

**Ministry of Science and Higher Education of the Russian Federation**  
**«Kazan (Volga region) Federal University»**

Institute of Fundamental Medicine and Biology  
General Medicine  
Department of Surgery, Obstetrics and Gynecology  
General surgery

**№1**

1. The concept of surgery and surgical pathology. History of surgery. The current state of surgery. Organization of outpatient and inpatient surgical care.
2. Preoperative period. The main tasks of the preoperative period. Preparation for emergency, urgent and planned operations.
3. Injuries. Classification. General principles of diagnosis. Stages of assistance.
4. General issues of purulent infection. Etiology and pathogenesis. Pathogenes. Sources of surgical infection. Nosocomial infection. Local and General reaction to infection. Prevention. Principles of general and local treatment.

Head of department \_\_\_\_\_ Zinchenko S.V.

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**№2**

1. The concept of surgery and surgical pathology. History of surgery. The current state of surgery. Organization of outpatient and inpatient surgical care.
2. Instrumental methods of examination in surgery. Their types and sequence of application. The role and place of instrumental methods of examination in diagnosis. Preparation of the patient for instrumental methods of examination.
3. Injuries. Classification. General principles of diagnosis. Stages of assistance.
4. General issues of purulent infection. Etiology and pathogenesis. Sources of surgical infection. Nosocomial infection. Local and General reaction to infection. Prevention. Principles of general and local treatment.

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**№3**

1. History of Russian surgery and surgery in Kazan.
2. Postoperative period. The reaction of the patient's body to an operating injury.
3. Closed soft tissue damage. Bruises, sprains, lacerations. Clinic, diagnosis, treatment.
4. Acute purulent diseases of the skin and subcutaneous tissue: boils, carbuncle, lymphangitis, lymphadenitis, hidradenitis.

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**№4**

1. History of Russian surgery and surgery in Kazan.
2. Instrumental methods of examination in surgery. Their types and sequence of application. The role and place of instrumental methods of examination in diagnosis. Preparation of the patient for instrumental methods of examination.
3. Traumatic toxicosis. Pathogenesis, clinical picture. Modern treatment methods.
4. Acute purulent diseases of the skin and subcutaneous tissue: erisipeloid, erysipelas, phlegmons. Etiology, pathogenesis, clinic, General and local treatment.

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**№5**

1. History of asepsis and antiseptics.
2. Surgery. Type of operation. Stages of surgical operations. Legal basis of the operation.
3. Critical disorders in surgical patients. Faint. Collapse. Shock.
4. Acute purulent diseases of cellular spaces. Neck phlegmons. Classification, diagnosis, treatment.

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**№6**

1. History of asepsis and antiseptics.
2. Surgery. Type of operation. Stages of surgical operations. Legal basis of the operation.
3. Terminal States: agony, clinical death. Signs of biological death. Resuscitation measures. Performance criterion.
4. Subfascial and intermuscular phlegmons of the extremities. Axillary and subpectorally cellulitis. Clinical picture, features of diagnosis, treatment.

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**№7**

1. The concept of asepsis. Sources and ways of spreading surgical infection. Nosocomial (hospital) infection in a surgical hospital.
2. Instrumental methods of examination in surgery. Their types and sequence of application. The role and place of instrumental methods of examination in diagnosis. Preparation of the patient for instrumental methods of examination.
3. Terminal States: agony, clinical death. Signs of biological death. Resuscitation measures. Performance criterion.
4. Purulent mediastinitis. Purulent paranephritis. Acute paraproctitis, rectal fistula. Clinic, diagnosis, treatment.

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**№8**

1. The concept of asepsis. Sources and ways of spreading surgical infection. Nosocomial (hospital) infection in a surgical department.
2. Postoperative complications. Prevention and treatment of postoperative complications.
3. Damage to the skull. Concussion, contusion, compression. First medical care, transportation. Principle of treatment.
4. Purulent diseases of glandular organs (parotitis, pancreatitis, prostatitis), causes, clinic, diagnosis and treatment.

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**№9**

1. The suppression of the microflora in the ways of air contamination. Organization of work of the surgical department and the operating unit for the prevention of airborne infection.
2. Hemostasis system. Method of research. Diseases with a violation of the coagulation system. The influence of surgical operations and drugs on the hemostatic system.
3. Injuries to the chest and organs in it: a clinic, first aid, treatment.
4. Acute purulent diseases of the hand and fingers: etiopathogenesis, classification, clinic, treatment, prevention.

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**№10**

1. Prevention of contact of the implant and microbial contamination. Sterilization method.
2. Disorders of blood clotting in surgical patients and the principles of their correction. Prevention and treatment of thromboembolic complications, hemorrhagic syndrome.
3. Injuries to the chest and organs in it: a clinic, first aid, treatment.
4. Peritonitis. Etiology, pathogenesis, clinic, diagnosis, treatment.

