

MINISTRY OF HEALTH OF UKRAINE
POLTAVA STATE MEDICAL UNIVERSITY
Department general surgery

METHODICAL INSTRUCTIONS
FOR INDEPENDENT WORK OF THE STUDENT
IN TIME FOR PREPARATION TO THE PRACTICAL STUDY
(auditorium work)

Study discipline	Care of the patients (practice)
<i>Module №2</i>	CARE FOR SURGICAL PATIENTS
Lesson theme №2	<p>Organization of work in the clean dressing room. Desmurgy, bandaging material. Typical bandages. Bandages on a head, neck, thorax. A care is of patients, operated on a head, neck, thorax A care of patients, operated on the organs of abdominal region, perineum, extremities. Bandages are on a stomach, perineum, extremities. A care is of patients with fractures. Gipseous technique.</p>
Course	II
Faculty	International Faculty

Poltava

<i>Module №2</i>	CARE FOR SURGICAL PATIENTS
Lesson theme №2	Organization of the work in bandaging room . Desmurgy, bandaging material. Typical bandage. Bandage on the head, neck and chest. Care of patients, operated on the head, neck, thorax

1. Actuality of theme:

Familiarize students with the structure, construction, extent of surgical care in a clean and purulent bandaging room of surgical departments, learning the habits of care in dressing promotes the development of a set of preventive standards of infection of surgical wounds. Injuries of the chest are classified as difficult injuries, which are often accompanied by deaths. They have a great variety of clinical picture, usually providing extreme care, sometimes in extreme conditions. Are extremely common in both peacetime and wartime. Therefore, knowledge of the general principles of diagnosis and the provision of care to patients with injuries to the chest are need physician of any specialty, especially surgeons, and that makes the need to study this subject is extremely important.

2. Educational aims:

- Analyze the organization of the surgical hospital;
- Explain the place and the challenges facing the functional unit of the surgical unit - clean dressing;
- Ask students to read the the construction, equipment, sanitary requirements to clean bandaging room and organization of their work;
- Classify antiseptics in groups, sub-groups;
- Analyze the risks of complications following standardization of aseptic and antiseptic when working in a clean dressing;
- Make a plan of daily bandaging depending on the amount of surgery and the severity of post-operative patients.
- Master the technique of applying the typical dressings in injuries of the chest, neck and head.

3. Basic knowledge, skills necessary for studying the topic (inter-disciplinary integration)

The names of the preceding disciplines	Acquired skills
1. Latin	Be skilled in writing prescriptions.
2. Microbiology	Apply the necessary preparation, based on the structural features of viruses, bacteria and protozoa. Determine resistance to temperature vegetative flora radiant energy, chemicals. Possess elements of bacteriology. Control of sterility.
3. Biochemistry	Metabolism. Able to interpret the blood, urine, the level of blood and urine tests.
4. Pharmacology	Define the concept of antiseptic and disinfectant. Know dose antiseptics, be able to write prescriptions. Compare the pharmacological effect of the necessary antiseptic preparations.

The student must have an idea:

- the general and local reactions to surgery
- the non-specific resistance of the organism
- the types of drainage of the abdominal cavity and subcutaneous tissue
- prepare a set of tools and bandages for dressing
- provide first aid in the collapse, shock, fainting, bleeding

- disinfect the used tool after tying different groups of patients
- how to implement the current, daily, general sanitizing bandaging

The student should know:

- basics of aseptic and antiseptic;
- possible general and local complications of surgery;
- course of wound process;
- different types of bandages, which are used in clean surgery;
- construction and operation modes of bandaging rooms of the clean and contaminated surgery;
- provision of the bandaging room
- the anatomical and physiological features of the structure of the skin
- features transporting patients to the bandaging room
- sanitary standards of clean bandaging room, purulent bandaging room
- the volume of surgical interventions in the bandaging
- classification of antiseptics
- the types of drainage of the abdominal cavity and subcutaneous tissue
- basics desmurgy. Types and classification of different types of bandages

The student should be able to:

- transporting patients to the bandaging room;
- lay the patient on the bandaging table area according perform ligation
- treat hands to perform ligation
- be able to wear a sterile gown
- prepare a kit for washing drainage
- prepare a set for bandaging

The mastery of the practical skills by students:

- develop lighting field dressing
- to master methods of transporting patients in the bandaging room (beds, wheelchairs, wheelchair)
- perform ligation
- flush drains
- methods for bandaging injuries of different parts of the body

