Theme: DESMURGY
Three classes
Learning objectives
- Study the rules of bandaging.
- Learn how to apply gauze bandages on all parts of the human body.

«DESMURGY 1»
Key questions
Bandage and bandaging.
- Fixing bandage: gauze bandage, elastic mesh - tubular bandage (27), elastic bandage such as "ideal", a kerchief (9, 10), an adhesive plaster (5-7), a cleol label (1).
- Principles of soft bandaging.
- Types of bandages: circular (16, 17), spiral (18, 19), creeping (20), turtle (66), spica (64), figure-of-eight (21), T-shaped (12, 13), coming back (46).
- Methods of bandage application
  - on the head - a cap (31), Hippocrates cap (29), a bridle (30);
  - on the forehead - circular;
  - on the nape - crosswise (32);
  - on the eye - monocular (35 a); on both eyes - binocular (35 6);
  - on the ear - Neapolitan (34);
  - on the nose, a chin and lips - sling (28);
  - on the neck - circular bandage.

«DESMURGY 2»
Key questions
Methods of bandage application
- on the thorax – spiral (26), crosswise (22);
- on the interscapular region – crosswise (36);
- on the mammary gland – supporting (37);
- on the clavicle - Desault’s bandage (38);
- on humeral (23) and hip joints - spica;
- on the elbow joint – turtle (divergent and convergent) (54);
- on the shoulder (55) and a forearm (53) - spiral;
- on the hand– crosswise (52), "mitten" (50), "glove" (49);
- on the finger – spiral (45), coming back (46);
- on the basis of a thumb – spica (48);
- on the foot - coming back (63), spica (64);
- on the heel – turtle (66);
- on the ankle joint – figure-of-eight (67);
- on the shin and hip – spiral (68);
- on the knee joint – turtle (divergent and convergent) (24);
- on the inguinal region - spica (57, 59);
- on the buttock - spica (57);
- on the perineum – figure-of-eight (60), T-shaped (12, 13);
- on the scrotum – suspensory (12, 13);
- on the abdomen – spiral bandage.
«DESMURGY 3»
Practical skills mastering
1. Acquiring practical skills in the application of triangular bandages (9, 10, 28, 51, 58, 61, 65), labels (1), bandages of elastic mesh - tubular bandage (27, 69-76).
2. Getting acquainted with complex bandaging (55, 68).
3. Final test in all types of bandages with students grading.

Sources of information
- Общая хирургия: Учеб. пособие./Г.П.Рычагов, П.В.Гарелик, В.Е.Кремень и др.-Мн.: Интерпрессервис; Книжный дом, 2002.
- Юрихин А.П. Десмургия.-Киев, 1978 (Numbers of figures in the textbook are given in brackets).

Theme: ASEPSIS 1
Learning objectives
- Study the structure of surgical department and operating block.
- Get acquainted with medical instruments.

Key questions
- Asepsis and antiseptics, their essence.
- Sources of infection: exogenous, endogenous.
- Ways of invasion of exogenous infection: airborne, drop, implantation, contact, infusion.
- Ways of distribution of endogenous infection: contact, lymphogenous, hematogenous, extents.
- Air infection prophylaxis.
- Arrangement of surgical department (wards, the operational block, dressing room, procedural room, bathroom, linen room, eating establishment, dining room, staff lounge, etc.).
- Rooms of the operational block: operating room, preoperative room, sterilization room, instrumental room, room for the patient, room for the personnel, room for the equipment.
- Types of the operating room cleaning (preliminary, current, postoperative, final, general).
- Prophylaxis of implantation infection.
- Suture materials, their types.
- Sterilization of silk.
- Sterilization of kapron.

Sources of information
- Lecture.

Theme: ASEPSIS 2
Learning objectives
- Master the techniques and methods of sterilization of instruments, bandaging, linen and suture materials.

Key questions
- Contact infection prophylaxis.
- Sterilization of instruments.
- Presterilization preparation of instruments.
- Autoclave structure.
- Sterilization of gloves.
- Sterilization of bandaging and linen.
- Sterility control.
- Surgical hand antisepsis.
- Preoperative skin preparation (general, special).
- Peculiarities of operative field treatment in children and patients with high sensitivity to iodine.
- Cleansing of surgeon’s hands during the operation.

Sources of information

- Lecture.