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**№11**

1. Prevention of contact of the implant and microbial contamination. Sterilization method.
2. Bleeding and blood loss, concept, classification, causes. The reaction of the body to blood loss, pathophysiological and compensatory mechanisms, developing at the same time. Mechanisms of hemostasis, methods of its study.
3. Abdominal injury. Damage to the abdominal cavity and retroperitoneal space. Clinical picture. Modern methods of diagnosis and treatment. Features of combined injuries of the abdomen.
4. Pleurisy. Etiology, pathogenesis, clinic, diagnosis, treatment.

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**№12**

1. Sterilization of operating clothes, linen, surgical gloves, drains, dressings, surgical instruments. Packaging and storage of sterile material. Sterility control.
2. Classification of bleeding. Local and General symptoms of bleeding. Diagnostics.
3. Abdominal injury. Damage to the abdominal cavity and retroperitoneal space. Clinical picture. Modern methods of diagnosis and treatment. Features of combined injuries of the abdomen.
4. Surgical sepsis. Classification. Etiology and pathogenesis. Representation of the entrance gate, the role of macro-and microorganisms in the development of sepsis. Clinical picture, diagnosis, treatment.

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**№13**

1. Surgical hand preparation. Preparation the operating theatre and operating field.
2. Classification of bleeding. Local and General symptoms of bleeding. Diagnostics.
3. Dislocations. Clinical picture, classification, diagnosis. First aid, treatment of dislocations. Shoulder dislocation.
4. Acute purulent diseases of bones and joints. Acute hematogenous osteomyelitis. Acute purulent arthritis. Etiology, pathogenesis. Clinical picture. Medical tactics.

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**№14**

1. Surgical hand preparation. Preparation the operating theatre and operating field.
2. Classification of bleeding. Local and General symptoms of bleeding. Diagnostics.
3. Dislocations. Clinical picture, classification, diagnosis. First aid, treatment of dislocations. Shoulder dislocation.
4. Acute purulent diseases of bones and joints. Acute hematogenous osteomyelitis. Acute purulent arthritis. Etiology, pathogenesis. Clinical picture. Medical tactics.

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**№15**

1. Sterilization of suture material, metal structures, prostheses, transplants. Modern means and methods of chemical sterilization and disinfection.
2. Bleeding and blood loss, concept, classification, causes. The reaction of the body to blood loss, pathophysiological and compensatory mechanisms, developing at the same time. Mechanisms of hemostasis, methods of its study
3. Treatment of fractures. Conservative and operative methods of treatment.
4. Chronic surgical infection. Tuberculosis of bones and joints. Tuberculous spondylitis, coxitis, drives. Principles of General and local treatment. Syphilis of bones and joints. Actinomycosis.

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**№16**

1. Definition of antisepsis. Types of antisepsis. Mechanical antisepsis. The concept of primary and secondary surgical management of wound, principles and stages of implementation.
2. Methods of final stopping bleeding. Mechanical, chemical, physical, biological methods of stopping bleeding.
3. Compression-distraction treatment of bone fractures. Treatment principles of fractures with slow consolidation of bone fragments. False joints.
4. Anaerobic infection. Gas phlegmon, gas gangrene. Etiology, clinic, diagnosis, treatment. Prevention.

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**№17**

1. Definition of antisepsis. Types of antisepsis. Mechanical antisepsis. The concept of primary and secondary surgical management of wound, principles and stages of implementation.
2. Methods of final stopping bleeding. Mechanical, chemical, physical, biological methods of stopping bleeding.
3. Wounds. Classification of wounds. Clinical picture. General and local reaction of the body. Diagnostic-stick injury.
4. Tetanus. Etiology, pathogenesis, treatment. Prevention

Head of department \_\_\_\_\_ Zinchenko S.V.

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**№18**

1. Physical antisepsis. Methods of physical antiseptics. Indications and technique.
2. The history of the blood transfusion learning. Immunological basis of blood transfusion.
3. Types of wound healing. The behavior of the wound process. Morphological and biochemical changes in the wound.
4. Tumors. Definition. Epidemiology. Etiology of tumors. Classification.

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**№19**

1. Chemical antisepsis. The main groups of antiseptics. Ways of using various chemical antiseptics.
2. The history of the blood transfusion learning. Immunological basis of blood transfusion.
3. Treatment principles of "fresh" wounds. Types of seams (primary, primary - delayed, secondary).
4. Benign tumors. The clinical picture, diagnosis. Indications for surgical treatment. Precancerous conditions.

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**№20**

1. Biological antisepsis. Types of biological antiseptics. Basic pharmacological medication and methods of their use. Passive and active immunization in surgery. Immune correction and immunostimulation.
2. ABO blood group system. Methods for the determination of blood groups in the ABO system.
3. Infectious complications of wounds. Purulent wounds. The clinical picture of purulent wounds. Microflora. General and local reaction of the body. Principles of general and local treatment of purulent wounds.
4. Malignant tumors. Clinical picture. Classification. Modern types of early diagnosis. Modern methods of treatment. Combined and complex treatment. Evaluation of the treatment effectiveness.