4. Task for self-study in preparation for the lesson.

4.1. The list of basic terms, parameters, characteristics, which the student must learn in preparation for the class:

Term	Definition
Aseptic	Complex of means and organizational methods to prevent ingress of microorganisms into the wound.
Antiseptic	Complex of means and organizational methods aimed at fighting existing infection in the wound.
Bandaging room	The room, that has a Health Standards floors and walls covered with tiles, tables covered with oil paints, suitable for washing and sanitizing.
Bandage material	Manufacture of absorbent cloth different products that are used in surgical practice for drying wounds, bleeding, removal of the wound field for applying and strengthening bandage.
Antiseptic materials	Chemical - halogens -1 FIC oxidants - H ₂ O ₂ , KMnO ₄ , dyes - methylene blue, alcohols - 70 °, 96 ° heavy metals - alkali, acid

4.2. Theoretical questions for the class:

1. To enumerate functional areas of the surgical department
2. Building equipment in bandaging room of clean surgical department
3. The volume of surgical care in bandaging room
4. Features of the structure of the skin and subcutaneous tissue
5. Methods of transporting patients

6. Sanitary standards bandaging cabinet
7. Surgical instruments bandaging cabinet
8. Classification of bandages:
 - Glue
 - Bandage
 - Special
 - Emplastic
9. Types of drains:
 - Tubular
 - Glove
 - Combined
 - «cigar»
10. Count the dishes, which are soaked material and tools used during the bandaging
11. Count the basic rules of bandaging

4.3. Practical activities (tasks) that are used in class:

1. Transporting patients to the bandaging room;
2. Lay sick at the bandaging table, according to the zone perform ligation
3. Process hands to perform ligation
4. To be able to wear a sterile gown
5. Prepare a set of wash drains
6. Prepare a set for bandaging
7. Adjust the lighting of the bandaging field
8. To master methods of transporting patients in the bandaging room (beds, wheelchairs, wheelchair)
9. perform ligation
10. Flush drains
11. Imposition of typical bandages at damages different parts of the human body

5. The content of the topic.

Bandaging room - is the functional unit in the structure of the surgical department.

Premise - a room that is on sanitary standards should have a floor that is covered with tiles, ceiling, which is covered with whitewash oil for cleaning and sanitizing.

Methods of transporting patients - their own, on a wheelchair, wheelchair, stretcher.

Standard equipment working bandaging cabinet surgical department: a table, side table, a table for sterile coverings, table for a bix, a medical closet for medical means, germicidal lamps, shadowless lamp, bandaging table, chair-stand cupboards for disinfecting solutions, shelves for masks, caps, shoe covers, tableware disinfection of used equipment; tableware for used trays, tableware for washing liquid processing equipment; tableware for used disinfecting bandages; tableware for disinfection of bix, tableware disinfection of walls, tableware for disinfecting work surfaces, utensils disinfection table bandaging, dressing box for general cleaning, bix for tools, materials for Bix, Bix for drainage; Bix for bacteriological monitoring tools.

The volume of surgical procedures that are performed in the bandaging: changing bandages, removal of stitches, removal of drainage, flushing drainage, wound revision, the imposition of secondary stitches, establishing the subclavian catheter, puncture hematoma, puncture of pleural cavities, holding novocaine blockades.

In the bandaging - initial debridement, the use in the various phases of wound process antiseptics, ointment bandages, prevention of bedsores in long-lying patients.

Covering of table in a sterile bandaging room

1. Make sure that the front desk nurse covering sterile dressing thoroughly cleaned.
2. Perform air disinfection with germicidal lamps for C min.
3. Treat the surface of the table twice with 0.2% solution hlorantoina.

4. Wear a sterile mask, make the surgical treatment of hands, put on a sterile gown, sterile rubber gloves to handle the 70 ° ethanol

5. Suggest nurse to open a sterile box with sterile white

6. Check the quality control of sterilization by the indicator.

7. Wash sterile sheet, expand it so that there is 4 layer, and cover their table. If the table is large, then use 4 sheets with those calculations, that they not only cover the entire table, but hanging over the edges of 30-40 cm

8. Suggest nurse to open slit with sterile equipment.

9. Arrange tools in a specific order in 3-4 rows. In the first place the number of tools that are often used in the second series of the tools that are necessary to for the ligation in the third row - tools that are used less. In the left corner, leave scalpels, scissors, stitch material. After decomposition tools cover the table with sterile sheets in two layers, with the edges of the upper layers reaching down to 5-7 cm above the bottom.