Theme: ANTISEPSIS

Learning objectives

- Study the types of antisepsis, main antiseptics.
- Get acquainted with the chemical methods of sterilization of instruments and suture materials.

Key questions

- Antisepsis.
- Types of antisepsis.
- Methods of mechanical antisepsis.
- Methods of physical antisepsis.
- Chemical antiseptics.
- Biological antiseptics.

Sources of information

- Lecture.

Theme: ANESTHESIA 1

(inhalation and noninhalation narcosis)

Learning objectives

- Study the most common methods of inhalation and noninhalation narcosis used at surgical interventions.

Key questions

- Anesthesia, analgesia.
- Categories of anesthesia.
- Narcosis, types of narcosis.
- Inhaled anesthetics.
- Positive and negative properties of ether and other drugs of anesthesia.
- Gaseous narcotic drugs.
- The potency of anesthetics.
- Management of the airway during anesthesia.
Endotracheal narcosis.
Myorelaxants.
Preparation of the patient to narcosis.
Monitoring of the anesthetized patient.
Intravenous anesthetic agents.
Preoperative assessment and premedication.
Neuroleptanalgesia.
Advantages and disadvantages of intravenous narcosis.
Techniques of the intravenous narcosis introduction.

Sources of information
- Lecture.

Theme: ANESTHESIA 2
(local anesthesia)
Learning objectives
- Study the most common methods and types of local anesthesia.

Key questions
- Classification of local anesthesia.
- Local anesthetics.
- Contraindications for local anesthesia.
- Spinal anesthesia, complications.
- Epidural anesthesia, prolonged epidural anesthesia.
- Types of blocks.
- Monitoring during anesthesia.

Sources of information
- Lecture.

Theme: RESUSCITATION
Learning objectives
- Study the complications of narcosis and providing the life support measures in life-threatening situations.
- Learn the life support techniques in terminal conditions.
- Master the closed cardiac massage and artificial respiration methods.

Key questions
- Classification of complications of narcosis.
- Complications of narcosis in every stage.
The causes of asphyxia.
The order of medical assistance in asphyxia during narcosis.
Clinical picture of asphyxia.
Prophylaxis and help in laryngospasm, bronchospasm, falling back of the tongue, vomiting.
Methods of artificial respiration.
Cardiac arrest.
Symptoms of primary cardiac arrest.
Closed cardiac massage.
Defibrillation.
Terminal conditions, clinical picture and medical assistance.

Sources of information
- Lecture.

**Theme: HEMORRHAGE**

**Learning objectives**
- Learn to differentiate various types of hemorrhages.
- Perform temporary control of bleeding.
- Get the general idea of the bleeding final control.

**Key questions**
- The causes of hemorrhage.
- Types of hemorrhage.
- Measuring blood loss.
- Pathological reactions and adaptive mechanisms in hemorrhage.
- Dangers of hemorrhage.
- Symptoms of internal hemorrhage.
- Mechanisms of the bleeding self-stopping.
- Outcomes of hematomas.
- Methods of temporary control of bleeding.
- Technique of tourniquet application and digital pressing the arteries.
- Methods of bleeding final control.
- Chemical hemostatics.
- Biological hemostatics.

**Sources of information**
- Lecture.
Theme: BLOOD GROUPING AND RHECUS FACTOR DETERMINING

Learning objectives
- Study blood grouping and Rhesus factor determining techniques by standard blood serums and colyclones.

Key questions
- Principles of isohemagglutinated reaction.
- Agglutinogens and agglutinins, their versions.
- Rh-system and its features.
- Blood grouping by standard blood serum, standard erythrocytes and colyclone anti-A, anti-B.
- Rhesus factor determination by Rh-antiserum and by colyclone anti-D.
- Requirements to standard blood serums.
- Mistakes at blood grouping.

Sources of information
- Lecture.

Theme: BLOOD COMPONENTS TRANSFUSION

Learning objectives
- Study the methods of blood components transfusion.
- Study the doctor’s performance before blood components transfusion.
- Perform all necessary tests and fill in appropriate medical documentation.

Key questions
- The doctor’s performance before blood components transfusion.
- Indications and contra-indications for blood components transfusion.
- Determination of the validity of blood.
- Determination of individual compatibility.
- Determination of compatibility by Rhesus factor.
- Biological test.
- Technique of indirect blood transfusion. Preparation and filling the system.
- Sources of blood reception.
- Mechanisms of action of the transfused blood components.
- Complications at blood transfusion.

