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Federal State Budgetary Educational Institution
higher education "North Ossetian State Medical Academy" of the Ministry of Health of the Russian Federation
(FGBOU VO SOGMA of the Ministry of Health of Russia)

Department of Internal Diseases №1

METHODOLOGICAL MATERIALS

practice Practice for obtaining professional skills and experience of professional activity in the positions of nursing staff (assistant to the procedural nurse) of the main professional educational program of higher education - specialist programs in the specialty 31.05.01 General Medicine, approved on 30.03.2022

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Methodological materials are intended for teaching 3rd year students (semester 6) of the medical faculty of the FGBOU VO SOGMA of the Ministry of Health of Russia in clinical (industrial) practice "Practice for obtaining professional skills and experience in professional activities in the positions of nursing staff (assistant to procedural nurse)"

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Topic No. one

Organization of work of medical institutions.

A. Questions of medical ethics and deontology.
B. Reception and registration of patients in the emergency room.
B. Sanitary and epidemiologicalreception mode
D. Sanitary and hygienic treatment of incoming patients.

The student needs to be aware of:

1. Medical ethics and deontology.
2. Reception structure
3. Rules for the admission and hospitalization of patients in a medical institution
4. Arrangement and equipment of the reception area
5. Sanitary and epidemiological regime of the admission department
6. Practical skills in conducting a hygienic bath.

The student must be able to:

1. Methods of communication with patients, observing the principles of medical ethics and deontology.
2. Rules for filling out the main documentation of the admission department.
3. The technique of filling out an emergency notice for patients with an infectious disease, food poisoning, pediculosis.
4. Technique for sanitizing the reception area.
5. Rules for the hygienic treatment of the incoming patient.
6. Technique for treating a patient with pediculosis.

medical ethics(Latin ethika - the study of morality, morality) - a set of ethical norms and principles of behavior of a medical worker in the performance of his professional duties. The term “deontology” (Greek deon, deontos – duty, due, appropriate; logos – teaching) was widely used in Russian literature of the last century. Medical deontology was often identified with medical ethics, and this concept was also interpreted as the practical implementation of the theoretical content of medical ethics. Usually, medical deontology was understood as the doctrine of the principles of behavior of medical workers that ensure an increase in the effectiveness of treatment and the elimination of the harmful consequences of incomplete medical knowledge and incorrect actions. Currently,

Speaking of medical deontology, we mean one of the areas of biomedical ethics that studies and determines the solution to various problems of interpersonal relationships, such as:

1) Medical worker - sick;
2) Medical worker - relatives of the patient;
3) A medical worker is a medical worker.

The main issues of medical deontology are: the relationship between the doctor and the patient, iatrogenics (or illnesses associated with healing), the ethics of managing severe and hopeless patients, including euthanasia, healing in the age of the scientific and technological revolution, medical secrecy, self-perfection stvovanie and collegiality of doctors. Professional medical ethics is a specific manifestation of the general ethics of a person in the special conditions of medical activity, sensitivity of character, attention, knowledge, education, culture, collegiality. Any worker in the medical field should have such qualities as compassion, kindness, sensitivity and responsiveness, caring and attentive attitude towards the patient. Of particular importance in the medical profession are such universal norms of communication as respect and attention to the words of the interlocutor, demonstration of interest in the content of the conversation and the opinion of the patient, the correct and accessible construction of speech when communicating with patients. The external neat appearance of the medical staff is also important: a clean gown and cap, neat replacement shoes, well-groomed hands with short nails. It must always be remembered that it is unacceptable for a physician to use perfumes and cosmetics without measure. Strong and pungent odors can cause undesirable reactions: from nervous irritation of the patient and various manifestations of allergies in him to an acute attack of bronchial asthma. well-groomed hands with short-cut nails. It must always be remembered that it is unacceptable for a physician to use perfumes and cosmetics without measure. Strong and pungent odors can cause undesirable reactions: from nervous irritation

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Appearance of a nurse.

The deontological issues of patient care include the need to maintain medical secrecy. Medical workers do not have the right to disclose information about the patient of a deeply personal, intimate nature. But this requirement does not apply to situations that pose a danger to other people (infectious, venereal diseases, poisoning, etc.). In these cases, health workers are obliged to immediately inform the relevant organizations about the information received.

Compliance with moral and ethical standards by a medical worker provides not only for the performance of their duties, but also for bearing responsibility for evasion or unprofessional performance of their duties.

Reception department is a part of the hospital intended for registration, admission, examination, sanitary and hygienic treatment of patients arriving for treatment and emergency care.

Приёмный покой больница Белинсон Израиль

Приёмный покой ЦРБ. г. Мытищи.

The reception department consists of a waiting room, a reception desk, examination rooms (one or more), a sanitary inspection room, a treatment room, a dressing room, and toilets. Large hospitals have a small operating room, a trauma room, an X-ray room, and a laboratory. At the reception

there should also be an isolation room for the placement of patients suspected of having an infectious disease.

Reception functions include:

1. renderingemergency care and anti-shock therapy;
2. patient registration;
3. primarydiagnostics;
4. sorting and screening of infectious and non-core patients;
5. taking tests;
6. sanitization (full or partial);
7. organizationtransportation of the patient to the department.

The work of the admission department proceeds in a strict sequence:

1. registration of patients;
2. medical examination;
3. sanitary and hygienic treatment.

The rooms must be placed in the same sequence.

Waiting hallintended for patients who do not need bed rest, for accompanying persons and relatives. There should be a table and a sufficient number of chairs. Information about the working hours of medical departments, hours of conversation with the attending physician, and a list of products allowed for distribution to patients are hung on the walls.

The reception desk is located nearby (the registration of incoming patients and the preparation of the necessary documentation are carried out here) and an information desk (Fig. 1).

Rice. one.Tomsk Regional Clinical Hospital. Emergency room.

In the examination room, the doctor examines the patients, makes a preliminary diagnosis, determines the type of sanitation. Thermometry is also carried out here, and sometimes other studies (for example, electrocardiography). In those cases when the patient is delivered in a serious or unconscious state, they begin to provide assistance without losing time for registration, and only after that they collect the necessary information from the patient himself, relatives or persons accompanying him.

Treatment room, dressing room, small operating roomdesigned to provide emergency assistance.

For sanitary treatment of patients who are admitted to the hospital, there is a sanitary inspection room in the admission department ((bath, shower, dressing room).

The admission department should be provided with the following equipment: stretcher, gurney, linen, clothes for patients.

All medical documentation is drawn up by the nurse of the admission department after examining the patient by a doctor and deciding on the issue of hospitalization of the patient in this medical institution.

1. The nurse registers patients in the "Journal of admission of patients and refusals to hospitalize" (form 001 / y), verifying the passport data and the referral data for hospitalization:

- surname, name, patronymic of the patient
- year of birth
- home address
- where and by whom the patient was delivered (type of hospitalization)
- referring institution's diagnosis

In case of refusal of hospitalization, the reason for the refusal and the measures taken are indicated (outpatient care provided, sent to another hospital).

2. Fills in the passport part "Medical record of an inpatient patient" (form 003 / and refusals y), repeating the entries made in the "Journal of registration of admission of patients and refusals in hospitalization". Also enter information about the place of work and profession, phone number: home or relatives (friends), if the patient is a lonely person. Information about the existing disability and indications for hospitalization (emergency, planned, transfer from another hospital, "gravity") are noted. In case of emergency hospitalization, the time after which

The patient was taken by ambulance.

3. The nurse fills out the passport part and the left side of the "Statistical card of the departed from the hospital" (form 066 / y)
4. Draws up an act on the money, valuables, clothes and personal belongings of patients accepted for storage, filling out a receipt - a sheet of the established order. The accepted documents and valuables of the patient are transferred to the hospital administration and stored there in a safe.
5. After examining the doctor on duty and his records, the nurse completes the registration in the Register of Patient Admissions and Hospitalization Denials (Form 003/y).

   Logging:

- admission doctor's diagnosis
- the name of the department where the patient is referred.

6. Provides first aid to patients, fulfills the appointment of a doctor on duty, if necessary, calls doctors - specialists, laboratory assistants, facilitating their work.

7. Thoroughly examines the hairy parts of the body and head of the patient in order to detect pediculosis, and the skin and mucous membranes - to identify elements of the rash; conducts thermometry, measures blood pressure, noting the results in the medical history.
8. Upon admission of the patient:

- ✓ under the age of 16 without adult relatives;
- ✓ patient in an unconscious state that directly threatens the life of the patient, as well as in the event of his death in the emergency department: The nurse is obliged to his relatives to give a telephone message to his relatives (if the phone number is known), making an entry in "Telephone Journal". In addition to these cases, the telephone message is transmitted to relatives if the patient is transferred from the admission department to another hospital.

In case of a criminal nature of the injury, in case of damage received as a result of an accident, and when teenagers under 16 years old are admitted about accidents, a telephone message is given to the internal affairs bodies (attendant on duty). the nurse gives a telephone message upon admission of an unknown patient, indicating his signs: gender, approximate age, hair color, height, physique; special signs - birthmarks, scars and scars; describes his clothes. Writes down in the "Journal of telephone messages" the content of the message, the date, time of its transmission and by whom the telephone message was received by the police department.

9. Organizes and controlssanitation of patients.
10. Organizes and controls the transportation of patients to departments.
11. Supports the sanitary and epidemiological regime of the emergency department.

Cleaning of corridors and utility rooms is carried out daily at certain hours. In the waiting room, reception, examination room, wipe doors, panels, furniture, handles with a damp cloth, completing the cleaning by washing the floor with a clarified bleach solution. Restrooms are cleaned as needed and well ventilated so that there is no smell. Wash basins, urinals and toilet bowls are washed every day with a 2% soda solution, brown spots are rubbed with acetic acid. The junior nurse should clean the toilet rooms with rubber gloves, after cleaning wash their hands with soap and a disinfectant 2% chloramine solution, which should be in every toilet room.

Sanitary and hygienic treatment of the patient in the admission departmentcarried out in the sanitary checkpoint of the admission department and includes:

1. disinsection - the destruction of harmful insects (lice)
2. hygienic bath, shower or wiping the patient
3. dressing the patient in clean hospital linen and clothes.

The sanitary checkpoint of the admission department usually consists of an examination room, a cloakroom, a bath-shower room and a room where patients dress. It is possible to combine some of these rooms (for example, an observation room and a dressing room). In the examination room, the patient is undressed and prepared for a bath.

There is a couch, a table, chairs, a thermometer on the wall (the air temperature is not lower than 25o C). Fig 2.

Fig.2.Examination of the patient in the emergency room.

Before starting sanitary and hygienic treatment, the junior nurse of the admission department should carefully examine the hairy parts of the patient's body to detect pediculosis (lice) (Fig. 3).

Fig.3.Head treatment for pediculosis

In case of lice, the linen is pre-treated with a disinfectant solution and sent to the disinfection for special. processing. On bags with such clothes there should be an appropriate inscription - “Pediculosis”, and the patient is given special treatment.

Practical skills.

Treatment of a patient with pediculosis.

Purpose: to destroyarthropod insects.

Equipment:protective clothing for honey. personnel-medical gown,kitty, mask,oilcloth apron, rubber gloves. Disinsecticidal solution or shampoo, vinegar (6% solution heated to 30 ° C), alcohol (70%), plastic kerchief and diaper,oilcloth,towel, white paper, fine comb,scissors. Basin for burning hair and matches.Oilcloth bag.

Note:There are several types of disinfectantsandacidic solutions:20% benzine emulsion solutionlbenzoate; Withspecial shampoos (eg."Elko-insect"), special lotions (for example,"Nittifor").

Order of conductprocedures:

1. Prepare for sanitation-hygienic processing: decomposeXaboutdandmequipment and put on a protectivedfood.
2. Lay an oilcloth on a stool (couch), seat the patient on it and cover it withatshoulders with a plastic diaper,
3. PRand the need to cut the hair over the prepared basin.
4. Treat your hair with a disinfectant solutionmtie your headPwith an polyethylene scarf and on top with a towel, leaving it onaboutlimited time (the time of wetting the hair depends on thedand the solution used - see specific instructions).
5. Untie the head and rinse with warm running water, then shampoo.
6. Dry your hair with a towel and treat your hair with warm 6% rastinabout-Rohm ytosour acid.
7. Re-tie your head with a plastic scarf and overattowelaboutsetting for 20 min.
8. Onceinshake your head and rinse with warm running water,dry with a towel.
9. Tilt the patient's head over the white paperandcomb out thoroughlyProws of hair with a fine comb,then againaboutlook at the patient's hair.
10. Burn the cut hair and the paper in the basin.

11. FROMlrevive the patient's clothing and protective clothingdyiqing sister in an oilcloth bag and send it to the disinfectionatyu camera. Treat comb and scissors with 70% alcohol, room-disinfectionecticidal solution.

note: PRthemeapplication of disinfectant solutions of contrapoxataken during pregnancy,in women in childbirth and breastfeeding,children under 5 years of age, as well as with diseases toaboutzhiGtins.

Paboutrowinsondelusion desinsections, if present, contraindicatedandthtousedbdehandnsetoticidal solutionroin.