Bandages on the chest. Use a wide bandage. Feature bandages of this part of the body are an easy slide into them as well as possible to limit the respiratory movements, which are very desirable in the elderly. The upper half of the chest is applied mainly in the form of a figure eight bandage with a cross on the back or in the sternum area - depending on the location of the wound. Complement their circular tours around the breast.

Bandages for the lower half of chest can be recommended by the upward spiral bandage. For good footing before the application of the dressing over the deltoid muscle on both sides throw over two strips of bandage, which cross at the back.

Bandages on the hands and shoulders. Bandage on the finger can be made for the type-turning, spiral and herringbone. To do this, use bandages width of 3-5 cm.

Bandage, which turns used when necessary to completely close the end of the distal phalanx. Bandaging begins with palmar surface that bandage along the main phalanx of the finger to the nail, round the end of the finger, transfer bandage on the back surface, leading to the main phalanx where bandage bend creeping course argue to the end finger, and then - in the opposite direction of the spiral tours to the main phalanx, where fixed bandage.

Spiral bandage starts from fixing circular tours in the area of the wrist. After this, the bandage on the back of the hand led to the nail phalanx, and then - spiral moves to the main phalanx and again through the back of the hand back to the wrist, where fix bandage. Herringbone bandage most comfortable to close sections of the metatarsophalangeal joints, mainly the I finger. It usually start out strengthening on the wrist, then bandage diagonally on the back of the hand is transferred to the thumb, after a few rounds with the return in the form of a figure eight wrist bandage there and fix. Forearm bandage on a simple technique of spiral bands or inflections. Both bands perform better as a bottom-up, starting from the wrist joint. Plot elbow bandage with snail bandages - such that converges or diverges. Impose it in saline (average) position of the joint. In the first case, the first round will be held under the locking elbow joint, on through the cubital fossa bandage transferred to the shoulder joint of the above, encircle it behind. Gradually moves in a figure eight, which are identical to the olecranon, cover the entire joint, the middle of which the lock is applied last round. In the case of divergent bandage is applied over the first round of the olecranon, and then turns in a figure eight diverge from the middle, gradually covering the whole joint. Crosse do on the front surface of the limb.

To cover areas of shoulder and armpit use herringbone bandage on the shoulder joint.

Rising herringbone bandage start with locking loop on the shoulder near the armpit. Then transferred bandage under the armpit to the external side of shoulder joint, bend around it and go back to the armpit of the opposite side, and then - on the front of the the chest on the front surface of the patient's arm around him to armpit. Coil is formed in a figure eight with a cross on the front of the shoulder.

Downward herringbone bandage begins with a circular locking loop around your chest at the armpits, then transferred to the armpits bandage healthy side diagonally across the chest on the front surface of the shoulder joint, bend around it, carried out under the armpit and laterally up to the transition to the back

and then carried through the armpit of the healthy side. Thus, the coils are formed in a figure eight, which run from the behind of the shoulder to the shoulder crossroads on the front of the shoulder. Bandage finish fixing coil in the upper third of the shoulder. Dezo bandage rather complicated. Use it to fix the upper limb to the trunk and hanging mainly fractures clavicle or humerus. Usually it is applied at the time of first aid. Before bandaging under armpit put cotton-gauze roller, which prevents displacement of the clavicle or shoulder debris. Hand pressed to the chest and bent at the elbow at 90°. The first round of the circular hold from behind a healthy armpit across the chest, avoiding the damaged hand and pressing it to the chest. Then bandage is on the back, turning to armpit healthy side, getting out of it and obliquely across the chest and goes to the top of the shoulder. After that, down the back of the shoulder, forming a loop to maintain the forearm, and the front surface rises to the area behind the shoulder affected arm. Similar tours are repeated, gradually forming a bandage. Healthy hand remains free while.

Velpeau bandage is little different from the previous one. Placed under the armpit pad. The damaged arm is positioned so that the palm was on his shoulder healthy hand. The first round is circular - around the chest, the second - presses the injured arm to the chest. Then bandage performed under good hand on the back, diagonally to the opposite (the patient) shoulder, bend at the top and are on the front surface down to the elbow sore hand, cover it a little above the elbow and the armpit hold good hand. The edge of the elbow is still free. Due to insufficient physiological position of the hand this kind of bandage for no longer than a week.