Sources of information
- Lecture.

Theme: BLOOD COMPONENTS TRANSFUSION
(seminar class)

Learning objectives
- Study all theoretical and practical questions on blood transfusion.
- Study the possible complications at blood transfusion, methods of their prophylaxis and treatment.

**Key questions**

- Principles of isohemagglutinated reaction.
- Agglutinogens and agglutinins, their versions.
- Rh-system and its features.
- Blood grouping by standard blood serums, standard erythrocytes and colyclones anti-A, anti-B.
- Rhesus factor determination by Rh-antiserum and by colyclone anti-D.
- Requirements to standard blood serums.
- Mistakes at blood grouping.
- Sources of Rh-antiserum reception.
- Donor service. Contra-indications for being a donor, health protection of donors.
- Other sources of blood reception (autoblood, umbilical-placentary).
- Ways of blood preparation and methods of its conservation.
- Changes occuring in blood at its storage.
- Destiny of blood after transfusion.
- Mechanisms of action of blood components after transfusion.
- The doctor’s performance before blood components transfusion.
- Indications and contra-indications for blood components transfusion.
- Determination of the validity of blood.
- Determination of individual compatibility and compatibility by a Rhesus factor.
- Biological test.
- Techniques of indirect blood transfusion.
- Indications for intraarterial blood transfusion, techniques.
- Complications at blood transfusion (types).
- Posttransfusion reactions.
- Air embolism, mechanisms of occurrence, prophylaxis.
- Clinical picture and treatment of posttransfusion shock.
- Syndrome of massive transfusions.
- Citrate and potassium intoxication.
- Syndrome of acute pulmonary insufficiency.
- Components and preparations of blood (erythrocytic suspension and packed red blood cells, packed white blood cells, packed thrombocytes (platelet concentrate), dried plasma, blood serum, antihemophilic plasma, antistaphylococcal plasma, etc.).
- Blood substitutes, classification, the mechanism of action in groups.
- Preparations for parenteral nutrition.

**Sources of information**

- Lecture.

**Theme: DRESSING ROOM 1**
Learning objectives
- Practice bandaging, surgical debridement, removing stiches, applying label and triangular bandages, using asepsis and antisepsis.

Key questions
- Organization of work in a dressing room.
- Sterilization of instruments.
- Preparation of a sterile little table.
- Revision of section «Asepsis and antiseptics».
- Revision of section «Desmurgy».

Sources of information

- Общая хирургия: Учеб. пособие./Г.П.Рычагов, П.В.Гарелик, В.Е.Кремень и др.-Мн.: Интерпрессервис; Книжный дом, 2002.
- Lecture.

Theme: OPERATING ROOM 1

Learning objectives
- Get acquainted with surgical operation and with direct preparation for the operation.
- Apply the knowledge of asepsis, antisepsis, anaesthesia and methods of bleeding control in the operative theater.

Key questions
- Surgical operation.
- Ways of exogenous infection intervention into a wound.
- Prophylaxis of contact infection.
- Prophylaxis of air-drop infection.
- Prophylaxis of implantation infection.
- Methods of final control of bleeding.

Sources of information

- Lecture.

Theme: TAKING ANAMNESIS. OBJECTIVE EXAMINATION OF PATIENTS

Learning objectives
- Study the skills of working with patients.
- Learn how to collect and record complaints, anamnesis of illness and anamnesis of life.
- Master the skills of examination of a patient on systems.
- Study the local symptoms of disease.

Key questions
- Filling in the passport part of a case history.
- Collecting complaints on systems: breathing, cardiovascular system, digestion, urinogenital system, nervous system, bones and joints.
- History of the present disease: the beginning of a disease, the cause, contributory factors, the course of symptoms development.
- History of life of a patient: the childhood, youth, working conditions, living conditions, diseases, operations, heredity, family anamnesis, harmful habits, allergic anamnesis.
- Methods of the respiratory organs examination.
- Cardiovascular system. Definition of pulsation on all peripheral vessels. Auscultation of large vessels.
- Methods of the digestive organs examination. Symptoms of irritation of peritoneum: Voskresensky, Razdolsky, Stchetkin-Blumberg. Determination of the borders and the sizes of liver, free gas and liquid in the abdominal cavity.
- Urinogenital system.
- Nervous system.
- Examination of the local manifestation of disease - st. localis.