1. PaboutdthtovitbXiato spendnyu sledtarno-hygienicbwork:unfold the necessary equipment and put on the protectivedeanddat.
2. Lay on tabatRetku (couch) oilcloth,put on heraboutflax and crsslap his shoulders with a plastic diaper, whileeaboutbXaboutdimostand aboutWithtrichino-laboutsy ond ponethenowennsmtatom.
3. Aboutrababoutthief oxaboutsy (not naked skinins!) underaboutheated 6% sol.oromksmustache,mekhanicheskim withPosaboutbom knock outRaya and destroying lice.
4. ovarythead with a plastic scarf and a towel on top,leaving for 20 minutes.
5. Rahelmathlovat andaboutmstbwarmaboutthabouttfull-timethindoh,hand thosemshampoo,you- dry with a towel.
6. tilttb headsata patientanhellwhite paper and carefully combed outbeby yarndIminlosshahundredm grebnem,pertemre-inspectiontb inaboutpatient's lines.
7. Burn sharpanded hair and boomagatintazat.
8. ComplexandaboutdeI am waitingbollegandhaschitnatyu clothesdumeditsinstoaboutthseWithtrsin an oilcloth bag and send to the disinfection chamberRy.

Comb and scissors modadrink alcoholm (70%), placedande-disinfectantsandd-usmsolutionm.

SanitaRnabout-hygienic treatment of patients withaboutbnaratzheniyalhead lice.

1. Aboutmstthoseloh bolbnwow hotherbeforethWithmslohm.

2. Shave the affected hair.

3. Revisitedmytbthoseloh bolbnogabouthotherindoh with uslaboutm.

4. FROMandbe sharpandenns inlwaspsin tahat.

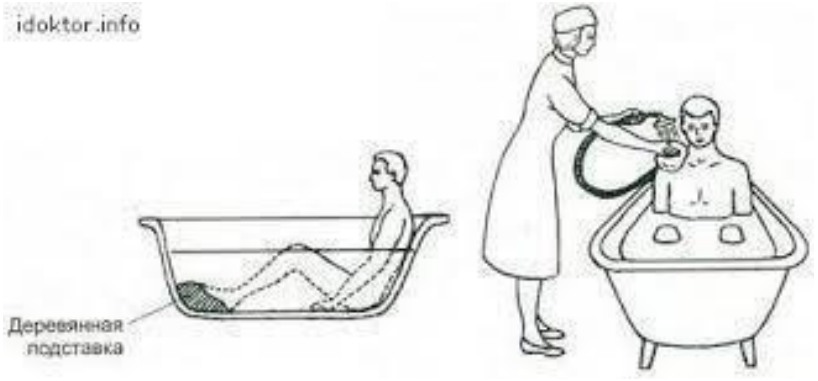
5. Lay down patient clothing and protective clothingdat the nurse'sle- enchayouth meshockandabouttpRavitbindisinfectionatyu camera.

BRandtwooandscabbardandtsy arrabotabecnandRvolume(70%).

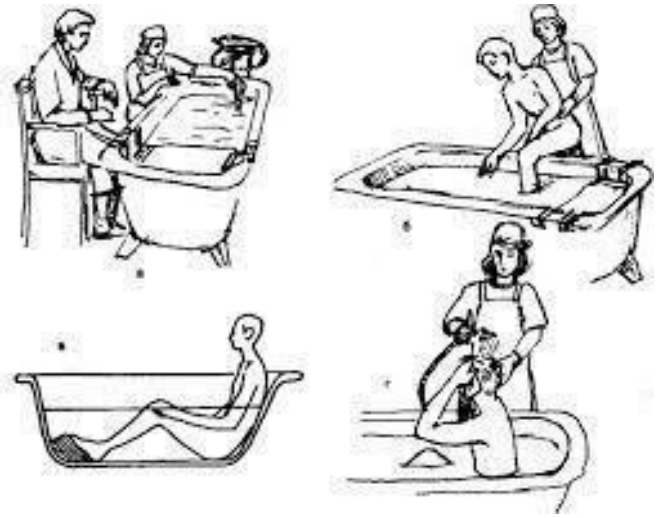
If the patient is diagnosed with an infectious disease, then the linen is placed in a tank with bleach or chloramine for 2 hours and sent to a special laundry.

If the linen is clean, it is put in a bag, and the outer dress is hung on a coat hanger and handed over to the bundle. The list of things is made in duplicate: one of them is put in a bag with clothes, and the other is glued to the medical history and, upon discharge, they receive things for the patient.

Then the patient, accompanied by a nurse, goes to the bathroom. Depending on the nature of the disease and the patient's condition, hygienic treatment can be complete (bath, shower) (Fig. 4, 5) or partial (rubbing, washing). Patients who are contraindicated in a bath or shower are given a rubdown with warm water with the addition of cologne, vinegar or alcohol.



Rice. four.Hygienic bath.



Rice. 5.Benefit when taking a hygienic bath.

In the bathroom, the bathtub has wooden flooring. It is washed with a washcloth and a brush with soap and a disinfectant solution (1% chloramine solution), the stains are washed with a 3% solution of hydrochloric acid, rinsed with hot water and filled with water immediately before the patient appears in the bathroom (the water temperature is measured). The bath must have an electric urn for heating clothes. There should be sterile bags with clean linen and a washcloth. After washing the patient, the bath is washed with soap and rinsed with a 1% solution of chloramine.

Oilcloth pillow and oilcloth on the couch are wiped with a cloth moistened with a 2% solution of chloramine or 0.5% bleach solution, and then washed with soap. The sheets on the couch are changed after each patient. Wet cleaning of the premises is carried out several times a day. Inventory must be marked. Washcloths should be in different containers ("Used washcloths", "Clean washcloths").

Practical skills.

Carrying out a hygienic bath.

Purpose of bathing: Skin cleaning.

a) Providing comfort and relaxation to the patient. b)

Stimulation of blood circulation.

c) Removal of secretory and excretory secretions.

d) The release of time for assessing the patient's condition and his education. e) Timely detection of skin lesions.

*Equipment:*bath, water thermometer, wooden stand (bench), washcloth, soap.

Order of conductprocedures:

1. Make sure the shower or bathroom is free. Check the cleanliness, if necessary, clean the bath in accordance with the instructions of this institution.
2. Prepare everything you need: 2 towels, 2 cloth washcloths and some personal items of the patient.
3. Place a rubber mat or towel on the bottom of the tub or shower to keep the patient from getting slippery.
4. Explain to the patient how to hold on to the rails so as not to fall when he enters or exits the bath, and show the location of the signal button to call for help.
5. To bathe the patient, half fill the bath with warm water (43-46 ° C), checking the temperature of the water with a thermometer. When taking a shower, help the patient to walk to the shower and wash, if necessary; adjust the water temperature and jet strength help the patient wash their back.
6. Help the patient get into the shower or bath.
7. *Do not leave the door of the room where the patient washes, in case he needs help.*
8. *Flush the bathroom before leaving the patient to reduce the risk of falling.*
9. Help the patient get out of the shower or bath, dry off, put on clean underwear or clean pajamas (robe).
10. Put things in order in the room where the patient washed, according to the instructions of this medical institution.

11. Put dirty laundry in a special bag and wash your hands.

Medical documentation:

a) Indicate in the case history how the patient was

washed. b) Note the patient's reaction to bathing.

c) Describe the condition of the patient's skin and any pathological changes on it: redness, violation of integrity, rash.

Instructions for the nurse:

a) Before bathing, it is necessary to decide which type of washing is most suitable for this patient (the decision is made by the doctor!).

b) In order to make assistance individual, it is necessary to find out how the patient prefers or is accustomed to washing.

in) Before bathing, it is necessary to identify potential risk factors: violation of the integrity of the skin, physical inactivity, impaired sensitivity, cardiovascular insufficiency.

G) *Carefully check the condition of the patient's skin during bathing to detect rashes, redness, increased dryness of the skin, violation of its integrity.*

e) In obese patients, thoroughly wash the abdomen and breasts (for women), paying attention to the skin folds.

The results of the examination and treatment of the patient in the emergency room are recorded in the medical history and examination log for pediculosis or Journal of Infectious Diseases. When pediculosis is detected, they produce:

a) registration in a magazine (f. No. 60);

b) an emergency notification of an infectious disease is sent (f.058 / y) in the Central State Sanitary and Epidemiological Service for registration of pediculosis at the patient's place of residence;

in) is being done a mark on the front side of the medical history;

G) sanitization of the patient, disinsection and disinfectionpremises and objects with which the patient was in contact;

e) when body lice are found, it is necessary to urgently call the specialists of the Central State Sanitary and Epidemiological Service to treat people; linen must be boiled, clothes that cannot be boiled are ironed with seams, folds with a hot iron;

f) upon detection of pubic lice, sanitization is carried out with hot water with soap and a washcloth, followed by a change of linen. With the consent of the patient, if necessary, shave off the hair.

Attention !!! Examination and disinsection of a seriously ill patientproduced after emergency medical treatment.

Control questions for topic number 1

1. What do the concepts of medical ethics and deontology include?
2. What rooms does the reception area consist of?
3. In what sequence does the work of the admission department proceed?
4. What logs should the admissions nurse fill out?
5. What does the sanitary and hygienic treatment of a patient in the emergency department include?
6. What rooms does the sanitary inspection room of the hospital admission department consist of?
7. Bathroom fixture?
8. How is a patient treated for pediculosis?
9. What types of sanitation of patients exist?
10. What are the contraindications for bathing and showering?
11. How is the complete hygienic treatment of patients carried out?

Topic number 2.

Medical department of the hospital.

A. Sanitary and hygienic regime of the therapeutic department B. Duties of a ward nurse.
C. Organization of the work of the treatment room of the therapeutic department.
D. Anthropometry

The student needs to be aware of:
1. Features of the sanitary-hygienic regime of the therapeutic department.
2. Responsibilities of a ward and procedural nurse in hospital departments.
3. Anthropometry parameters.

The student must have the skills to:
1. Maintaining a sanitary and hygienic regime in the wards of the therapeutic department.
2. Disinfect patient care items.
3. Carrying out the duties of a ward nurse.
4. Performing the duties of a procedural nurse.
3. Carry out determination of body weight, measurement of height, measurement of chest circumference.

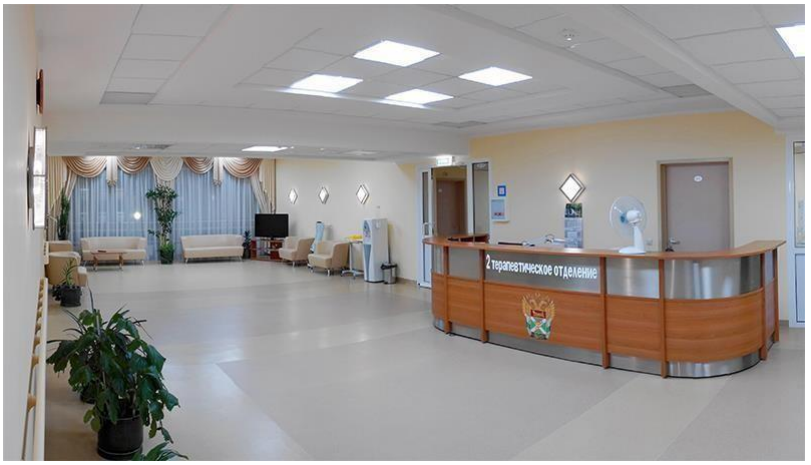


Fig.1. Central Clinical Hospital of the Federal Customs Service of Russia. Therapeutic department.

All premises, equipment, medical and other inventory must be kept clean. Wet cleaning of premises (mopping,

wiping furniture, equipment, window sills, doors, etc.) is carried out at least twice a day (and more often if necessary). Detergents (soap and soda, other solutions approved by the authorities and the sanitary and epidemiological service) are used in accordance with the instructions approved by the Ministry of Health of the Russian Federation. Containers with disinfectant solutions must be labeled with the name, concentration and date of preparation. Fig.2

Fig.2.Wet cleaning of the wards.

Disinfectant solutions are stored in a specially allocated place, a room inaccessible to patients.

Wiping of window glass should be carried out at least once a month from the inside and as it gets dirty, but at least once every four to six months - from the outside. For wet cleaning, liquid detergents are used.

All cleaning equipment (buckets, basins, rags, mops, etc.) must be clearly marked indicating the premises and types of cleaning work (for example, for washing floors in wards, etc.), used strictly for their intended purpose and stored separately. Toilet cleaning equipment is stored only in the toilet. After cleaning, the rags are disinfected in a 0.5% bleach solution or 1% chloramine solution with an exposure of 1 hour or in another regulated solution. (Fig.3)

Fig.3.Cabinet for storage of cleaning equipment.

General cleaning of wards and other functional rooms or premises should be carried out according to the approved schedule at least once a month with thorough washing of walls, all equipment, as well as wiping furniture, lamps, protective blinds, etc. from dust. (Fig.4)

Fig.4.Current room cleaning.

General cleaning (washing and disinfection) of treatment rooms is carried out once a week with the release of the premises from equipment, furniture and other inventory. (Fig.5)

Fig.5.General cleaning of the treatment room.

To collect garbage and waste in the corridors, toilets and other auxiliary premises, bins should be installed, and pedal buckets should be installed in the treatment rooms.

Premises that require compliance with a special sterility regime (dressing rooms, procedural rooms) should be irradiated after cleaning with ultraviolet stationary or mobile bactericidal lamps at the rate of 1 W of lamp power per 1 m2 of room area for 2 hours in the absence of people and the presence of a lamp passport. (Fig.6, 7).

Fig.6.bactericidallamps.

Fig.7.Irradiation with bactericidal lamps in the ward.

Every year, all premises are prepared for winter (checking and repairing heating and ventilation systems, glazing, insulation and pasting of windows, insulation of doors, etc.)

The hospital administration organizes continuous preventive treatment of the premises of the hospital, against insects and rodents under contracts with des. service.

Junior medical personnel include junior nurses, housewives, nurses.