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**№21**

1. Local anesthesia. History of local anesthesia. Types of local anesthesia. Preparations for local anesthesia. Technique of certain types of local anesthesia. Possible complications and their prevention.
2. Antigenic system of Rh factor. Methods for determination of the Rh factor.
3. Endoscopy. The history of development. Areas of use. Video endoscopic methods of diagnosis and treatment. Indications, contraindications, complications.
4. Malignant tumors. Clinical picture. Classification. Modern types of early diagnosis. Modern methods of treatment. Combined and complex treatment. Evaluation of the effectiveness of treatment.

Head of department

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**№22**

1. Novocaine blockade. Indications, types and techniques of certain types of novocaine blockades.
2. The definition and methods for determining individual compatibility (ABO) and rhesus compatibility. Biological compatibility. Responsibilities of the doctor who transfuses of blood products.
3. Endoscopy. The history of development. Areas of use. Video endoscopic methods of diagnosis and treatment. Indications, contraindications, complications.
4. Organization of the oncological service in Russia

Head of department

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**№23**

1. General anesthesia. History of anesthesia. Modern views on the mechanisms of general anesthesia. Classification of anesthesia. Preparing patients for anesthesia, premedication and its implementation.
2. Blood transfusion. Indications and contraindications for transfusion of blood and its components. Modern concepts of blood transfusion by groups of the ABO system and the rhesus system. Ways and methods of transfusion of blood and its components.
3. Thermal burns. Pathogenesis. Classification and clinical picture. Prognosis.
4. Fundamentals of surgery of disturbed circulation. Arterial blood vascular diseases (acute and chronic). Clinic, diagnosis, treatment.

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**№24**

1. General anesthesia. History of anesthesia. Modern views on the mechanisms of general anesthesia. Classification of anesthesia. Preparing patients for anesthesia, premedication and its implementation.
2. Blood transfusion complications, prevention, diagnosis, treatment principles. Prevention of hepatitis B, HIV - infection.
3. Thermal burns. Pathogenesis. Classification and clinical picture. Prognosis.
4. Disturbed of the venous circulation (acute thrombosis and chronic venous insufficiency). Disturbed of lymph circulation (lymphostasis). Main reasons. Prevention of complications. Principles of diagnosis and treatment.

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**№25**

1. Inhalation anesthesia. Equipment and types of inhalation anesthesia. Modern inhalation anesthetic medication, muscle relaxants. Stages of anesthesia.
2. Blood transfusion complications, prevention, diagnosis, treatment principles. Prevention of hepatitis B, HIV - infection.
3. Burn disease. First aid for burns. Principles of local and general treatment of thermal burns.
4. Necrosis. Dry and wet gangrene. Causes of occurrence. Prevention. Methods of local and general treatment.

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**№26**

1. Intravenous anesthesia. Basic medications. Neuroleptanalgesia (NLA).
2. Organization of the donation service in Russia. Modern methods of preparation, conservation of blood and its components. Freshly stabilized and preserved blood, determination of the year of use. Principles of component therapy. Blood reinfusion, autohemotransfusion.
3. Chemical burns of the skin and internal organs. Radiation burns. Pathogenesis, clinical picture, first aid, treatment.
4. Ulcers, fistulas, bedsores. Causes of occurrence. Classification. Prevention. Methods of local and general treatment.

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**№27**

1. Modern combined intubation anesthesia. The sequence of its implementation and its benefits.
2. Blood-substituting solutions. Blood substitutes of hemodynamic action, detoxification solutions, blood substitutes for parenteral nutrition, regulators of water-salt metabolism and acid-base status, oxygen carriers, infusion antihypoxants.
3. Chemical burns of the skin and internal organs. Radiation burns. Pathogenesis, clinical picture, first aid, treatment.
4. Malformations of the skull, musculoskeletal system, digestive and urogenital system. Congenital heart defects. The clinical picture, diagnosis, treatment.

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**№28**

1. Modern combined intubation anesthesia. The sequence of its implementation and its benefits.
2. Endogenous intoxication in surgery and the principles of its correction. The main types of endotoxiosis. Comprehensive treatment.
3. Electrical injury: etiopathogenesis, classification, local and general manifestations, the first help and treatment.
4. Parasitic surgical diseases. Etiology, clinical presentation, diagnosis, treatment.

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**№29**

1. Complications of anesthesia and the immediate post-anesthetic period, their prevention and treatment.
2. Water-electrolyte disorders in surgical patients and the principles of fluid management. Types and causes of violations. Clinical and laboratory diagnostics. Indications, dangers and complications. Fluids for infusion therapy. Treatment of complications of fluid therapy.
3. Frostbite. Etiology. Pathogenesis. Clinical picture. Principles of general and local treatment.
4. General issues of plastic surgery. Skin, bone, vascular plastic. Filatov stem.

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**№30**

1. Methods of examination of the surgical patient. General clinical examination (examination, thermometry, palpation, percussion, auscultation), laboratory research methods.
2. Water-electrolyte disorders in surgical patients and the principles of fluid management. Types and causes of violations. Clinical and laboratory diagnostics. Indications, dangers and complications. Fluids for infusion therapy. Treatment of complications of fluid therapy.
3. Electrical injury: etiopathogenesis, classification, local and general manifestations, the first help and treatment.
4. Free transplantation of tissues and organs. Tissue incompatibility and methods to overcome it.

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