Sources of information
- Общая хирургия: Учеб. пособие./Г.П.Рычагов, П.В.Гарелик, В.Е.Кремень и др.-Мн.: Интерпрессервис; Книжный дом, 2002.

Theme: CASE HISTORY
Learning objectives
- Make the examination of the patient.
- Write the case history, applying the learned examination method.

Key questions
- Revise the method of examination of a surgical patient.
- Take the history.
- Objective examination on systems.
- The description of local manifestation of disease.

Sources of information
- Общая хирургия: Учеб. пособие./Г.П.Рычагов, П.В.Гарелик, В.Е.Кремень и др.-Мн.: Интерпрессервис; Книжный дом, 2002.

Theme: INJECTIONS
Learning objectives
- Practice giving subcutaneous, intramuscular injections and intravenous infusions following the rules of asepsis.

Key questions
- Principles of medical drugs (antibiotics) dissolution, and the rules of taking drugs from ampoules and vials.
- Methods of subcutaneous and intramuscular injections.
- Filling in the system for intravenous infusion.
- Venipuncture.
- Complications at intramuscular injections.
Theme: POLYCLINIC 1

Learning objectives
- Study the structure of surgical department in a polyclinic, the system of outpatient examination of patients and medical documentation.
- Study the theoretical and practical aspects on burns.

Key questions
- The structure of a polyclinic.
- Surgical patient documentation.
- Classification of burns.
- Systemic effects of burning.
- Determination of the area and depth of the burned surface.
- Criteria of severity of burned injury.
- Principles of the first medical aid in burns.
- Local and general treatment.
- Principles of transfusion therapies in burns.

Sources of information
- Lecture.

Theme: PURULENT DISEASES OF SOFT TISSUES

(Acute purulent diseases of soft tissues)

Learning objectives
- Learn to differentiate various purulent diseases of skin and subcutaneous fat, stages of inflammation.
- Get acquainted with principles of treatment depending on the stage of disease.

Key questions
- Furuncle, furunculosis.
- Carbuncle.
- Abscess.
- Phlegmon.
- Clinical signs. Principles of diagnosing and treatment of all the listed above diseases.

Sources of information
Lecture.

Theme: OPEN INJURIES
(seminar class)

Learning objectives
- Study the clinical signs, classification and types of wound healing process.
- Study the methods of surgical treatment of wounds.
- Get acquainted with the treatment of purulent wounds.
- Study the theoretical and practical aspects on burns, frostbites and electrical injuries.

Key questions
- Description of wounds.
- Wounds with small and large zone of damage.
- Classification of wounds depending on infection.
- Symptoms of wounds.
- Types of healing.
- The conditions determining the type of healing.
- Stages of healing process.
- Course of pathological processes in healing wounds by a primary and secondary tension.
- Healing wounds under a scab.
- Primary surgical sutures (early, delayed).
- Features of wounds treatment in conditions of the nuclear weapon application.
- Secondary surgical treatment of wounds.
- Secondary sutures (early, late).
- Treatment of purulent wounds, kinds.
- Classification of burns.
- Systemic effects of burning.
- Determination of the area and depth of the burned surface.
- Criteria of severity of burned injury.
- Principles of the first medical aid in burns.
- Local and general treatment.
- Principles of transfusion therapies in burns.

Sources of information
- Lecture.

Theme: OPERATING ROOM 2

Learning objectives
- Get acquainted with surgical operation and with direct preparation for the operation.
- Consolidate the knowledge of asepsis, antisepsis, anesthesia and methods of patient’s monitoring in the course of operation.

**Key questions**

- Preparation of the patient for operation.
- Premedication.
- Types of anesthesia.
- Methods of narcosis.

**Sources of information**

- Lecture.

**Theme: TRANSPORT IMMOBILIZATION**

**Learning objectives**

- Study the clinical signs of bone fractures and methods of immobilization of limbs by means of standard and improvised splints.
- Get acquainted with the first-aid treatment in traumas.