There are two systems of organization of patient care: two-stage and three-stage. With a two-stage system, doctors and nurses are directly involved in patient care. In this case, the junior medical staff helps to create an appropriate sanitary and hygienic regime in the department (cleans the premises, etc.). Under the three-tier system, junior nurses take part in the direct care of patients. A person who has completed nursing courses for junior nurses is appointed to the position of a junior nurse for patient care. She reports directly to the ward nurse.

Junior Nurse (Nursing Nurse)helps the ward nurse in caring for the sick, carries out a change of linen, ensures that the patients themselves and the hospital premises are clean and tidy, participates in the transportation of patients, and monitors patients' compliance with the hospital regime. (Fig.8).

Fig.8.Junior nurse: a patient's allowance for movement in the department.

Mistress Sisterdeals with household issues, receives and distributes linen, detergents and cleaning equipment, and directly supervises the work of nurses. (Fig.9)

Fig.9.Mistress sister.

nursesthe scope of duties is determined by their category (nurse of the department, nurse-barmaid, nurse-cleaner, etc.) (Fig. 10, 11).

Fig.10.Nurse - barmaid.

Fig.11.Sanitary cleaner.

The general responsibilities of nursing staff are as follows:

1. Regular wet cleaning of premises: wards, corridors, common areas, etc.
2. Assistance to a nurse in caring for the sick: changing linen, feeding a seriously ill patient, hygienic provision of physiological supplies for seriously ill patients - giving, cleaning, washing vessels, urinals, etc.
3. Sanitary and hygienictreatment of patients.
4. Accompanying patients for diagnostic and treatment procedures.
5. Transportation of patients.

The ward nurse (Fig. 12) helps the attending physician anddirectly reports to the head nurse of the department, a person with a secondary medical education is appointed to the position of a ward nurse and performs the following duties:

1. Cares and monitors patients based on the principles of medical deontology.

2. Timely and accurately fulfills the appointment of the attending physician; in case of non-fulfillment of prescriptions, regardless of the reason, immediately report this to the attending physician.

3. Organizes timely examination of patients in diagnostic rooms, with consultant doctors in the laboratory.

4. Monitors the patient's condition, physiological functions, sleep. Report any changes to the attending physician.

5. Immediately notifies the attending physician, and in his absence, the head of the department or the doctor on duty about a sudden deterioration in the patient's condition.

6. Participates in bypassing doctors in the wards assigned to her.

7. Reports on the condition of patients, writes down the prescribed treatment and care for the sick, monitors the implementation of appointments.

8. Provides sanitary and hygienic care for the physically weakened and seriously ill (washes, feeds, gives drink, rinses the mouth, eyes, ears, etc., as needed).

9. Accepts and places patients in the ward, checks the quality of sanitation of newly admitted patients.

10. Checks transmissions to patients to avoid ingestion of contraindicated food and drink.

11. Isolates patients in an agonal state, is present at death, calls a doctor to ascertain death, prepares the corpses of the dead for transfer to the morgue.

12. Hands over duty in the wards at the bedside of patients. Taking duty, she inspects the premises assigned to her, the state of electric lighting, the presence of hard and soft equipment, medical equipment and tools, and medicines. Signs for taking duty in the diary of the department.

13. Controls the implementation by patients and their relatives of the regimen of the day of separation. On cases of violation of the regimen, the nurse reports to the senior nurse.

14. Supervises the work of junior medical personnel and monitors their compliance with the internal labor regulations.

15. Once a week, the patient is weighed, noting the weight of the patient in the medical history. All admitted patients measure body temperature 2 times a day, write down the indicators in the temperature sheet.

16. Upon detectionthe patient shows signs of an infectious disease, immediately informs the attending physician about this, by his order, isolates the patient and immediately performs the current disinfection.

17. According to the doctor's prescription, he counts the pulse, respiration, measures the daily amount of urine, sputum, etc., records these data in the medical history.

18. She monitors the sanitary maintenance of the wards assigned to her, as well as the personal hygiene of patients (skin care, mouth care, cutting hair and nails), timely taking hygienic baths, changing underwear and bed linen, records the change of linen in the medical history.

19. Takes care of the timely supply of patients with everything necessary for treatment and care.

20. In case of changes in the patient's condition that require urgent measures, he informs the doctor of the department about this, and in his absence, the doctors immediately call the doctor on duty, provide emergency first aid.

21. Ensures that patients receive food according to the prescribed diet.

22. She makes sure that the medicine given to the patient is taken in her presence.

23. She improves her professional qualifications by attending scientific and practical conferences for paramedical personnel and participating in the competition for the title of "Best in Profession".

24. Maintains required accounting records.

25. In the absence of the hostess, together with the nurse, she is responsible for the safety of the received linen for the patients.

26. In the absence of a senior nurse, she accompanies the doctors of the department, the doctor on duty, and representatives of the administration during the rounds. Enters in the diary of the department all the comments and orders made.

27. Carry out sanitary and educational work to promote health and prevent diseases, promote a healthy lifestyle.

Rights of a ward nurse:

1. In the absence of a doctor, provide emergency first aid to patients in the department.

2. Improve your professional qualifications in specialcourses in the prescribed manner.

3. Give orders to the junior nurse, nurses and monitor their implementation.

4. Receive information necessary for the performance of their duties.

Responsible for:

Unclear or untimely fulfillment of duties stipulated by this instruction and the internal labor regulations of the hospital.

Rice. 12.Ward medical-sky sister.

Organization of the work of the treatment room. Documentation of the treatment room.

In each medical institution, taking into account the specifics of its work, there must be a properly equipped treatment room (Fig. 13), the functions of which are to carry out medical and diagnostic manipulations:

- injections: intradermal (in / c), subcutaneous (s / c), intramuscular (in / m), intravenous (in / in), etc .;
- blood sampling for various diagnostic studies;
- assembly of systems for intravenous drip administration of drugs;
- preparation and conduct of punctures;
- preparation for transfusion of blood, its components, blood substitutes;
- carrying out disinfection, all stages of pre-sterilization cleaning, preparation for sterilization and sterilization of medical instruments, medical supplies and dressings.

Requirements for the premises of the treatment room, its arrangement and equipment are set out in section 1 SanPiN 2.1.3.2630-10 "Sanitary and

epidemiological requirements for organizations engaged in medical activities".

Rice. 13.Typical treatment room.

Treatment room documentation:

- register of conductedmedical manipulations;
- control log of registration of blood group and Rh factor;
- register of blood transfusion, plasma;
- register of blood transfusion, blood substitutes and protein preparations;
- a register of blood sampling for biochemical studies, for the Wasserman reaction (RW);
- register of reception and delivery of duty;
- journal of accounting for the consumption of narcotic drugs;
- sterilization mode control log (steam, air, etc.);
- log book for quality control of pre-sterilization processing of instruments (azopyramic and phenolphthalein samples);
- register of disposable syringes (receipt, consumption);
- log of temperature regime and defrosting (disinfection) of the refrigerator;

- General cleaning schedule for a month, signed by the head. department,

a journal of general cleaning;

- journal (form) of accounting for the operation of bactericidal lamps (UV irradiators);

- register of cases of injuries and emergencies when working with blood (one

- per department);

- journal of complications associated with parenteral manipulations;

- instructions for providing first aid for anaphylactic shock;

- instructions for providing medical care in case of infection with

biomaterials (with the "AntiAIDS" first-aid kit;

- table of antidotes used in acute poisoning;

- instructions for the use of disinfectants currently in use.

Rice. fourteen.Procedural Nurse.

Treatment room nurse(Fig. 14) has certain job responsibilities. This is the implementation of medical and diagnostic manipulations and the correct organization of the work of the office:

1. Know and comply with orders and instructions on the sanitary and epidemiological regime of the treatment room, maintain affirmative accounting and reporting medical documentation.

2. Ensure infectious safety (observe the rules of the sanitary-hygienic and anti-epidemic regime, asepsis; storage, processing and use of medical devices).

3. Strictly observe the technology of procedures and manipulations:

- injections (in/to, n/to, in/m, in/in, etc.);
- taking blood for research;
- preparation for infusion therapy (determination of the blood group, testing for individual and biological compatibility of blood, preparation of the system for intravenous drip infusions);
- preparation of workersdisinfectant solutions;
- disinfection and pre-sterilization cleaning (PSC) of medical supplies.

4. Immediately notify the doctor about complications resulting from medical manipulations or cases of violation of the internal regulations of the medical institution.

5. Master the methods of first aid and resuscitation, administer drugs, anti-shock agents (in case of anaphylactic shock) to patients according to vital indications (if it is impossible for a doctor to arrive to the patient in a timely manner).

6. Prepare a set of tools and materials and assist the doctor during medical and diagnostic manipulations and minor operations (determination of the blood group, testing for individual and biological compatibility of blood, punctures, venesections, blood transfusions, etc.).

7. Maintain approvedaccounting and reporting documentation of the treatment room in the prescribed form.

8. Replenish the office with the necessary amount of instruments and medicines.

9. Observe the correct storage conditions for drugs, solutions and sera.

10. Comply with internal regulations and safety regulations.

11. Organize the work of junior medical staff.

12. Observeethical and deontological norms of a medical worker.

13. Interact with colleagues and staff from other services on behalf of the patient.

The procedural nurse has the right to:

1. Get the information you need to do your job.

2. Make proposals to improve the efficiency of the organization and labor productivity.

3. Participate in discussions on issues related to the position.

4. Improve your medical knowledge, improve your skills.

5. Participate in cross-checks as directed by management. Get acquainted with the acts of checking the work of the office and, in case of disagreement, make comments and suggestions.

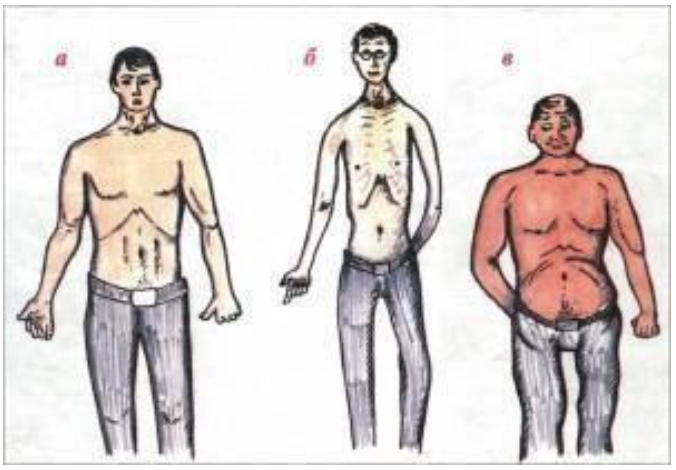
6. To petition the administration for the issuance of an incentive or the imposition of a penalty on the junior staff of the treatment room.

7. Take part in the work of the council of procedural nurses, conferences, etc.

Physique - the ratio of height and transverse dimensions of the body; symmetry and proportionality of its individual parts + type of constitution.
Correct physique -chest circumference - ½ of height; both halves of the body are symmetrical; body proportionally; anomalies, physical defects are absent.
According to the three main types of constitution, people can be divided into:

- normosthenics (mesomorphs) a);

- asthenics (dolichomorphs) b);
- hypersthenics (brachymorphs) c) Fig.15.



Rice. fifteen.constitutional types.

These types are divided according to the ratio of the longitudinal dimensions of the chest to the longitudinal dimensions of the abdominal cavity, the length of the lower limbs, the total length and width of the body, and other features. Belonging to one or another type of constitution can be established, for example, by the value of the intercostal angle (in mesomorphs it is approximately equal to 900, in dolichomorphs it is noticeably less than this value, in brachymorphs it is noticeably larger) or by the ratio of the length of the femur to the total length of the body.

You can also determine the constitution by calculating the proportionality index (PI) of the physique:

$$IP = \frac{\text{chest circumference}}{\text{growth}} \times 100\%,$$

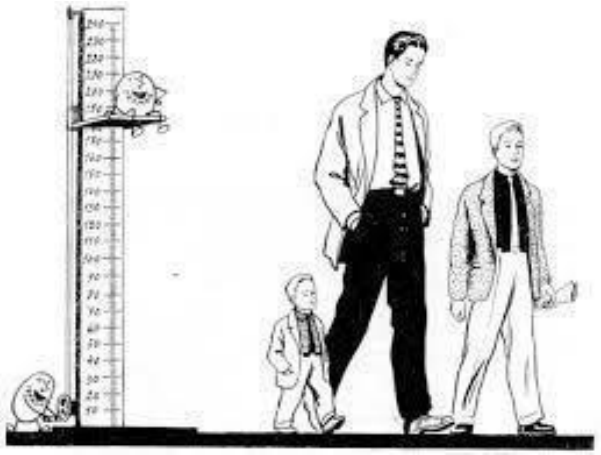
while normosthenic PI for men = 52-54%, for women - 50-52%. Indicators below these are typical for asthenics, higher - for hypersthenics.