6.1. The tasks for self-control.

Questions:

1. How to take care of patients in a clean bandaging room?
2. What sanitation requirements for the bandaging room?
3. How to organize the work in the bandaging room?
4. What types of bandaging materials and its properties do you know?
5. Which, for the type bandage you know?
6. What are the rules of bandaging you know?
7. What features of care of the patients that underwent surgery on his head, neck, and chest?
8. How to impose a bandage on the head, neck, and chest?

Task:

Impose:

- Bandage Dezo, Velpeau.
- occlusive bandage
- A headband ("cap", cap Hippocrates)
- Bandage at brush wound.

6.2. Situational tasks:

Task 1. Patient L., 70 years, 8 hours ago underwent cholecystectomy for acute gangrenous cholecystitis, local peritonitis. How to transport it in the bandaging room.

- A. Self
- B. Wheelchair access
- S. Stretcher
- D. access
- E. independently by nurses

Task 2. The waste tools are disinfected in:

- A 70° alcohol solution
- B. 0.2% chlorantoinine
- SS% solution of iodine
- D. In pervomure
- E. 90° alcohol solution

Task 3. Disinfecting surfaces bandaging table holds:

- A. 70 ° alcohol solution
- B. 0.2% hlorantoine
- SS% solution of iodine
- D. In pervomure
- E. 90 ° alcohol solution

Task 4. Decontamination of air in bandaging room is germicidal lamp for:

- A. 20 minutes
- B. 10 minutes
- C. 60 minutes
- D. 45 minutes
- E. 90 minutes

Task 5. Disinfecting bandaging material with blood are:

- A. Solution of alcohol 70 °
- B. Hlorantoini 0.2% for 1 h and utilized
- C. S% solution of iodine
- D. In pervomure
- E. 90 ° alcohol solution

Task 6. Patient A., 24 years, underwent surgery three days ago for acute phlegmonous appendicitis, body temperature - 36,8 ° C. What type of transportation to the bandaging room:

- A. Self
- B. Wheelchair access
- S. Stretcher
- D. Access
- E. Independently with nurses help

Task 7. Patient L., 60 years, two days ago, operated for purulent pancreatic necrosis. What amount of manipulation must be performed in bandaging?

- A. Remove drains
- B. Remove the stitches
- C. Process and post-operative wound with an antiseptic solution
- D. Probe to revise the wound
- E. Wash drains dekasanom, wound care antiseptic

Task 8. Patient S, 32 tears, underwent surgery 7 days ago with acute phlegmonous appendicitis, X - 36,5 ° C, the abdomen is soft not painful stools, urination - normal, postoperative wound clean, heals by first intention, drainage removed three days ago, how much care in bandaging room?

- A. Revision wound bulavchatym probe
- B. Revision counterpuncture
- C. Removal of stitches in one
- D. Antiseptic treatment of wounds, removing stitches in one, replace bandage
- E. Treatment of wounds with antiseptic, bandages replacement

Task 9. Patient R., 25, underwent surgery 7 days ago about penetrating stab wounds abdominal cavities with damage to the packing of the large intestine, in a serious condition, the body temperature - 39,7 ° C, postoperative wound hyperemic, the local temperature increased, the bandage soaked slightly hemorrhagic content odorless. The volume of medical care?

- A. Replace bandages
- B. Revision of wound clavate probe
- C. Removal of stitches in one

D. Removing one seam inspection wounds, washing wounds, establishing drainage of surgical wounds.

E. Treatment of postoperative wound antiseptic, change bandages

Task 10. Patient, 18 years old, five days ago operated on for perforated ulcers. Postoperative wound clean, heals by first intention. Subhepatic space for drainage discharge not. What is the volume of surgical procedures should be performed in the bandaging room?

A. Removal of drainage, replacement of bandages

B. Removing of all seams

C. Removal of drainage, removal of stitches in one

D. replacement bandages

E. In the bandaging to remove the drainage of the abdominal cavities must be present operating surgeon.

Target 11. A patient 35 years old was injured when falling on the extracted right leg. Diagnosis: a dislocated shoulder. What you need to apply a bandage to the right upper limb after the reduction of dislocation?

A. Herringbone bandaging on the joint

B. The Dezo's bandage

C. The cast on the shoulder joint

D. Fixation of the upper limb to the chest

6.3. Tests for self-control (basic knowledge):

1. To the doctor patient with wound suppuration, which is located on the back of the neck. What we have to impose a bandage?