**Key questions**

- Classification of fractures.
- Symptoms of fractures: pain, deformation, dysfunction, change of length, pathological mobility, crepitation.
- Indications for immobilization.
- Principles of immobilization.
- The purpose of transport immobilization: reduction of pain, prevention of shock, prevention of the fragments displacement and damages to the surrounding soft tissues and skin.
- Adjustment of improvised splints in various fractures.
- Standard fixation and extensive splints: Kramer, Diterix, CITO, pneumatic splints, etc.
- Applying splints in various localizations of fractures.
- Symptoms and methods of dislocation reposition.

**Sources of information**

- Lecture.

**Theme: TREATMENT OF FRACTURES**

**Learning objectives**

- Study various methods of hospital treatment of fractures (one-stage reposition, skeletal extension, operative methods).

**Key questions**

- Treatment of bone fractures: reposition, immobilization, acceleration of consolidation.
- Reposition, types, conditions of its performance.
Indications for skeletal extension, techniques of its performance.
Points of carrying out the extension wire.
Extension by soft tissues: adhesive plaster traction, glue traction.
Compressive-distractive osteosynthesis (Ilizarov's apparatus, Gudushauri’s apparatus).
Operative treatment of fractures: indications, methods of fixing of bone fragments.

Sources of information
- Lecture.

Theme: PLASTER CASTS
Learning objectives
- Learn the main principles of applying plaster casts.

Key questions
- Types and the causes of displacement.
- Diagnostics of bone fractures: symptoms, radiography.
- Regeneration of bone tissue, types of bone callous.
- Chemical structure and properties of plaster.
- Tests on the quality of plaster.
- Correction of the dampened plaster.
- Preparation of plaster bandages.
- Kinds and types of plaster casts and ways of their application.
- The middle-physiological and functional - favourable position of limbs.
- Removal of plaster cast.
- Fixing bandages of polymeric cellular body.

Sources of information
- Lecture.

Theme: CLOSED INJURIES
Learning objectives
- Study the clinical features, diagnostics and treatment of closed traumas of the skull, thorax, limbs.
- Get acquainted with compression syndrome.

Key questions
- Closed injuries. Types. Pathologic changes in soft tissues. Treatment.
- Trauma of thorax: contusion, fracture of ribs, pneumothorax, hemothorax.
Compress syndrome:
- etiology, pathogenesis;
- time periods of compression syndrome;
- degrees of severity;
- clinical signs;
- mechanism of renal insufficiency development;
- first-aid treatment;
- principles of treatment.

Syndrome of positional compression.

Sources of information
- Lecture.

Theme: GENERAL DISORDERS IN DAMAGES

Learning objectives
- Study the clinical features, diagnostics and treatment of general disorders in damages (syncope, collapse, shock).
- Get acquainted with phenomenon of central blood circulation.

Key questions
- Classification of general disorders in damages.
- Syncope. Clinic. Medical care.
- Collapse, the causes. Treatment of hypovolemic and normovolemic collapse.
- Treatment of traumatic shock.
- Prophylaxis of shock during the medical care provision to the wounded patients.

Sources of information
- Lecture.

Theme: PREOPERATIVE CARE
(Preoperative care. Prophylaxis of postoperative complications)

Learning objectives
- Study the modern ways of preoperative care, prophylactic measures and treatment of postoperative complications.

Key questions
- Types of operative interventions.
- Preoperative care: general, special, system-based.
- Features of patients preparation depending on the degree of operational risk.
- Methods of increasing organism resistency to operational trauma.
- Prophylaxis of pulmonary complications.
- Prophylaxis of decubituses.
- Prophylaxis of thromboembolism.

**Sources of information**
- Lecture.

**Theme: POSTOPERATIVE PERIOD**

**Learning objectives**
- Study the modern prophylactic measures and treatment of postoperative complications.
- Master the basic elements of seriously ill patients’ care.

**Key questions**
- Postoperative period.
- Early postoperative complications.
- Late postoperative complications.
- Delayed complications.
- Prophylaxis and treatment of motor intestinal upset.
- Treatment of urination disorders.
- Technique of constant aspiration of gastric contents.
- Restoration of water-salt exchange.
- Parenteral nutrition.
- Types of enemas and techniques of their performance.

**Sources of information**
- Lecture.

**Theme: DRESSING ROOM 2**

**Learning objectives**
- Practice bandaging, surgical debridement, removing stiches, applying label and triangular bandages, using the rules of asepsis and antisepsis.