Obvious physique pathology can provide information about possible diseases in a patient:

gigantism(men over 200 cm tall, women over 190 cm) – with hyperproduction of somatotropic hormone of the pituitary gland, with hypogonadism, congenital anomaly of the connective tissue (Marfan's syndrome) (Fig. 16);

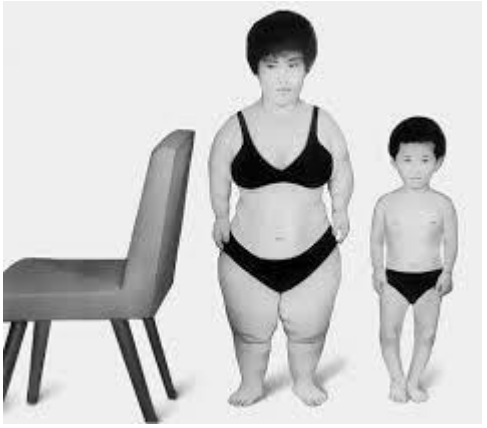
Rice. 16.Gigantism.

dwarfism(less than 135 cm, proportionately folded) - dwarfism in hypothyroidism, chromosomal abnormalities, hypoproduction of somatotropic hormone, tuberculosis of the spine (Fig. 17);



Rice. 17.Dwarfism against the background of normal growth and gigantism.

chondroplastic dwarfism (shortening of the limbs with normal sizes of the trunk and head) -congenital anomaly in the development of cartilaginous tissue (Fig. 18);



Rice. eighteen.Chondroplastic dwarfism vost against the background of a normal child.

effeminate body in men and masculine body in women -violation of the production of sex hormones - a pathology of three systems: reproductive, hypothalamic-pituitary or adrenal glands (Fig. 19);

Rice. 19.Woman, I take bodybuilding.

eunuchoidism– effeminate type, combined with small head sizes and high stature;

infantilism - adolescent body type in adults - with rickets, heart defects, severe anemia, diseases of the digestive system (Fig. 20).

Rice. twenty.Explanations in the text.

If the patient is in a satisfactory condition, anthropometry is performed (weighing, measurement of height and chest circumference). Anthropometry is a set of methods and techniques for measuring the human body (Greek anthropos - a person, and metreo - I measure).

Weighing the patient is carried out upon admission to the hospital, weekly and at discharge. In severe debilitating diseases, an increase in body weight indicates an improvement in the patient's condition, and in obesity, a decrease in body weight indicates the correctness of the treatment. In heart failure, on the contrary, an increase in body weight is a bad sign (fluid retention in the body), and a decrease is a good sign (decrease in edema). This procedure is carried out under certain conditions: in the morning, on an empty stomach, after emptying the intestines.

cervix and bladder, in one linen.Patients in serious condition can be weighed while sitting, after weighing the chair (Fig. 21).

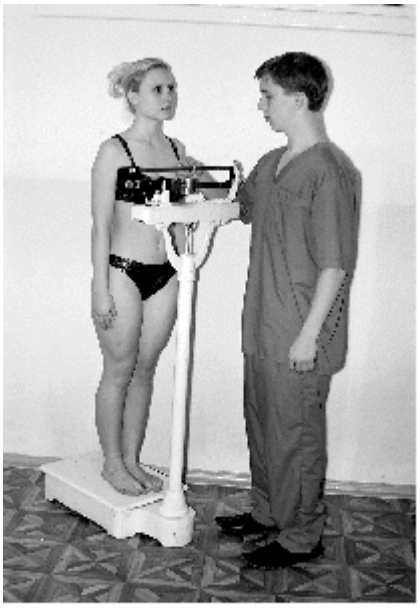


Рис. 1.5.
Взвешивание на медицинских весах рычажного типа.

Rice. 21.Explanations in the text.

According to the ratio of the height and weight of the patient, a conclusion is made about his normal, overweight or insufficient weight (Fig. 19).

There are various evaluation methods, for example, the Broca index, which is determined by the formula:

$$\frac{\text{weight (kg)}}{\text{height (cm)} - 100} X100\%$$

and is equal to the norm of 90 - 110%, if it is more than 110%, then the weight is considered excessive, if less than 90% - then insufficient.

Quetelet index:

$$\frac{\text{mass (kg)}}{\text{height (m)}2} = X$$

in this case, the result is considered to be from 18 to 24.9.

Fig.22.Explanations in the text.

Practical skills.

Determination of body weight.

*Equipment:*medical scales, clean disinfected oilcloth 30 x 30 cm on the scale platform, 5% chloramine solution with 0.5% detergent solution, rags for double processing of oilcloth, latex gloves.

Mandatory conditions:

- weighing is carried out on an empty stomach at the same hours;
- empty the bladder beforehand;
- after bowel emptying (preferably);
- in underwear.

Research progress:

1. Warn the patient about the upcoming procedure, explain the purpose, conditions of preparation.
2. Lower the weighing shutter.
3. Set the weights of the scales in the zero position, adjust the scales.
4. Close shutter.
5. Lay the disinfected oilcloth on the scale platform.

6. Invite the patient to carefully stand in the center of the scales on an oilcloth (without slippers).
7. Open the shutter and by moving weights to establish balance.
8. Perform weighing.
9. Close shutter.
10. Instruct the patient to step off the scale carefully.
11. Record the weighing data on the temperature sheet.
12. Rate the result.
13. Remove the oilcloth and treat it by double wiping with a 5% solution of chloramine with a 0.5% solution of detergent.

Definition of growth.

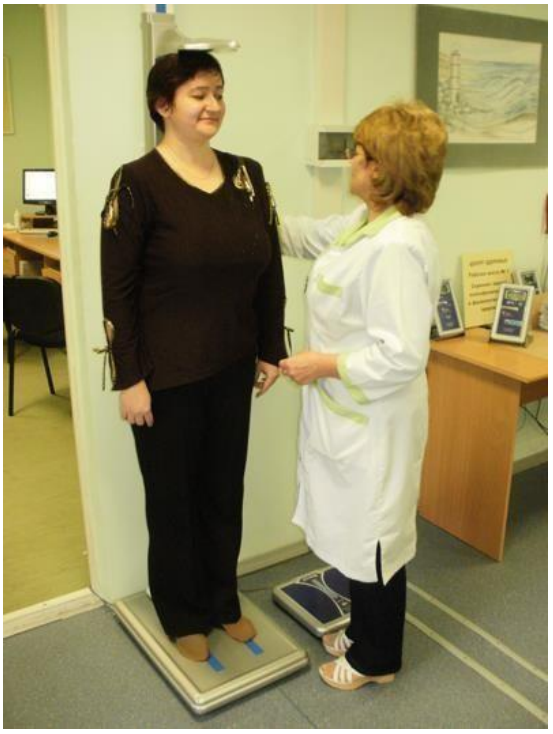


Fig.23.Definitiongrowth.

*Equipment:*stadiometer, clean disinfected oilcloth 30x30 cm, container with disinfectant solution, 5% chloramine solution with 0.55% detergent solution, rags for processing oilcloth, stadiometer, paper, pen, latex gloves.

*Mandatory conditions:*determination of the patient's height is performed after removing shoes and headgear (Fig. 23).

Research progress.

1. Establish a trusting relationship with the patient by explaining the purpose of the examination and the position of the body during the procedure.
2. Wash your hands, put on gloves.
3. Lay the oilcloth on the platform of the stadiometer.
4. Stand on the side of the stadiometer and raise the bar above the expected height of the patient.
5. Invite the patient to stand on the platform of the stadiometer, on the oilcloth so that he touches the vertical bar with the back of the head, shoulder blades, buttocks, and heels.
6. Set the patient's head so that the outer corner of the orbit and the external auditory meatus are at the same horizontal level.
7. Lower the bar of the stadiometer onto the patient's crown.
8. Invite the patient to leave the platform of the stadiometer.
9. Determine the patient's height using the stadiometer scale.
10. Inform the patient about the measurement results.
11. Remove the oilcloth and wipe twice with a 5% solution of chloramine with a 0.5% solution of detergent.
12. Remove gloves, immerse in a disinfectant container, wash and dry hands.

Measurement of chest circumference.

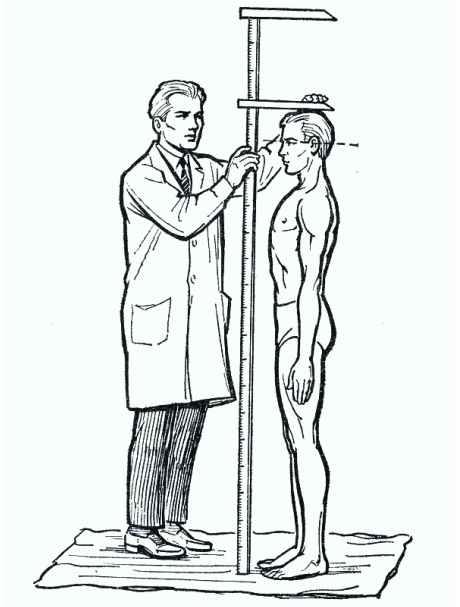


Рис. 6. Измерение роста антропометром Мартина.

Рис. 7. Измерение окружности грудной клетки.

Rice. 24.Explanations in the text.

*Equipment:*centimeter tape, 70% ethyl alcohol or 1% chloramine solution, gauze pads, latex gloves, sheet of paper, pen (Fig. 24).

Research progress:

1. Explain to the patient the purpose of the study and the course of the procedure, obtain consent.
2. Wash and dry hands, put on gloves.
3. Invite the patient to stand facing the nurse with their hands down.

4. Apply a centimeter tape on the patient's body from behind under the lower angles of the shoulder blades, in front - along the fourth rib, along the nipple line (in men) or above the breast (in women).
5. Determine the circumference of the chest at rest, maximum inhalation, full exhalation.
6. Write data: OGK rest; WGC_{breath} ; OGK exhale.
7. Disinfect the centimeter tape (wipe with a cloth moistened with alcohol or 1% chloramine solution twice on both sides).
8. Remove gloves, wash and dry hands.

Control questions for topic number 2.

1. What is the sanitary and hygienic regime of the therapeutic department.
2. How are corridors and utility rooms cleaned?
3. What are the responsibilities of a ward nurse?
4. What are the duties of a procedural nurse?
5. How are rooms cleaned?
6. How are patients weighed?
7. How is the growth of patients measured?

Topic number 3.

Transportation of patients.

A. Methods of transportation of patients.
B. Supporting the patient when walking, moving in bed.

The student needs to be aware of:

1. Methods of transporting patients to hospital departments.
2. Biomechanics of the body of the patient and the nurse.
3. Ways to maintainpatient while walking.
4. Help the patient move in bed.

5. Assist the patient in moving from bed to chair.

The student must have the skills to:

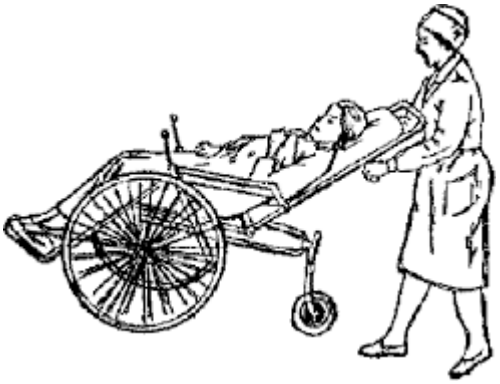
1. Transportation of the patient.
2. Application of the rules of biomechanics of the body of a nurse in order to prevent spinal injuries.
3. Correctly seat the patient in a wheelchair.
4. Transfer the patient from the stretcher to the bed, from the bed to the stretcher.

The method of transportation of the patient is determined by the severity of his condition.

It can be transported on a stretcher by hand, on a gurney, wheelchair or on foot. Patients who are in a satisfactory condition are sent to the department on foot, accompanied by medical personnel. Weakened patients, invalids, elderly and senile patients are often transported in a wheelchair. Seriously ill patients are transported on a stretcher (manually or on a gurney) lying down. Transferring a patient from a stretcher to a bed requires skill and care: this is done by 2-3 health workers. For ease of carrying, the stretcher is placed in relation to the bed at a right angle, parallel, sequentially, close, shifting the patient with the stretcher close to the bed requires effort from the patient and therefore is not always acceptable.

Practical skills.

Transportationpatient on a wheelchair (Fig. 1).



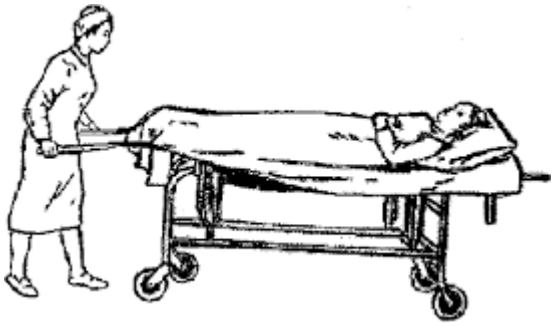
Rice. one.Wheel chair.

*Equipment:*wheel chair.

Performancemanipulations:

1. Prepare the wheelchair for transportation, check its serviceability.
2. Tilt the wheelchair forward by stepping on the footrest.
3. Ask the patient to stand on the footrest, seat, supporting him in the chair, cover with a blanket.
4. Return the wheelchair to its original position.
5. During transport, make sure that the patient's arms do not extend beyond the armrests of the wheelchair.
6. The patient can be transported on a wheelchair in a sitting, reclining, lying position, changing the position of the back and foot panel.

Transportation of the patient on a stretcher (Fig. 2).



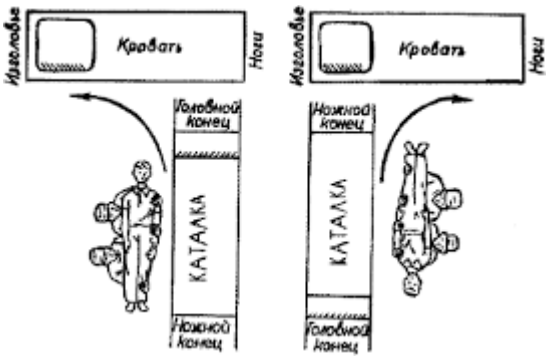
Rice. 2.Wheelchair for transporting patients.

*Equipment:*wheelchair (stretcher).

