“Professional competence” General Surgery Examination program

Explanation: Examination question is given in plain text, Italic text means the contents of the question

**Asepsis and antisepsis**

1. **Chain of infection spread.** Infection: sources, exit gate, transmission routes, entrance gate, patient.
2. **Factors influencing the spread of infection.** Age, local and general immunity, chronic diseases, tissue injury, disturbances of circulation, invasive procedures, medicines (immunosuppressors, cytostatics, hormones, antibiotics), neglecting hygiene requirements, sanitary state.


4. **Standard precautions:** hand washing, gloves, protective eye and/or facial wear, prevention of sharps injuries, correct preparation of nursing devices and instruments, following hygiene requirements, correct handling of medical waste.


6. **Medical asepsis: definition, basic principles.** Hand washing, gloves, barriers for infection prevention, disinfection, sterilisation, prevention of sharps injuries, and disposal of medical waste.


9. **Medical gloves: types, indications for use.** Types: sterile surgical, single-use examination, utility gloves.

10. **Preventive measures against infection for the health care staff and the patients.** Masks, caps, protective eye and/or facial wear, clothing, footwear. Indications, directions for use.

11. **Cleaning of the surgical department.** Conception of “cleaning” and “decontamination”. Wound dressing rooms: purpose, equipment requirements, specificity of cleaning.

12. **Methods of infection control.** Conceptions of decontamination, disinfection and sterilisation. Physical, chemical, mechanical and biological methods of infection control.

13. **Disinfection: definition, levels and methods.** High, intermediate and low level disinfection. Methods of disinfection: physical, chemical.


15. **Sterilization: definition, methods, ways.**

16. **Autoclaving, gaseous chemical sterilization, irradiation, chemical sterilization, boiling: characterisation, application, regimens.**

17. **Stages of disinfection and sterilization.** Decontamination, cleaning, sterilization or high level disinfection, storage. Ways of decontamination and cleaning. Contamination control. Characterization of stages according to the applied method.

18. **Spaulding’s classification.** Classification of instruments and nursing devices based on necessary cleanliness and sterility.


20. **Wound dressing material, sterilization.** Requirements for wound dressing material. Preparation for sterilization, features of packaging. Single use wound dressing material.


22. **Disposable medical items: advantages and drawbacks.** Sterilization of disposable medical items.


25. Medical waste: types, hazards, storage and handling. Potential hazards to health care workers, patients, visitors, community. Directions for sorting, storage, decontamination and disposal.

26. Surgical asepsis: definition, conception of “sterile” and “aseptic” technique.

27. Main principles of surgical asepsis.


29. Staff of the operating block, functions, outfit, work regulations.

30. Cleaning of the operating theater. Air quality control in the operating theater. Ventilation and heating systems. Outfit requirements for the staff, dressing features of the staff. Work and behavior regulations.

31. Surgical hand disinfection procedures (surgical hand washing). Hygiene requirements for the surgeon’s and scrub nurse’s hands. Ways of surgical hand scrub, equipment, antiseptics, technique.


34. Masks, caps, footwear, outfit, protective eye wear and face shields used in the operating theater. Requirements, properties, rules of use. Impervious gowns. Pinafore. Sterility signs and borders of the surgical attire. Rules of removal of the surgical attire. Footwear cleaning after an operation.

35. Preparation and isolation of the operative field. Preparation of the operative field before arrival in the operative theater, in the operative theatre, surgical wound asepsis after an operation. Hair removal, antisepsis, technique. Drapig items, features. Operative field protectors. Sterility signs and borders of the draped area.

36. Asepsis during operation. Movement of staff in the operating theatre, talking, storage of unused sterile items, cleaning of used instruments, size of the surgical wound, tissues and organs sparing surgical technique, hemostasis, nonsterile and sterile stage of the operation, disposal of medical waste.


38. Types and methods of antisepsis.


42. Currently used antiseptic agents. Skin, wound antiseptics, hand antiseptics, antiseptics for surgical scrubbing and operative field preparation.

Nutrition of a patient


44. Calculation of energy requirements. Calculation according to the ideal body weight, Harris-Benedict equation, basic energy requirements, real energy consumption: stress, activity, temperature factors. Average energy requirements of healthy, operated person and the surgical patient. Protein needs, needs of micro- and macro elements.


Examination of a patient


52. Laboratory tests. Morphological, biochemical, bacteriological, and immunological tests. Bacteriological tests of blood and fluids from the abdominal cavity.


54. Radiological investigation methods. X-rays, CT, MRI, radioisotope, ultrasound.

55. Examination of vascular surgery patient.

56. Diagnosis of diseases of the colon.

57. Diagnosis of diseases of the rectum. Function tests of anal sphincters and rectum.

Operation


62. Surgical tissue dissection. Measures, ways and principles of the surgical tissue dissection.

63. Tissue restoration. Measures, ways and principles of the surgical tissue restoration.


70. Postoperative functional disorders of the gastrointestinal tract, prevention and management. Single or continuous gastric tube decompression, activation of peristalsis, activation of a patient.


75. Postoperative fever, causes, prevention. Infectious and non-infectious fever. Spread of purulent infection; malignant hyperthermia; transfusion reactions. Fever immediately after an operation, after 36 hours, after 3 days. Less common causes of fever.


Wound

77. Wound: signs, types. Definition. Symptoms. Types according to contamination, extent of organ injury, depth of wound channel.

78. Classification of wounds. Anamnesis of wound. Classification according to the origin, nature of injury and specificity.


83. Wound healing: characterization of phases, ways of wound healing, factors influencing wound healing.


Tissue vascularization disturbances and tissue necroses


General surgery practical skills

1. Surgical hand antisepsis.
2. Wearing the gown and gloving procedure.
3. Palpation of peripheral arteries.
4. Removal of stitches from a wound.
5. Dressing an aseptic wound.
6. Dressing an infected wound.
7. Removal of stitches.
8. Insertion of the gastric tube.
9. Insertion of the urinary catheter.
10. Interviewing the patient.
11. Assessment of the abdominal inspection findings.
12. Assessment of the abdominal auscultation findings.
13. Assessment of the abdominal percussion findings.
14. Light abdominal palpation.
16. Palpation of the liver, spleen, cecum, the sigmoid colon.
17. Assessment of the peritoneal irritation signs.
18. Detection of fluid accumulation (ascites) in the peritoneal cavity.
19. Technique and assessment of the digital examination of the rectum.
21. Examination of the deep leg veins.
22. Examination of the superficial leg veins.
23. Evaluation of the peripheral arterial blood flow.
24. Palpation of the peripheral lymph nodes.
25. Assessment of the superficial abscess signs.