**Key questions**
- Description of wounds.
- Wounds with small and large zone of damage.
- Classification of wound depending on infection.
- Symptoms of wounds.
- Types of healing.
- Conditions determining the type of healing.
- Stages of healing process.
- Course of pathological processes in healing wounds by primary and secondary tension.
- Healing of wounds under a scab.
- Treatment of wounds.

**Sources of information**
Theme: PURULENT DISEASES OF GLANDS. LYMPHANGITIS. LYMPHADENITIS. ERYSIPELAS.

Learning objectives
- Master the techniques of clinical examination and treatment of purulent diseases of mammary and sweat glands.
- Learn to differentiate purulent diseases of lymphatic glands and vessels, stages of inflammation.
- Get acquainted with principles of treatment depending on the stage of disease.

Key questions
- Etiology and pathogenesis of mastitis.
- Stages and forms of mastitis.
- Localization of abscesses.
- Features of abscess lancing.
- Prophylaxis of mastitis.
- Hydradenitis.
- Erysipelas.
- Lymphangitis, lymphadenitis.
- Clinical signs. Principles of diagnosing and treatment of all the listed above diseases.

Sources of information
- Lecture.

Theme: PURULENT DISEASE OF BONES AND JOINTS

Learning objectives
- Master the techniques of clinical examination and treatment of purulent diseases of bones and joints.

Key questions
- Etiology and pathogenesis of acute and chronic osteomyelitis.
- Stages of acute hematogenous osteomyelitis.
- Clinical signs of osteomyelitis.
- Radiological signs of acute and chronic osteomyelitis.
- Sequestrations, sequestrum cavity.
- Forms of primary chronic osteomyelitis.
- Treatment of acute and chronic osteomyelitis (conservative, operative).

Sources of information
- Lecture.

Theme: PURULENT DISEASES OF FINGERS AND HAND
Learning objectives
- Study the clinical signs of purulent diseases of fingers and hand, classification of panaritium.
- Get acquainted with the methods of treatment depending on the stage of the inflammatory process.

Key questions
- Etiology and pathogenesis of panaritium.
- Classification of panaritium: skin, hypodermic, tendinous, articular, bone, subungual, paraungual, pandactylitis.
- Peculiarities of clinical signs and course in every form of panaritium.
- Technique of examination of the patient with panaritium.
- Principles of treatment depending on the stage and phase of the inflammatory process.
- Differential diagnostics of phases of inflammation.
- Methods and techniques of operative treatment in each form of panaritium.
- Classification of pyoinflammatory processes of the hand (palmar and back surface).
- Features of treatment of separate localizations of hand abscesses.

Sources of information
- Lecture.

Theme: SEPSIS
Learning objectives
- Study the features of modern sepsis, principles of its treatment.

Key questions
- Etiology.
- Features of etiological agent in modern conditions.
- Pathogenesis.
- Classification of sepsis.
- Clinical signs.
- Diagnostics.
- Forms of sepsis.
- Pathologic features.
- Principles of treatment: local, general.
- Features of antibacterial therapy.
- Modern methods of detoxication.
Sources of information
- Lecture.

Theme: TETANUS
(seminar class)
Learning objectives
- Study the etiology, pathogenesis, clinical signs and treatment of tetanus.
- Consider the importance of tetanus prophylaxis.

Key questions
- Etiology and pathogenesis of tetanus.
- Classification of tetanus:
  ✓ by the place of introduction of the pathogenic organism;
  ✓ by distribution;
  ✓ by clinical course.
- Clinical signs of tetanus:
  ✓ initial symptoms
  ✓ early symptoms
  ✓ typical and atypical course.
- Complications and the reasons of death due to tetanus.
- Features of transportation of the patient with tetanus.
- Treatment:
  ✓ reduction of entrance and neutralization of tetanic toxin
  ✓ reduction and eradication of spasms
  ✓ prophylaxis of complications, normalization of cardiac function and improvement of pulmonary ventilation.
- Prophylaxis of tetanus: nonspecific and specific, elective and emergency (passive, active, active - passive).
- Ways and methods of the injection of antitetanus serum.

Sources of information
- Lecture.

Theme: GAS GANGRENE. ANAEROBIC INFECTION
Learning objectives
- Study the pathogenesis, clinical signs and treatment of anaerobic infection.