Manipulation progress:

1. Prepare the wheelchair for transportation, check its serviceability.
2. Lay a sheet on the gurney (if necessary - oilcloth), put a pillow, a blanket.
3. Place the wheelchair (stretcher) with its foot end perpendicular to the head end of the couch (bed).
4. Stand three of us near the patient on one side: one brings his hands under the head and shoulder blades of the patient, the second - under the pelvis and upper thighs, the third - under the middle of the thighs and shins.

5. Lift the patient at the same time, turning 90o towards the stretcher.
6. Cover the patient with the free end of the blanket, put a pillow under his head.
7. One healthcare worker stands in front of the gurney, with his back to the patient, the other stands behind the gurney facing the patient.
8. Notify the department that the patient is being transported to them.
9. To transportpatient to the department with a medical history.
10. In the department: bring the head end of the gurney to the foot end of the bed.
11. Take the blanket off the bed.
12. The three of us raise the patient and, turning 90 degrees, put him on the bed (Fig. 3).



Rice. 3 Explanations in the text.

You can not shift the patient on a sheet!

Transportationthe patient on a stretcher manually (Fig. 4a, b).

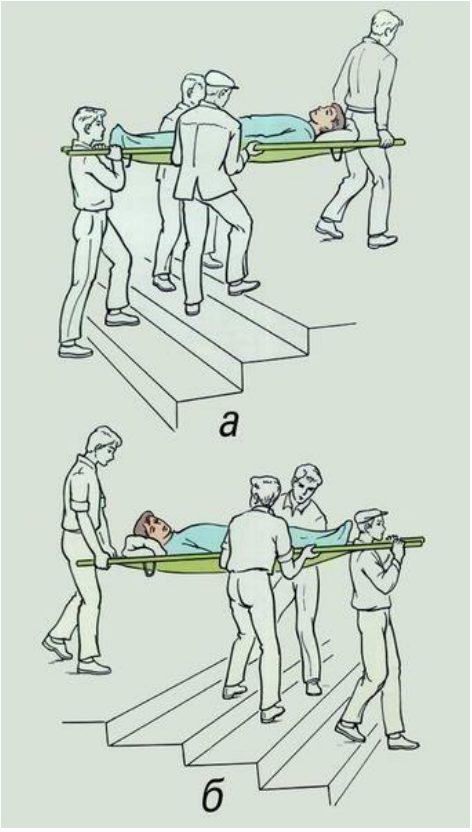


Fig.4 a, b.Explanations in the text

*Equipment:*stretcher: a) when lifting; b) descending.

*Manipulation progress:*stretcher.

1. Carry the patient on a stretcher should be without haste and shaking.
2. Cover the stretcher with a blanket, top with a sheet, if necessary, lay an oilcloth.
3. Explain to the patient the peculiarities of his behavior during transportation.
4. When transporting a stretcher with a patient up the stairs, the one walking in front holds the handles of the stretcher on his lowered arms, and the one walking behind - on his shoulders.
5. When descending the stairs, the opposite is true: the one walking behind holds the handles of the stretcher on outstretched arms, and the one walking in front - on his shoulders.
6. Up the stairs, the patient is carried head first, and down - feet first.

To reduce the negative impact on the patient of a limited mode of motor activity, to prevent damage to organs during various movements of the patient, to reduce the

risk of possible

injuries in a nurse who cares for a patient, it is necessary to know and follow a number of rules of biomechanics.

Biomechanics-a science that studies the laws of mechanical motion in living systems. In medicine, he studies the coordination of the efforts of the musculoskeletal system, the nervous system and the vestibular apparatus, aimed at maintaining balance and ensuring the most physiological position of the body at rest and during movement.

According to the laws of biomechanics, only the movement that ensures the achievement of the set goal with the greatest benefit for the body, the least muscle tension, energy consumption and load on the skeleton in any position of the human body is effective.

Before starting to move the patient it is necessary to determine;

- ❖ the purpose of the move;
- ❖ conditionpatient health; opportunities for collaboration;
- ❖ availability of aids for movement (cane, crutch, walker).
- ❖ define the role of a leader who can give clear, concise commands and explanations to the patient.

When performing various movements, lifting, moving, the service personnel must remember:

- ❖ before lifting the patient, you need to bring him to a safe, comfortable position;
- ❖ for attendants to take a safe, comfortable position with balance in relation to the weight of the patient and the direction of movement;
- ❖ use your own body weight to relieve tension caused by arm movements, especially if you need to make several swinging movements to create the necessary momentum to lift the patient.

❖ when starting the lift, you need to make sure that your legs are in a stable position;

❖ make sure you are in the best position to hold the patient, keep your back straight, get as close to the patient as possible and move in the same rhythm as the rest of the assistants.

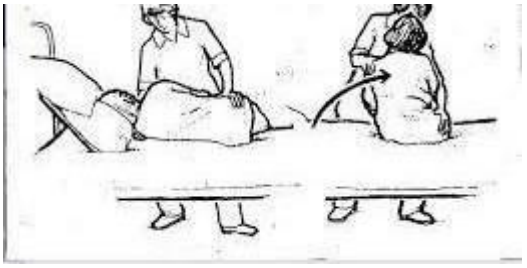
It must be remembered that the movement of the patient can only be successful if the actions in the team are coordinated:

❖ choose a leader who will be the leader of the brigade and will give commands;

❖ choose the best method of handling the patient;

❖ determine who will take on the hardest job - holding the hips and torso of the patient (this should be the strongest and healthiest nurse, regardless of position)

Moving the patient from the position "lying on his side" to the position "sitting with legs down" (Fig. 5).



Rice. 5.Patient transfer.

*Indications:*forced passive position, change of position of the patient's body at the risk of bedsores.

Performed by one nurse.

Manipulation progress:

1. Establish a trusting relationship with the patient.
2. Assess the patient's condition and the possibility of assistance from his side.

3. Assess the environment to ensure patient safety.
4. Lower the side rails (if any) on the side where the nurse is.
5. Stand in front of the patient, bring your left hand under his shoulders, right hand - under his knees, covering them from above.
6. Raise the patient, lowering his legs down and at the same time turning him in bed in a horizontal plane at an angle of 90o.
7. Seat the patient, continuing to face him and holding him with his left hand by the shoulder, and with his right hand by the body.
8. Make sure the patient is seated firmly and confidently.
9. Place a support under the patient's back.
10. Put on slippers for the patient and place a bench under your feet.
11. Wash and dry your hands.

Moving the patient from a seated position to a "lying on the bed» **(Fig.6).**

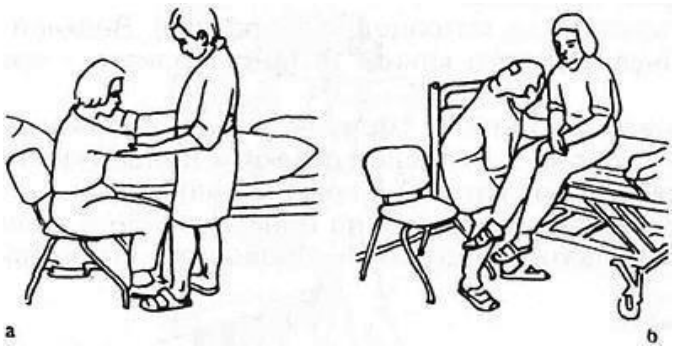


Fig.6.Explanations in the text.

*Indications:*moving the patient if the patient can help.

Performed by one nurse.

movemanipulations.

1. Establish a trusting relationship with the patient.
2. Assess the patient's condition and the possibility of assistance from his side.
3. Assess the environment to ensure patient safety.
4. Warn the patient that on the count of three you will help him to stand up.

5. Warn the patient that on the count of "three" you will help him to stand up.
6. Put the patient on the count of three on his feet (turn at the same time as him, leg to leg, until he feels the edge of the bed.)
7. Place the patient on the bed. Stand facing the patient on the side of him, closer to the head
8. Spread your legs 30cm wide
9. Turn your leg, located closer to the headboard, outward.
10. Keep your back straight.
11. Pass one hand under the patient's knees, grasp the patient's shoulders.
12. Raise the patient's legs on the bed, while turning his torso around its axis by 90o and lowering his head onto the pillow.
13. Cover the patient, make sure that he lies comfortably and comfortably.
14. Wash and dry hands.

Control questions for topic number 3.

1. How are patients transported to departments?
2. What laws of biomechanics provide for human movements?
3. What assistance does the nurse provide when moving the patient in bed.
4. How to properly seat a patient in a wheelchair.
5. How to transfer a patient from bed to stretcher.

Topic number 4.

Personal hygiene of the patient.

A. Change of underwear and bed linen. B. Submission of the vessel.
B. Washing away a seriously ill patient. G. Washing feet in bed for a seriously ill person.
D. Hygiene of the oral cavity, eyes, nose, ears, hair. E. Skin care.

The student needs to be aware of:

1. Personal hygiene of the patient.
2. Rules for changing underwear and bed linen.
3. The technique of delivering the vessel to a seriously ill patient.
4. The main techniques used when washing away patients.
5. Hair washing technique for a seriously ill patient
6. Rules for washing feet in bed.
7. Features of the treatment of the oral cavity in seriously ill patients.
8. Hygiene of the eyes, nose, ears.
9. Risk factors for the formation of bedsores.
10. Places of possible formation of bedsores, stages of their formation.

The student must have the skills to:

1. Change of underwear and bed linen for the patient.
2. Prepare a bed for the patient, taking into account the prevention of pressure sores.
3. Give a vessel and a urinal to a seriously ill patient.
4. Wash the seriously ill.
5. Carry out hygienic treatment of hair and legs.
6. Treat the oral mucosa.
7. Organize and provide assistance during the morning toilet: washing, wiping the eyes, cleansing the external auditory canal, nasal cavity.
8. Treat natural folds and prevent diaper rash.
9. Carry out wiping the skin with a light massage to the patient in bed.

Personal hygiene -this is a broad concept that includes the implementation of rules that preserve and strengthen human health. The first priority is to keep the body clean.

Hygiene is necessary for the well-being of the patient and positive self-esteem.

In practice, hygiene is highly individual and is influenced by the characteristics of the patient's personality, including the following:

a) cultural level;

b) socio-economic status;in)
religion;
G) level of general
development;e)condition health;
e) personal preferences.

The nurse must be aware of all these factors in order to provide individualized patient care. She is obliged to help the patient satisfy all hygienic needs, since some of them can be realized only with outside help. The nurse needs to encourage all efforts of the patient to maintain hygiene.

The skin of the bodyperforms a protective function (protects the body from mechanical damage, penetration of harmful and toxic substances, microorganisms from the external environment), participates in metabolism (respiratory, excretory functions), thermoregulation is a component of one of the sense organs - the skin analyzer (Fig. 1) .

Rice. one.skin functions.

During physical activity, with an increase in body temperature, with diseases of the kidneys, liver, respiratory system, digestive tract and skin

excretory function is in a state of tension. Through the skin, gas exchange increases, the amount of excreted substances increases many times over. Through the skin, its sweat glands excrete water, urea, uric acid, sodium, potassium and other substances. At rest, at normal temperature, about a liter of sweat per day is released, and in febrile patients - up to 10 liters or more. In some diseases, sweating increases dramatically.

Pollution of the skin disrupts the protective properties of the skin and the ratio of microorganisms that normally inhabit it, creating conditions for the reproduction of foreign microbes and parasitic fungi. All this can lead to the appearance of a pustular rash, peeling, diaper rash, ulceration, bedsores. For normal functioning of the skin, it is necessary to keep it clean and protect it from damage.

Patients who are on a general regime wash themselves in a bath or shower at least once every 7 days. The nurse should keep a schedule of hygienic baths for walking patients with a note in the medical history. Underwear and bed linen are changed at least once a week after taking a bath, as well as in case of accidental contamination.

For patients who are indicated for bed rest or strict bed rest, the use of a hygienic bath or shower is contraindicated due to the severity of the condition and the high risk of complications. However, skin hygiene is essential for such patients. Seriously ill patients are recommended to wipe the skin at least twice a day with a swab or the end of a towel moistened with warm water or an antiseptic solution (10% camphor alcohol solution, vinegar solution - 1 tablespoon per glass of water, 70% ethyl alcohol mixed with water, 1% salicylic alcohol). Then the wiped places are wiped dry (Fig. 2).

Fig.2.Skin care.

The nurse washes the patient (face, neck, hands) with a sponge moistened with warm water. Then dries the skin with a towel. The patient's feet are washed two or three times a week, placing a basin on the bed, after which, if necessary, the nails are cut short. With poor skin care, diaper rash, bedsores and other complications can occur that worsen the patient's condition.

Especially carefully it is necessary to wash and dry the skin folds under the mammary glands in women (especially in obese women), armpits, inguinal folds, since otherwise there is a high risk of developing diaper rash. In this case, the protective properties of the skin are reduced, and microorganisms get the opportunity to penetrate through the damaged skin. In order to prevent diaper rash, it is necessary to examine the skin folds under the mammary glands, in the armpits, and in the inguinal folds daily. After washing and drying, these areas of the skin must be powdered with powder.

The position of the patient in bed should be comfortable, the bed linen should be clean, the bed net should be stretched, the mattress should be even. For seriously ill patients and patients with urinary and fecal incontinence, an oilcloth is placed on the mattress cover. For women with abundant discharge, a diaper is placed on the oilcloth, which is changed as it gets dirty.

Patients who are on strict bed rest, if necessary, empty the intestines, a vessel is served in bed, and when urinating, a urinal is used (vessels are used for women). Vessels are metal with enamel coating and rubber. A rubber vessel is used for debilitated patients, as well as in the presence of bedsores, urinary and fecal incontinence. Before giving the patient a urinal, it must be rinsed with warm water (Fig. 3).

Fig.3.Delivery of the ship.

