Autoclave

1. Definition of the concepts of "Asepsis", "Antiseptics", sterilization. disinfection, high-level disinfection.
2. Basic principles of asepsis.
3. Sources, types and ways of spreading surgical infection.
4. The main types of antiseptics and their characteristics. Mechanical antiseptics.
5. Physical antiseptics.
6. Chemical antiseptics. Requirements for chemical antiseptics.
7. Modern antiseptics. Their purpose and methods of application. Iodophores
8. Biological antiseptics.
9. Prevention of contact infection. Types of surgical underwear and dressing material.
10. Methods of laying surgical underwear and dressing material in bixes for sterilization.
11. Types and device of autoclave. Sterilization techniques and modes. Shelf life of sterile material.
12. Methods of autoclaving control. Bacteriological control of sterility and sterilization.
13. Modern packaging material for sterilization. Terms of preservation of sterility.
14. Hazards associated with the operation of the autoclave. Monitoring of the technical condition of the autoclave.
15. The hands of the participants of the operation as sources of surgical infection. Methods of preparing the surgeon's hands.
16. Preparation of the operating field in adults and children. Its features in areas of increased infection. Processing of the operational field.
17. Principles of rational antibacterial therapy.
18. Modern schemes of antibacterial therapy and preventive use of antibiotics.

Sterilization of instruments.

1. Definition of the concepts of "Asepsis" and "Antiseptics", "Sterilization", "Disinfection", "High-level disinfection".
2. D. Lister and his predecessors: Louis Pasteur, N.I. Pirogov, Ignaz Semmelweis.
3. Organization of surgical care in Russia. Medical insurance.
4. Basic principles of asepsis. Sources of infection, ways of its introduction and spread.
5. Prevention of airborne infection. The organization of work and the device of the operating room in the light of asepsis. The principle of zoning.
6. Prevention of HIV infection during surgery.
7. Cleaning mode in the operating room.
8. Organization of work and arrangement of a surgical hospital in the light of asepsis. The principle of stages.
9. The concept of infection associated with the provision of medical care (ISMP), hospital infection. Examples. Prevention.
10. Features of the surgical department in conditions of clostridial anaerobic infection.
11. Prevention of contact infection. The main types of surgical instruments and their classification. Special tools.
12. Pre-sterilization processing of tools and checking its quality.
13. Features of pre-sterilization treatment of instruments after contamination with clostridial anaerobic infection.
14. Treatment and disinfection of anesthesia and respiratory equipment.
15. Air sterilization of metal instruments. Direct and indirect method of sterility control.
16. Physical and chemical methods of sterilization.
17. High-level disinfection and sterilization of optical devices, rubber products and synthetic materials.
18. Prevention of implantation infection. Requirements for suture material. Classification of suture material.

Bleeding

1. Bleeding. Definition of the concept, reasons.

2. Classification of bleeding by source, in relation to the external environment and the time of occurrence.

3. Features of parenchymal bleeding.

4. Causes of secondary bleeding, their prevention.

5. Pathophysiological mechanisms of blood loss compensation.

6. Pathophysiological mechanisms of spontaneous stopping of bleeding.

7. Determination of the volume of blood loss and assessment of its severity. Blood loss of mild, moderate and severe severity.

8. General and local symptoms of bleeding; features of latent internal bleeding.

9. Diagnosis of bleeding, criteria for stopped and ongoing bleeding.

10. Ways to temporarily stop bleeding.

11. The technique of finger pressing the vessel.

12. The technique of applying a tourniquet, dangers and mistakes.

13. Final stop of bleeding: mechanical, thermal, chemical and biological methods.

Local anesthesia

1. Definition of local anesthesia.

2. Advantages and disadvantages of the method of local anesthesia.

3. Indications and contraindications to the use of local anesthesia, dangers during its implementation.

4. Types of local anesthesia and their characteristics. Potentiated local anesthesia. Premedication.

5. Terminal anesthesia, varieties, indications for use, drugs used and their single maximum dose, concentration of solutions.

6. Anesthesia according to A.V. Vishnevsky. The drugs used and their single maximum dose, concentration of solutions. Advantages of the technique over other methods of local anesthesia; complications.

7. Novocaine blockades. The drugs used and their single maximum dose, concentration of solutions.

8. Intravenous and intraosseous forms of local anesthesia (regional anesthesia). Methodology. Indications. Technic. Complications. The drugs used and their single maximum dose, concentration of solutions.

9. Anatomy of the spinal canal: the membranes of the spinal cord.

10. Subarachnoid and epidural anesthesia, points of application of anesthetics. The drugs used and their single maximum dose, concentration of solutions. Advantages and disadvantages of each method.

11. Comparative characteristics of local anesthetics (novocaine, trimecaine, lidocaine, dicaine) by anesthetic activity, duration of action, the ratio between the volume of injected anesthetics and their concentration.

12. Choosing the method of anesthesia.

13. Features of anesthesia in children.