Key questions
- Etiology and pathogenesis of gas gangrene.
- Classification of anaerobic infection.
- Clinical stages of anaerobic infection.
Semiology.
Methods of diagnostics.
Treatment: surgical, specific, nonspecific.
Prophylaxis of gas gangrene.
Causative agents of putrefactive infection.
Features of anaerobic infection course.
Treatment regimen of anaerobic infection.

Sources of information

- Lecture.

Theme: BLOOD CIRCULATION DISORDERS

Learning objectives
- Study the main causes of blood circulation disorders: the acute and chronic diseases resulting in arterial and venous insufficiency and complications of these pathological conditions - necrosis, gangrenes, ulcers, fistulas.
- Practise work in surgical department II.

Key questions

- Acute arterial insufficiency.
- Thromboses. Embolisms.
- Chronic arterial insufficiency.
- Obliterating endarteritis and atherosclerosis of arteries of lower limbs.
- Diabetic angiopathy.
- Syndrome of acute venous insufficiency.
- Acute thrombophlebitis of deep and superficial veins. Phlebothrombosis.
- Postthrombophlebitic syndrome.
- Necrosis, gangrenic, ulcer.

Sources of information

- Lecture.
Theme: PLASTIC AND REGENERATIVE SURGERY. QUESTIONS OF TRANSPLANTOLOGY

Learning objectives
- Study the modern aspects of transplantology and plastic surgery.

Key questions
- Modern terminology of transplantology: vital and static transplants; orthotopic and heterotopic transplantation; autoplasty, alloplasty, xenoplasty, heteroplasty.
- Problem of biological compatibility and ways of its overcoming.
- Plasty of skin, muscles, tendons.
- Plasty of bones, joints and nerves.
- Organs and endocrine gland transplantation.
- Microsurgical methods in plastic and regenerative surgery.
- Social and psychological problems in the transplantation of organs.

Sources of information
- Lecture.

Theme: CHRONIC SPECIFIC INFECTION

Learning objectives
- Study the basic forms of chronic specific infectious diseases: tuberculosis and actinomycosis.

Key questions

Sources of information
- Lecture.
Program questions on General Surgery for the Faculty of General Medicine.

3. Achievements of modern surgery.
4. N.I. Pirogov, his role in the development of anesthesiology.
5. N.I. Pirogov, his role in the development of surgery and medical education.
6. Deontology. Interrelation of the doctor with the patient and his relatives, with colleagues and medical staff.
8. Mechanical and physical antiseptics.
9. Chemical antiseptics. The substances used for chemical antiseptics.
11. The complications due to antibiotics and their prophylaxis.
12. Asepsis. Sources and ways of distribution of infection in the organism.
13. Surgical hospital. The operational block and its routine work.
15. Prophylaxis of exogenous and endogenous contamination.
16. Modern ways and methods of sterilization of dressing materials and operational linen.
17. Types of surgical instruments. Ways of sterilization of instruments depending on their type.
22. Modern ways of sterilization of instruments with optical system.
23. Problem of hospital infection in surgery, characteristic features and ways of contamination.
27. Preparation for operation on gastrointestinal tract. Types of enemas, techniques of the performance.
28. Preoperative period. Basic goals and principles of preliminary and immediate preparation for operation.
30. Surgical operation. Indications for operation. Types of operative interventions.
31. Modern principles of preoperative preparation of patients before urgent and elective operative interventions.
32. Desmurgy. Kinds and types of bandages.
34. Inhalation narcosis. Narcotic substances, the equipment used during inhalation narcosis.
35. Early and late symptoms of narcotic substances overdose.
37. Narcosis with hypothermia and hypotonia.
38. Endotracheal and endobronchial narcosis and ALV.
40. Monitoring during anaesthesia.
42. Neuroleptanalgesia (NLA).
44. Complications of narcosis in postoperative period, possible causes of asphyxia.
45. Noninhalation narcosis, its types. Narcotic substances used for noninhalation narcosis.
46. Local anesthesia during operations. Substances used for anesthesia. Novocaine blocks.
48. Types of regional anesthesia.
50. Spinal anesthesia. Possible complications.
52. Measuring blood loss, principles of compensation.
54. Methods of temporary hemostasis.
57. Indications and technique of tourniquet application.
58. History of blood transfusion and the organization of blood transfusion service.
59. Blood groups by AB0 systems and "rhesus factor".
60. Indications and contraindications for transfusion of blood components. Mechanism of action of transfused blood components.
63. Blood grouping using standard serums and colyclones.
64. Mistakes during blood grouping.
65. Actions before transfusion of blood components.
66. Antigenic system "rhesus factor". Determination of rhesus-attribute of blood. Test on rhesus factor compatibility.
69. Clinical features and treatment of posttransfusion shock.
70. Syndrome of massive hemotransfusions.
71. Components and preparations of blood.
73. Hemodynamic and disintoxicative blood substitutes.
74. Preparations for parenteral nutrition.
77. Collapse, the causes. Treatment of hypovolemic and normovolemic collapse.
80. Treatment of traumatic shock.
81. Prophylaxis of shock during the medical care provision to the wounded patients.
82. Terminal conditions, sequence of medical assistance procedures.
84. Closed injuries, types of them. Soft tissue contusion. Pathoanatomical changes of soft tissues.
86. Contusion of joint, hemarthrosis. Sprains, ruptures of ligaments, muscles. Treatment.
88. Closed injuries of abdominal cavity organs: parenchymatous, hollow.
89. Wounds, their classification. Symptoms of wounds.
90. Course of pathological processes and pathoanatomical changes in wound healing. Wound process. Stages of healing process.
92. Wound healing by secondary intention. Factors causing wound healing by secondary intention.
93. Healing wounds of muscles, sinews, bones, cartilages, parenchymatous organs.
94. Healing wounds of brain, peripheral nerves, blood vessels.
96. Surgical treatment of wounds.
98. Initial surgical debridement. Indications. Terms and principles of its fulfilment.
102. Treatment of purulent wounds in different phases of wound process course. Modern principles of treatment.
104. Treatment of fractures. Three components of treatment system.
105. Medical care in bone fractures: a) in the place of accident; b) in surgical department.
106. Techniques of closed reduction of fragments in fractures.
108. Surgical treatment of fractures.
111. Pseudoarthrosis. Causes. Treatment.