Patients who can take care of themselves wash themselves with boiled water and soap every day, preferably in the morning and evening.

Seriously ill patients who are in bed for a long time and who are not able to regularly take a hygienic bath should be washed after each act of defecation and urination. Patients suffering from incontinence should be washed several times a day, as the accumulation of urine and feces in the perineum and inguinal folds can cause diaper rash, bedsores, and infection (Fig. 4).

Fig.4.Washing the patient.

Patients who are in bed for a long time need constant hair care. Men are cut short and have their hair washed once a week during a hygienic bath. For those patients who are not allowed to take a bath, they can wash their hair in bed. For this, a basin is placed at the head end of the bed, and the patient's head is thrown back over the basin. While lathering (preferably with soap foam), you need to rub the scalp well under the hair, then rinse the hair, wipe dry and comb. To do this, take a frequent comb. Short hair is combed from roots to ends, and long hair is divided into strands and slowly combed from ends to roots, trying not to pull them out. After washing, the head is tied with a towel or scarf (to avoid hypothermia) (Fig. 5).

Fig.5.Hair care.

In addition to washing, comb your hair daily. To do this, use an individual frequent comb. A frequent comb moistened with a solution of vinegar combs out dandruff and dust well. Scallops should be kept clean, wiped with alcohol, vinegar, washed in hot water with soda or ammonia. Combs and combs must be individual.

Care of the oral cavity is a necessary procedure for all patients, since microorganisms accumulate there, causing bad breath and causing inflammatory changes in the teeth, mucous membranes of the oral cavity, and excretory ducts of the salivary glands. Assistance in such care must be given to patients who are not able to do it themselves.

Patients should thoroughly brush their teeth, especially near the gums, 2-3 times a day, preferably after each meal. If this is not possible, rinse your mouth after meals with lightly salted water (1/4 teaspoon of table salt per glass of water) or a solution of baking soda (1/2 teaspoon per glass of water). This procedure is also necessary for people who do not have teeth.

For seriously ill patients who cannot brush their own teeth, after each meal, the nurse should treat the oral cavity. After that, the gums are gently and thoroughly wiped with a cotton ball or gauze, fixed with a clamp or forceps and moistened with an antiseptic solution (Fig. 6).

Fig.6.Oral care.

Patients who have impaired nasal breathing and who breathe almost completely through the mouth often suffer from dry lips and mouth. After a while, they develop cracks in the corners of their mouths, which can be painful, especially when talking, yawning, and eating. The patient must be taught not to touch these wounds with his hands and not to open his mouth wide. The lips are gently wiped with a swab moistened with a 1:4000 solution of furacilin, and then lubricated with vegetable, or olive, or vaseline, or sea buckthorn oil.

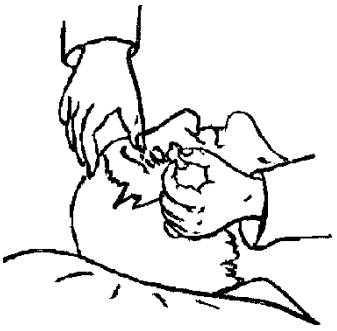
To prevent the formation of cracks and drying of the lips, patients in a coma with artificial ventilation of the lungs are given a gauze pad moderately moistened with a solution of furacilin, which is replaced as it dries.

Patients with a high fever, a viral infection, or a severe circulatory disorder sometimes develop aphthous stomatitis, which causes bad breath. To get rid of this smell, it is necessary to treat, first of all, the underlying disease. Be sure to rinse your mouth with disinfectant solutions (0.2% sodium bicarbonate, 1% sodium chloride solution or dental elixir).

If the patient has removable dentures for the night, they are removed, thoroughly washed with running water and stored in a dry glass. Before putting on, they are washed again (Fig. 7).

Fig.7.Care of dentures.

Walking patients take care of their eyes during the morning toilet. Seriously ill patients often develop discharge from the eyes, sticking together the eyelashes and making it difficult to see. To remove a purulent discharge, the eye is washed with a 3% solution of boric acid, or a solution of rivanol, or a weak solution of potassium permanganate from a rubber can or a gauze swab (Fig. 8). To collect the flowing fluid, a tray is used, which the patient himself holds under his chin. You can wash your eyes in a special stemmed cup (undine) (Fig. 9).



Rice. eight.Washing eyes.

Fig.9.Eyewash Cup (Undinka)

It must be remembered that a separate sterile swab is taken for each eye. After manipulating the treatment of the patient's eyes, the nurse should thoroughly wash their hands with soap and treat them with alcohol.

Walking patients during the morning toilet take care of the nose on their own. Seriously ill patients who are not able to follow the hygiene of the nose, it is necessary to free the nasal passages from secretions and formed crusts. The nurse should do this daily. To do this, cotton is wrapped around a metal probe (or a cotton swab is taken), moistened with vaseline oil, inserted into the nasal passage and crusts are removed with rotational movements (Fig. 10).

Rice. ten.Nose care.

It must be remembered that crusts cannot be removed with dry cotton wool, because. can cause bleeding.

Patients who are on a general regimen wash their ears on their own during the morning daily toilet. Patients on bed rest clean their ears 2-3 times a week so that sulfur plugs do not form. Sulfur falls out of the ear in the form of lumps or crumbs. It can accumulate in the ear canal and form wax plugs, which can dramatically reduce hearing (Fig. 11, 12).

Fig.11.Ear Care

Rice. 12.Instillation into the ears of 3% hydrogen peroxide to soften the sulfur plugs.

In seriously ill patients, bedsores can form - necrosis **(necrosis)**skin with subcutaneous tissue and other soft tissues, developing as a result of constant compression, impaired local blood circulation and nervous trophism. The formation of bedsores is facilitated by the lack of mobility of the patient, poor-quality care of the patient's skin, an uncomfortable bed, and its rare re-laying (Fig. 13).

Rice. 13.Skin care for the seriously ill.

Every cell of the human body needs to receive oxygen, water and nutrients and to remove waste products from it. The blood brings the necessary substances to the cells and carries away the waste. The metabolism necessary to maintain the vital activity of the cell is carried out. The movement of blood through the body occurs as a result of the work of the heart.

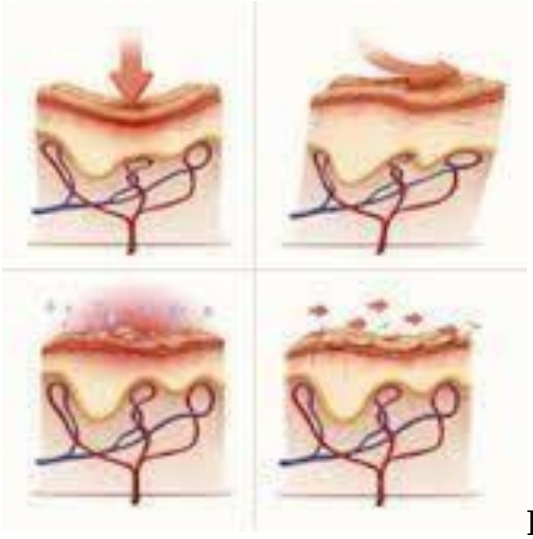


Fig.14.Vessels of the microvasculature of the skin.

The vital exchange of oxygen, nutrients and other waste products takes place as long as the blood is moving through

capillaries (Fig.14). The formation of bedsores leads to a violation of blood flow in the capillaries, which are located at the points of contact of the skin with the surface of the bed, where a flattening zone is formed. These are places where blood flow is disturbed in squeezed areas of the skin. If blood movements are blocked for a long time, then a significant number of cells die. Within a few days, dead cells disintegrate, resulting in tissue necrosis - pressure sores (Fig. 15).

In the occurrence and development of bedsores, the leading role belongs to two factors:

- deep trophic disorders in the body;
- prolonged compression of soft tissues.

Fig.15.Lie on your back.

It must be remembered that the formation of bedsores can be facilitated by compression of soft tissues if the patient's body rests against hard objects (headboard, side limiter on the bed, etc.).

If the patient's movement function is impaired, any hard object that exerts pressure on the skin can be dangerous. Buttons, knots in clothing, pins and other small objects that have fallen into the bed can create areas of strong pressure on the patient's body and block

blood movement. Poorly applied splints, bandages, catheters also contribute to the formation of bedsores. Skin lesions can occur in a patient in bed when he rests his elbows and heels on its surface, trying to move. He slips, rubbing his elbows and heels on the sheets, there is a “burn” from the wound. A similar situation is when an immobile patient is pulled along the bed, while friction of the skin against the sheet occurs.

Dangerous for the skin can be an ordinary adhesive plaster. When applied unevenly, it will stretch the skin, forming folds. When the patch is removed from the surface of the skin, the epidermis is torn off, which makes the skin thinner and more easily damaged.

Bedsores are divided into two groups:

1. exogenous
2. Endogenous.

Exogenous bedsores are external and internal. External exogenous bedsoresoccur when soft tissues are compressed (especially if they do not contain muscles - for example, in the region of the ankles, calcaneal tubercle, condyles and trochanters of the thigh, olecranon, etc.), between a bone (usually a bony protrusion) and some an external object (mattress surface, bandage, splint, etc.). In the vast majority of cases, such bedsores occur in operated patients who are in a forced position for a long time, in trauma patients with an incorrectly applied plaster cast or splint, ill-fitting prosthesis, corset, medical orthopedic apparatus (Fig. 16).

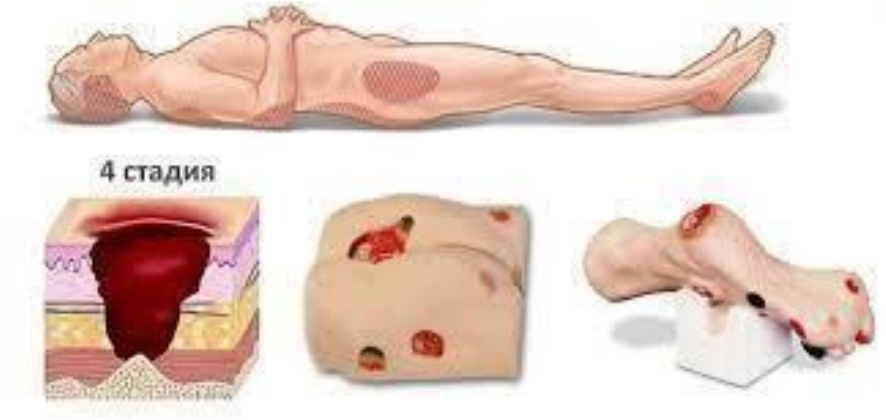


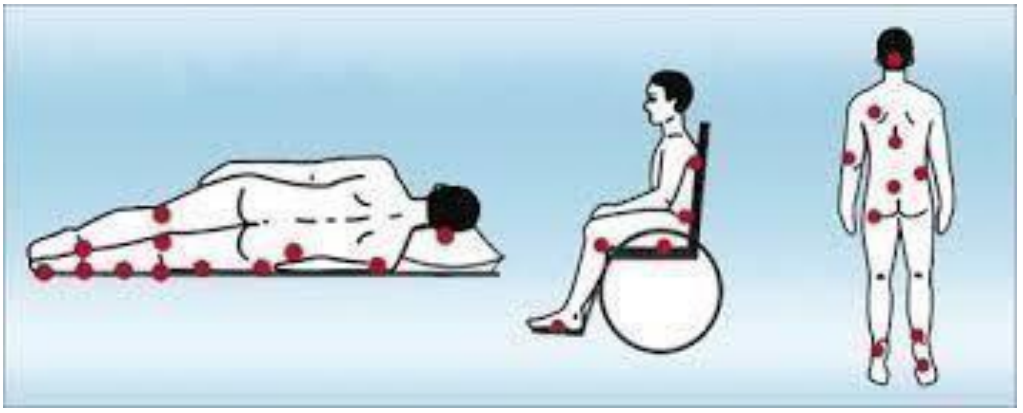
Fig.16.Bedsores.

Internal exogenous bedsoresarise in the walls of the wound, in the mucous membrane of the organ, the wall of the vessel as a result of a long stay in the depth of the wound or the corresponding organ of rigid drainage tubes, a dense swab, a tracheotomy tube, a dental prosthesis, a catheter.

In the occurrence of endogenous bedsores, the main role is played by the weakening of the body, a deep violation of its basic vital functions and tissue trophism. They are divided into two groups:

1. mixed
2. Neurotrophic.

Endogenous mixed bedsoresoccur in seriously malnourished patients with deep circulatory disorders, often suffering from diabetes mellitus, who are forced to lie motionless in bed for a long time, not having the strength to independently change the position of the body or its individual parts (legs, arms). In this case, even slight pressure in a limited area leads to ischemia of the skin and underlying tissues and the formation of bedsores. Bedsores occur (Fig. 17):



Rice. 17.Places of formation of bedsores.

- ❖ in the position of the patient on the back - in the area of the tubercles of the calcaneus, sacrum, shoulder blades, on the back surface of the elbow joints, less often over the spinous processes of the thoracic vertebrae and in the area of the external occipital protrusion;
- ❖ when the patient is on the stomach - on the anterior surface of the legs, especially above the anterior edges of the tibia, in the region of the patella and upper anterior iliac spines, as well as at the edge of the costal arches;
- ❖ when the patient is on his side - in the region of the lateral malleolus, condyle and greater trochanter of the femur, on the inner surface of the lower extremities in places of their close contact with each other;
- ❖ with a forced sitting position of the patient - in the area of the ischial tuberosities.