1 circular

2 spiky

3 cap

4 spiral

5 cruciate

2. The patient has postoperative wound of the epigastral area. What kind of bandage used to prevent wound infection?

1 roller-bandage

2 gauze

3 glue

4 whole

5 circular

3. The patient has extensive biting wounds of the right forearm. What is the most comfortable bandage?

1 glue

2 emplastic

3 spiral with a bend roller-bandage

4 circular

5 circular plaster

4. During a brisk walk in the patient sprained foot. Overlapping bandages which can ease her condition?

1 back on the foot

2 in the form of a figure eight

3 herringbone

4 creeping

5 tortoise

5. The patient holds the wound of the upper third of the left thigh, in a large swivel. What should he impose a bandage?

1 T-shaped

2 in the form of a figure eight

3 as a sling

4 herringbone

5 tortoise

6. The boy fell on his face to the ground and once there was bleeding from the nose. What kind of bandage to be imposed for the provision of first aid?

no one

2 Pressure

3 as a sling

4 special

5 emplastic

7. The victim have the five wounds of the scalp. What bandage to put?

1 scarf

2 emplastic

3 glue

4 bridle

5 cap

8. The victim fractured jaw. What kind of bandage is necessary to impose the provision of emergency care?

1 cap

2 as a sling

3 cap Hippocrates

4 bridle

5 scarf

9. In the patient revealed purulent mastitis of the right breast. What kind of bandage is best used?

1 Dezo's

2 spiral on the chest

3 circular to the chest

4 supporting the mammary gland

5 pressing on the breast

10. The patient with a dislocated shoulder should be given first aid. What he needs to put bandage?

1 roller-bandage

2 scarf

3 gypsum

4 herringbone on the shoulder

5 special

11. The most serious mistake in applied bandage to the neck area is:

1 fairly free

2 is not fixed

3 thin

4 Use a wide bandage

5 overlaid with a lot of tours

12. What bandage fixed dressing on the cult limb?

1 circular

2 spiky

3 return

4 snail

5 spiral

13. What bandage is using to the patella area?

1 spiral

- 2 turtle
 - 3 creeping
 - 4 Phillips
 - 5 circular
14. Bandage material on the chest is fixing by the bandage:
- 1 spiky
 - 2 turtle
 - 3 Velpeau
 - 4 circular
 - 5 spiral
15. Dressings must meet all the requirements except:
- 1 hygroscopticity
 - 2 elastic
 - 3 innings sterilized without loss of quality
 - 4 inhibitory action on tissue
 - 5 capillary

6.4. Tests and tasks to test the initial level of knowledge

1. A woman with a 10 year old boy to address to you in connection with the fact that the child concerned about pain in the right elbow. The boy is 6 hours so, in outpatient clinics, the infected abrasion elbow after his treatment was a bandage. On examination determined light cyanosis of the right forearm and hand, blasting saphenous veins, even when lifting his hands. What happened? How to help a child?
2. At the reception man came 40 years who are concerned scabies of the left forearm. Three days ago, got a thermal burn I-II degree. Was applied to the forearm aseptic bandage. On examination, found that the bandage on the back surface of the middle third of the forearm drenched yellow-gray discharge. How to remove the bandage?
3. At the emergency room delivered male 34 years with cutting the palmar surface of the wound the middle third of the right forearm. From the words of the victim, the wound is 1.5 cm with a knife in the street caused unknown. Conducted toilet wounds imposed primary joints. Nurse bandages the wound consolidated bandage, tying the ends of the bandage over the wound site. After that, she introduced him (the patient) subcutaneously 0.5 ml of tetanus toxoid and tetanus toxoid 3000 MO. What a mistake is made in the technique of bandaging?
4. In patient 68, the inner surface of the lower third of the right leg a trophic ulcer measuring 1.5 x 2 cm with necrotic down, flushing of the skin and soreness around. Ulcers treated with an antiseptic solution, dried, covered with cloth and ointment "Iruksol." What you apply a bandage connected it?
5. Patients due to varicose hypodermic veins under subcompensation held venectomy great saphenous vein in the right thigh and calf. Wound are sewed, treated with 1% solution yodonata, closed napkins. What kind of bandage to be imposed on the lower limb to seal the bandages?
6. Patient K., 20 years due to an injury of the cervical spine and spinal cord injury, to his carrying out of urgent decompression laminectomy. The wound in the back of the neck protection, closed gauze. What you apply a bandage to the consolidation of bandages?
7. You - the emergency doctor. You are called to a patient with a penetrating wound to the chest on the right. The casualty heavy. He instinctively closes the wound by hand, leaning to the right side. On

examination, the wound is marked sucked air through it at the time of inhalation and exhalation air with the noise coming out of it. Your actions?