117. Factors determining degree of severity of patient’s condition in crush syndrome of soft tissues.


119. Modern treatment of patients in crush syndrome of soft tissues depending on degree of severity of the condition.

120. Concrete actions in the provision of medical care to victims with crush syndrome at the site of incident and during transportation to medical establishments.

121. Principles of pyogenic infection prophylaxis at operative interventions and the system of treatment.

122. Surgical infection. Factors determining the development and course of surgical infection.

123. The description, etiology and pathogenesis of surgical infection.

124. The description of common phenomena in surgical infection.

125. Objectives of local treatment of surgical infection.

126. Principles of operative intervention in surgical infection.

127. Objectives of general treatment in surgical infection.


129. Principles of abscess and phlegmon drainage.


131. Purulent diseases of hand.


133. Tendinous panaritium. Features of course on different fingers. Y-shaped phlegmon.

134. Bony and articular panaritium.


147. System of complex therapy of sepsis (local, general treatment).

148. Methods of organism detoxication in generalized purulent infection.


150. Specific and nonspecific prophylaxis of tetanus.


152. Causes of lethal outcomes in tetanus. Ways of lethality decreasing.


158. Surgical methods of treatment of bones and joints tuberculosis.
162. Surgical treatment of anthrax.
163. Diphtheria of wounds.
164. Surgical parasitic diseases (echinococcasis, ascariasis, opisthorchiosis, amebiasis).
166. Acute disorder of arterial blood circulation.
168. Thromboembolic complications. Prophylaxis and main principles of treatment of thromboses and embolisms.
170. Local and general effects in burns. Death causes in early and late stages.
171. Burn shock. Treatment.
173. Local treatment of burns (open and closed method).
174. Methods of operative interventions used in treatment of thermal burn.
177. Frostbites. Diagnosis and treatment.
180. Physical and chemical carcinogenic factors.
181. Biological carcinogenic factors.
183. Clinical groups of oncolgical patients.
185. International classification (terminology) of malignant growth stages.
186. Treatment methods of patients with malignant neoplasms.
187. Surgical treatment of malignant growths, possible kinds of operations.
188. Ablastics and antiblastics.
189. Terminology in plastic surgery.
190. Skin plasty by free graft. Methods.
192. Plasty of vessels, bone tissue, nerves, tendons.
193. Transplantation of bone and muscular tissue. Transplantation of marrow.