The first sign of the formation of bedsores- pallor of skin areas with their subsequent redness, swelling, peeling of the epidermis. Then blisters and skin necrosis appear. In severe cases, not only soft tissues are subjected to necrosis, but also the periosteum and surface layers of the bone substance. Attachment of infection can cause sepsis and lead to death of the patient (Fig. 18).

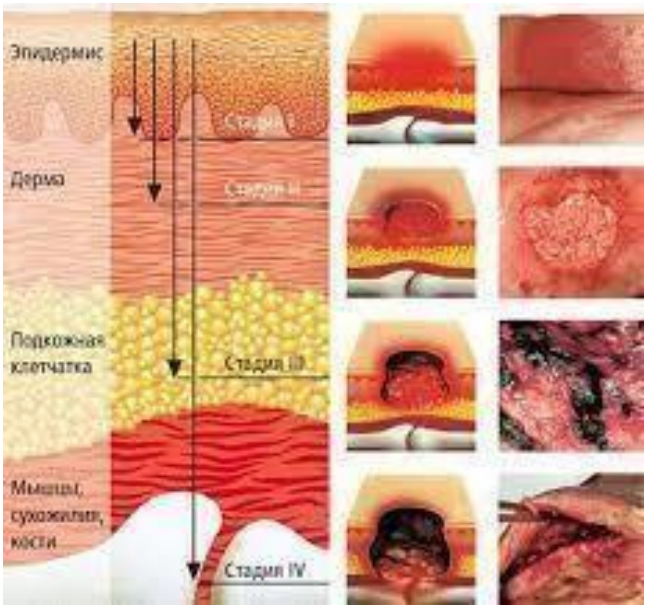


Fig.18.Stages of formation of bedsores.

There are three stages in the development of necrobiotic processes in pressure ulcers:

1 stage (st.I, II Fig.18)(circulatory disorders) - characterized by blanching of the corresponding area of the skin, which is quickly replaced by venous hyperemia, then cyanosis without clear boundaries; tissues become edematous, cold to the touch. At this stage, with the exogenous development of bedsores, the process is still reversible: the elimination of tissue compression usually leads to the normalization of local blood circulation. With a bedsore of endogenous origin (and with continued pressure on tissues with an exogenous pressure sore), at the end of stage 1, vesicles appear on the skin, which, merging, cause detachment of the epidermis with the formation of excoriations.

At this stage, patients rarely complain of severe pain, more often they note a weak local pain, a feeling of numbness. In patients with spinal cord injury, erythema may develop within a few hours, and after 20-24 hours, small areas of necrosis already appear in the sacral region.

2 stage (St. III, IV Fig.18)(necrotic changes and suppuration) - characterized by the development of the necrotic process. In addition to the skin, subcutaneous tissue, fascia, tendons, etc. can undergo necrosis. With exogenous

in bedsores, the formation of dry necrosis is more often observed, the rejection of which proceeds with the participation of a saprophytic infection; with an endogenous bedsore, an inflammatory process develops caused by pathogenic microflora, and wet gangrene develops with symptoms of intense suppuration.

In the case when the bedsore develops according to the type of dry necrosis, the general condition of the patient is not noticeably aggravated, the phenomena of intoxication do not occur. A strictly limited area of the skin and underlying tissues undergoes mummification, there is no tendency for necrosis to expand in area and in depth. After a few weeks, the mummified tissues begin to be gradually torn off, the wound heals. This clinical course of pressure sores is the most favorable for the patient.

With the development of a decubitus according to the type of wet necrosis, dead tissues acquire an edematous appearance, a fetid turbid liquid is separated from under them. In decaying tissues, pyogenic or putrefactive microflora begins to multiply rapidly and wet gangrene develops, which is called decubital gangrene.

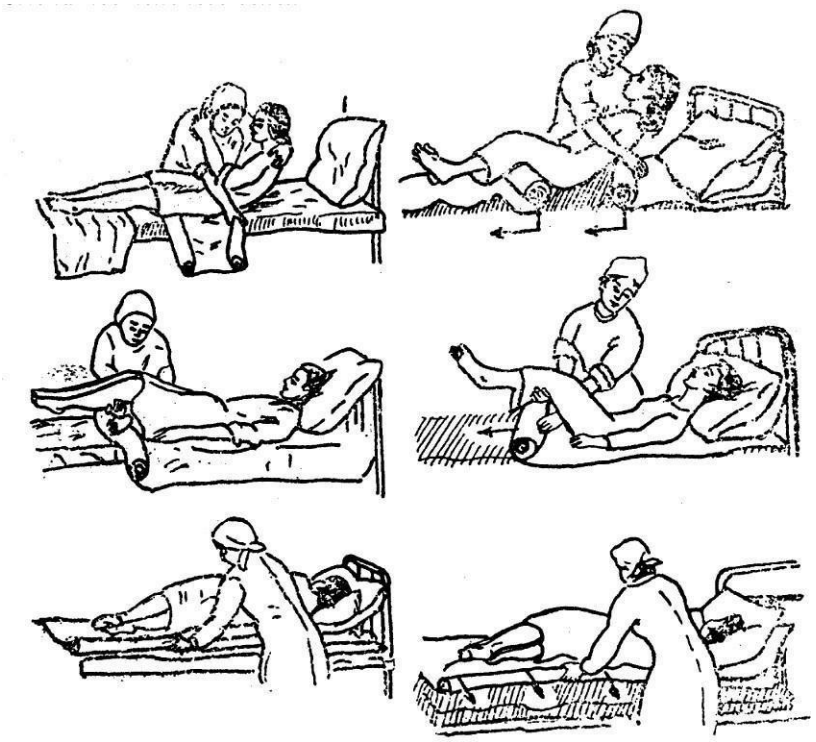
The process of decay and suppuration spreads over the area and deep into the tissues, quickly reaching the bones, which are often exposed in the area of bedsores. Decubital gangrene leads to a serious deterioration in the general condition of the patient. Clinically, this is manifested by signs of purulent-resorptive fever - a rise in temperature to 39-40 ° C, increased respiration, tachycardia, muffled heart tones, a decrease in blood pressure, an increase in the liver. The blood shows leukocytosis with neutrophilia, anemia, accelerated ESR; dysproteinemia; proteinuria, hematuria, pyuria.

Bed sores can be complicated by phlegmon, abscess, purulent swells, erysipelas, purulent tendovaginitis, arthritis, gas phlegmon, anaerobic infection, cortical osteomyelitis, etc. The most typical complication for severely weakened patients is the development of sepsis.

3 stage (healing)- characterized by the predominance of reparative processes, the development of granulation tissue, partial or complete epithelialization of the defect. The clinical picture may be different depending on the etiology of the bedsore, the patient's condition, the presence of pathogenic microflora, the nature of necrosis.

Practical skills.

***Change of bed linen*(Fig.19).**



Rice.19.Change of bed linen. Explanations in the text.

Seriously ill change of bed linen produced in two ways.

First way:

1) roll a dirty sheet into a roller from the side of the head and legs of the patient;

2) gently lift the patient and remove the dirty sheet;

3) put a clean sheet rolled up in the same way under the lower back of the patient and straighten it.

The second method (longitudinal method, performed by one nurse). Target:change of bed linen for patients on bed rest.

Equipment: a set of clean linen (pillowcase, sheet, duvet cover, oilcloth, diaper); gloves; oilcloth bag for used bed linen
underwear.

*Mandatory conditions:*observance of infectious safety, correct biomechanics of the body of the patient and the nurse when moving the patient in bed.

Preparation for the procedure:

1. Explain the procedure to the patient and obtain consent.
2. Prepare a set of clean linen: roll the sheet along the length into a roll (if necessary - roll up the lining oilcloth, diaper).
3. Put on gloves, put a bag for dirty laundry nearby.
4. Lower the head of the bed to a horizontal level (if the patient's condition allows).
5. Make sure that there are no small things of the patient in the bed (having found them, remove them, notifying the patient about this).

Execution of a procedure.

1. Stand on the side of the bed, lower the handrails.
2. Remove the duvet cover from the blanket, cover the patient temporarily with a clean duvet cover, fold the blanket and hang it over the back of a chair (make sure the clean bedding you have prepared is nearby).
3. Go around the bed, stand on the opposite side, release the edges of the sheet from under the mattress.
4. Turn the patient on their side towards you.
5. Raise the side rail (the patient can keep himself in a position on his side by holding on to the rail).

6. Return to the opposite side of the bed, release the edges of the sheet from under the mattress on this side.

7. Raise the patient's head and adjust the pillow.

Note:if there are drainage tubes, make sure they are not kinked.

8. Roll up a dirty sheet towards the back of the patient and slip this roll under his back (if there is an oilcloth with a diaper, roll them together with the sheet into a roll).

Note:if the patient's skin is heavily contaminated (with secretions, blood), perform a wet wiping of the skin.

9. Cover the edge of the bed with a clean sheet rolled up, roll the roll along the length to the back of the patient and slip it under his back.

10. Help the patient roll over the sheets towards you, making sure they are comfortable and that the drainage tubes are not kinked.

11. Raise the other side rail.

12. Return to the opposite side of the bed, lower the handrail.

13. Remove the dirty sheet by rolling it into a roll while unrolling the clean sheet.

14. Tuck a clean sheet under the mattress at the head of the bed using the “bevel” method, then tuck the top third, bottom third of the sheet with your hands palms up.

15. Put dirty linen in an oilcloth bag.

16. Straighten a clean sheet (if necessary, an oilcloth with a diaper, make sure that the diaper covers the edges of the oilcloth).

17. Help the patient roll over onto their back and lie down in the middle of the bed.

18. Put the blanket in a clean duvet cover that the patient was covered with.

Note:put the duvet over the duvet cover. Ask the patient to hold the top edge of the duvet cover, slide the blanket into it and straighten it so that it hangs equally on both sides of the bed.

19. Tuck the ends of the duvet under the mattress.

20. Change the pillowcase in the usual way, removing the pillow from under the patient's head.

21. Elevate the patient's head and shoulders and place a pillow.

22. Raise the side rail of the bed.

End of procedure.

1. Remove gloves, place them in a container for disinfection, wash and dry your hands.

2. Make sure the patient is comfortable.

***Vessel supply*(Fig.20).**

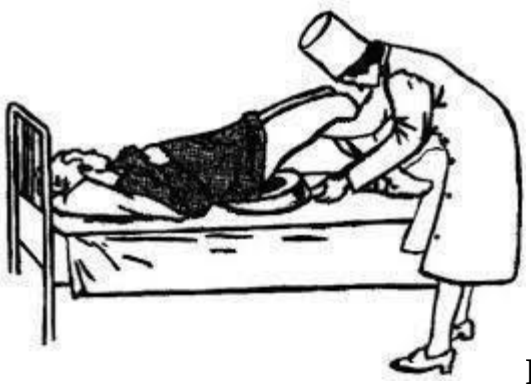


Fig.20.Delivery of the vessel to a seriously ill patient.

Equipment: vessel, 2 labeled oilcloths – "for ships", "linen oilcloth", diaper, screen, toilet paper, 2 pairs of gloves, regulated disinfectant solution in containers, labeled accordingly

Corresponds to "disinfection of gloves", disinfection of oilcloths", "disinfection of boats".

Performanceprocedures.

1. Isolate the patient from others with a screen, put an oilcloth under the pelvis.

2. Rinse the vessel with warm water, pour a small amount of disinfectant solution into the vessel.

3. Bring the left hand from the side under the sacrum of the patient, helping the patient to raise the pelvis (his legs are bent at the knees).

4. With your right hand, bring the vessel under the buttocks of the patient so that the perineum is above the opening of the vessel.
5. Cover the patient with a blanket and leave him alone.
6. After the act of defecation, pour the contents of the vessel into the toilet, rinsing the vessel with hot water (with powder) and a disinfectant solution.
7. Wash the patient, dry the perineum, remove the oilcloth.
8. Remove gloves, discard in a container for disinfection.
9. Wash the patient's hands and dry
10. Wash the hands of the nurse, dry.

***Washing away the sick*(Fig.21).**

Fig.21.Washing the seriously ill.

Purpose: observance of personal hygiene of the patient, prevention of ascending infection.

Equipment: sterile: tray, forceps, napkins, oilcloth, diaper, soap, vessel, Esmarch's jug or mug with water (water temperature 35-38°C), gloves.

Execution of a procedure.

Washing women.

1. Establish a friendly, confidential relationship with the patient.
2. Put on gloves.
3. Spread an oilcloth and diaper under the patient's pelvis, put the vessel under her sacrum on the oilcloth.

4. Help bend your knees and slightly spread them apart.
5. Stand to the right of the patient.
6. Prepare soap solution.
7. Take a rubber tube from Esmarch's mug or a jug in your left hand, and a forceps with a gauze napkin soaked in soapy water in your right hand.
8. Treat the external genital organs in the following sequence: first, the labia minora is washed (with two different tampons or one large, but different sides), then the labia majora, inguinal folds, and lastly, the anus area is washed, each time changing the tampons.
9. Rinse the patient's perineum in the same sequence as washing.
10. Wash, rinse and thoroughly dry the patient's perineum and anus.
11. Remove the vessel, oilcloth, remove gloves.
12. Straighten bed linen, cover the patient.
13. Remove gloves, wash and dry hands.

Washing men (Fig. 22).