8. Patient S., 28 years old, held the disclosure of purulent elbow bursitis. Bag stitched with an antiseptic solution, drained turundas wetted hypertonic solution of sodium chloride, covered with gauze. How do you fix bandages?

9. Patient S., 36 years old, suffered during the road adventures. Available cut, thick bloody wound in the right temporal region and extensive ruble lacerated wound on the outer surface of the right shoulder joint. No signs of a shoulder fracture. What bandages have to be imposed to the patient in the provision of first aid?

10. You accidentally witness an accident: the child's right hand burned with boiling water, screaming in pain. On the back of the fingers and wrist appeared bubbles. The home kit is Furacelin solution (1:5000) and packaged sterile bandage. In order to provide first-aid bandage which is necessary to impose the victim?

11. In rural district hospital delivered 52-year-old farm worker with a bruised- chopped wound of the right parietal region, which covers the victim himself with a handkerchief. What volume of medical care should be given to the patient?

12. As district pediatrician you examined the orphanage, recommended to put it in the right ear hot compress. The child's mother, referring to the inability to perform this procedure, asked you to help. How to put a hot compress on the ear, and with what bandages to fix it?

13. To the doctor rural outpatient boy turned 11 years old, which is close to an hour before the game of hockey was slashing to the site of the left eye. Was immediately given first aid as an overlay on the eye of snow. Visually determined congestion of the eyeball, corneal erosion. On palpation - an eye sore. Diagnosed as blunt trauma of the left eye. What volume of the first medical aid should be provided to the child and how to fix bandages?

14. A man aged 47, fell from the bike. Complains of pain in the right forearm. Visually observed swelling, deformity, pain and crepitus in the projection of the middle third of the right clavicle. Pulse in the right radial artery is satisfactory. How do you make a diagnosis, and what immovable bandage, apply?

15. After reduction of traumatic dislocation of the right shoulder of the victim to immobilize the right upper extremity by an average of 1 to 1.5 weeks. What immovable bandage you impose?

7. Literature:

General:

1. General Surgery. Textbook for students of higher medical educational establishments / [Lihonenko O.V., Chorna I.O. , Zubaha A.B., Khimich S.D et all.]; Edited by Prof. S.D. Khimich, Prof. M.D. Zheliba Kyiv AUS Medicine Publishing, 2019.- 608 p.
2. General Surgery. Textbook for students of higher medical educational establishments / [Lihonenko O.V., Chorna I.O. Khimich S.D et all.]; Edited by Prof. Ja.S.Bereznickij,M.P.Zacharash, M.P.Mishalov,. Vinnica: New book, 2019-344c
3. General Surgery / For Ed. S.P.Zhuchenko, M.D.Zheliby, S.D.Himicha - Kiev.: Health, 1999 - P. 81-101, 395.
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5. Gostishchev V.K. General Surgery: Textbook. - 3rd ed., Rev. and add. - Moscow: GEOTAR-MED, 2004. - Pp. 26-31, 53-67.
6. "General surgery", S. Petrov - Moscow, "GEOTAR" 2005 - P. 17-34.
7. Surgery Vol.1. For Ed Bereznitsky Y.S. - Dnepropetrovsk, PBA "Dnepr-VAL». - 2006. - P.78-101.

Additional:

1. Lecture notes.
2. Timofeev, N.S., N. Timofeev Aseptic and antiseptic. - 2nd ed., Rev. and add. - L: Medicine, 1989. - S. 3-17, 52-65, 202-203.
3. Antiseptics in the prevention and treatment of infections / For Ed. G.K. Pyro - Kiev.: Health, 1997. - S. 3-90.
4. "General Surgery", ed. S.P.Zhuchenka, M.D. Zhelibi, S.D.Himicha - Kiev, "Healthy" I ", 1999 p.15-19

The distribution points that awarded to students:

At mastering topic № 2 substantial module №1 for the learning activities of students rated a 4-point (traditional) scale, which is then converted into points as follows:

<i>Rating</i>	<i>Points</i>
“5” (excellent)	5
“4” (well)	4
“3” (satisfactorily)	3
“2” (unsatisfactorily)	0

Guidelines prepared
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