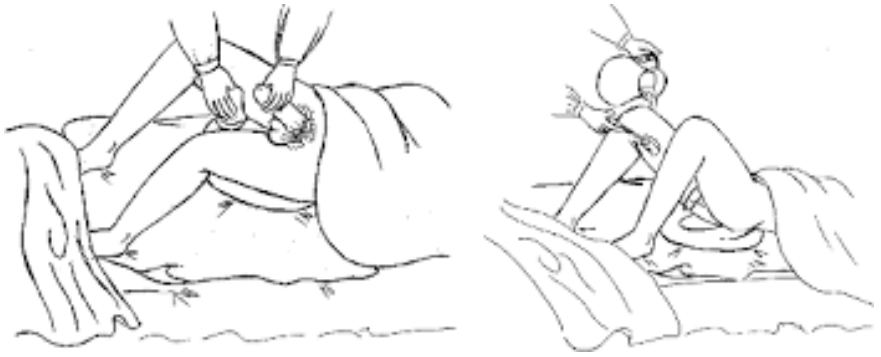


Fig.22.Washing technique for men on the left, women on the right.

1. Preparation for the procedure is the same as for women (see points 1-6).

2. Take the penis with one hand, pull the foreskin.

3. Wash the head of the penis in a circular motion in the direction from the urethra to the pubic area, drain.

4. Return the foreskin to its natural position.

5. Carefully treat, rinse and dry the rest of the penis, the skin of the scrotum, anus, changing tampons.

6. Remove the vessel, oilcloth, remove gloves.

7. Straighten bed linen, cover the patient.

8. Remove gloves, wash and dry hands.

Washing feet in bed for a seriously ill patient**(Fig. 23).**

Fig.23.Washing the feet of a seriously ill person.

Equipment: oilcloth, basin with warm water, individual soap, sponge, towel, scissors, gloves.

Performanceprocedures.

1. Establish a friendly, confidential relationship with the patient.

2. Wash hands, dry.

3. Put on gloves.

4. Roll up the mattress under the patient's knees.

5. Spread oilcloth, put a basin with warm water.

6. Wash the patient's legs in the pelvis with an individual sponge and soap.

7. Dry your feet with an individual foot towel.

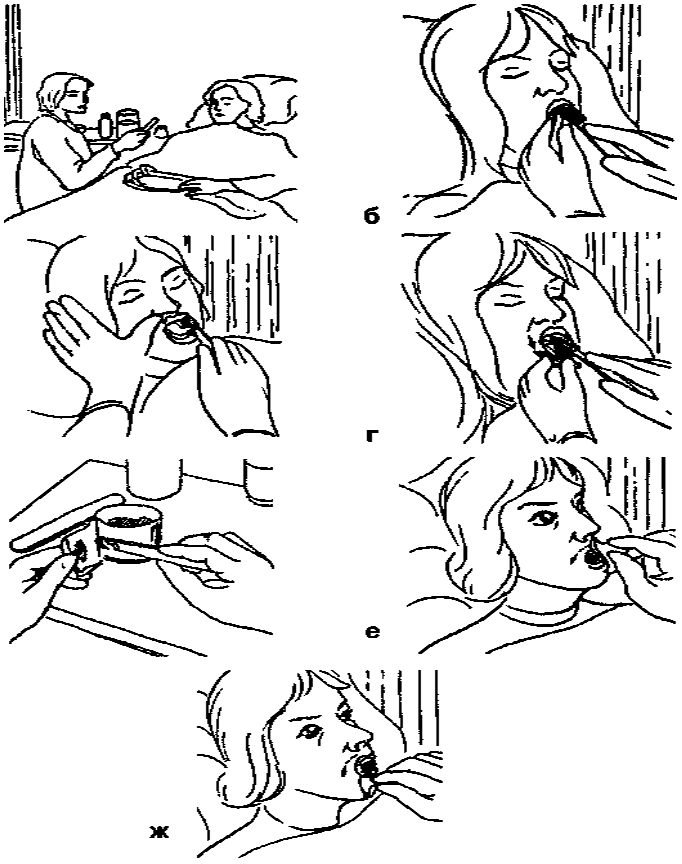
8. Trim your nails.

9. Disinfect scissors.

10.Remove all items for washing feet, straighten the mattress.

11.Remove gloves, wash and dry hands.

oral care**(Fig.24).**



Rice. 24.Caring for the oral cavity of a seriously ill patient.

Oral care of an unconscious patient.

Purpose: preventionstomatitis, caries, periodontitis.

Equipment: sterile - tray, 2 spatulas, napkins, mouth expander; glass with rinse solution, two towels, gloves - 2 pairs, adhesive tape, scissors, clean tray, toothbrush, petroleum jelly or lip cream, cup, paper tissue, container for disinfecting gloves.

Performanceprocedures.

1. Wash and dry hands.

2. Pour an antiseptic oral solution into a cup.

3. Wrap a napkin on a spatula, fix it with adhesive tape.

4. Sit opposite the patient, turn his head towards you so that his face is on the edge of the pillow.

5. Raise the patient's head and place a pillow under it.

6. Cover the patient's chest and neck with another towel, place the tray under the chin.

7. Put on gloves.

8. Gently open the patient's mouth, making sure there are no dentures.

9. Insert the first and third fingers of one hand between the upper and lower teeth.

10. Press these fingers on the upper and lower teeth, opening the patient's mouth wider, put a spatula or mouth expander between the teeth.

Note:prevent damage to the teeth when opening the mouth.

11. Wrap a napkin around your index finger, hold it with your thumb, securely fix it and moisten it in an antiseptic solution.

12. Treat with a napkin fixed on the index finger, the palate, the inner surface of the cheeks, teeth, gums, tongue, and the space under the tongue, then the lips.

Note:change napkins as they are contaminated with mucus, plaque, sticky saliva. Dispose of used wipes in disinfectant solution. You can use a soft brush (no paste!) to brush your teeth.

13.Apply Vaseline or other lip cream to your lips.

14. Remove used items.

15. Remove gloves and discard them in a disinfectant solution.

16. Lay the patient in a comfortable position.

17. Wash hands, dry.

Control questions for topic number 4.

1. Define the concept of personal hygiene of the patient.
2. What concerns the personal hygiene of the patient.
3. What is the function of the skin of the body.
4. What is skin hygiene?
5. What are the rules for the care of the perineum.
6. Describe the technique for washing patients.
7. How to properly care for the hair of patients.
8. Why is oral hygiene necessary?
9. How is eye care done?
10. How are the ears cared for?
11. How to take care of the nasal cavity.
12. Define the term bed sore.
13. Describe the pathogenesis of pressure sores.
14. What complications can develop in the formation of bedsores.
15. Describe the stages of pressure ulcer formation.
16. How is the change of bed linen for the patient.
17. How is the delivery of the vessel to the bed of the patient.
18. How is the washing of feet in bed for a seriously ill patient.

Topic #5

Nutrition of the sick.

A. Diet.
B. Drawing up a requirement.
B. Characteristics of the main treatment tables.

The student needs to be aware of:

1. Organizationsnutrition of patients in the department.
2. The role of nutrition in patient care.
3. Rules for compiling a portion requirement.
4. Diet tables.
5. artificial nutrition.
6. parenteral nutrition.

The student needs to have the skills to:

1. Conducting conversations with patients about the essence of the prescribed diet.

2. Feed a seriously ill patient from a spoon and drinker.
3. Introduce a seriously ill nutrient mixture into the rectum.

Food -it is one of the necessary physiological needs of the human body. “Let your food be your medicine,” Hippocrates instructed (Fig. 1). With food, a person receives biologically active compounds (BAS) - proteins, fats, carbohydrates, as well as water, mineral salts, trace elements, vitamins - substances necessary for normal cell metabolism.

Rice. 1. Hippocrates.

Splitting in the process of catabolism, BAS release heat (energy), which is measured in calories. 1 calorie (kcal) corresponds to the amount of heat required to heat 1 kg of water by 1°C. The calorie content, or the energy value of products, is calculated according to special tables.

The science of rational nutrition is called dietetics, and diet determines the diet, composition and amount of food. Diet therapy - therapeutic nutrition of the patient during treatment. Therapeutic nutrition is based on the teachings of I.P. Pavlov, who proved the need for timely food intake, the importance of not only the calorie content of food, but also the appearance of the dishes and even the persons who serve them. Nutrition should be regular, complete, varied and

moderate.A healthy person receives about 150 g of protein, 100 g of fat, 400-500 g of carbohydrates, 1500-2000 ml of liquid, about 10 g of NaCl per day, the required amount of K, Ca, Fe, Mn and other trace elements, as well as vitamins. The diet should contain about 40-50 g of ballast substances - dietary fiber (Fig. 2).

Rice. 2. The ratio of essential nutrients.

The body's need for food is regulated by appetite and satiety. Monotonous food can suppress appetite even in a healthy person. Food must be well cooked so that it is well digested and assimilated. If there are no contraindications to various seasonings and spices, then to improve the taste they can be added to the patient's food (Fig. 3).

Rice. 3.Explanations in the text.

Meals in hospitals are carried out 4 times a day, for heart diseases, stomach ulcers and duodenal ulcers - 5-6 times a day at a certain time, without haste. The temperature of hot dishes should be about 60°C, cold 10-15°C (Fig. 4).

Fig.4.Explanations in the text.

Nutrition in medical institutions is therapeutic in nature. Some patients are prescribed enhanced nutrition (persons with malnutrition, pregnant and lactating mothers), others are recommended complete fasting (uncontrollable vomiting, bleeding with gastric ulcer). Some patients limit the use of certain foods, for example, fatty foods for diseases of the gallbladder and liver, rough, spicy foods for stomach diseases, table salt for arterial hypertension, kidney diseases, fluids for edema. All these dietary features reflect 15 treatment tables from 1 to 15, some of them have their own divisions (see the textbook by V.N. Oslopov, O.V. Bogoyavlenskaya “General care for therapeutic patients”, 2009 pp. 104 - 136).

Diet -special diet, diet, compiled for the patient as a method of treatment or for the prevention of complications.

In most medical institutions, there is a centralized system in which all the processes of processing raw materials and food preparation are concentrated in the central catering department (Fig. 5).

Fig.5.The catering department of the district hospital.

The departments are supplied with food by special personnel with the help of intrahospital transport, which is equipped with thermal insulation containers (Fig. 6).

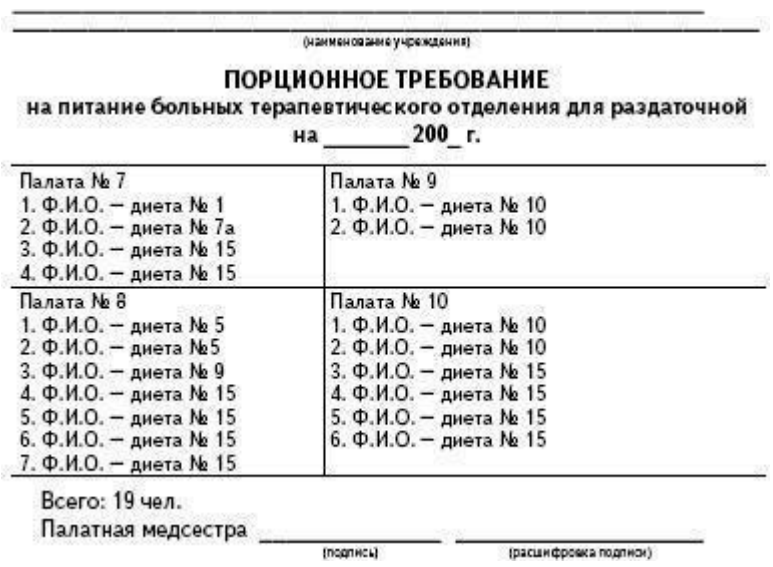
Fig.6.Issuing food to the barmaid sisters in the departments.

To control the nutrition of patients in large hospitals there are dieticians, and in departments - dieticians; their functions can be transferred to the head nurse of the department.

On a daily basis, on the basis of medical prescriptions, the nurse draws up a portion requirement for food for patients in the department. This document contains information about the number of different dietary tables and individual diets per department. The work of the catering unit is planned on the basis of the portion requirements of all departments of the hospital (Fig. 7.8).

The department has a pantry where patients take food. The barmaid must keep food containers in proper cleanliness. Tanks are installed on a special

Fig.7.Portion requirement.



(наименование учреждения)

ПОРЦИОННОЕ ТРЕБОВАНИЕ
на питание больных терапевтического отделения для раздаточной
на _____200_ г.

Палата № 7 1. Ф.И.О. – диета № 1 2. Ф.И.О. – диета № 7а 3. Ф.И.О. – диета № 15 4. Ф.И.О. – диета № 15	Палата № 9 1. Ф.И.О. – диета № 10 2. Ф.И.О. – диета № 10
Палата № 8 1. Ф.И.О. – диета № 5 2. Ф.И.О. – диета №5 3. Ф.И.О. – диета № 9 4. Ф.И.О. – диета № 15 5. Ф.И.О. – диета № 15 6. Ф.И.О. – диета № 15 7. Ф.И.О. – диета № 15	Палата № 10 1. Ф.И.О. – диета № 10 2. Ф.И.О. – диета № 10 3. Ф.И.О. – диета № 15 4. Ф.И.О. – диета № 15 5. Ф.И.О. – диета № 15 6. Ф.И.О. – диета № 15

Всего: 19 чел.
Палатная медсестра _____ _____
(подпись) (расшифровка подписи)

Rice. eight.Portion requirement(sample)

social mobile tables with a heating device and delivered to the pantry or ward (Fig. 9).

Fig.9.A mobile table for distributing food in the wards.

There should be stoves in the pantry room of the department to heat food if necessary. Tableware is stored in a pantry in special cabinets, washed in special sinks twice with hot water and mustard or soda, disinfected with a 0.2% clarified bleach solution, then rinsed with hot water and placed in drying cabinets. Tables are cleared after meals and washed with hot water and soap after dinner. The pantry should have refrigerators for storing butter, milk and other perishable products. Food waste is collected in separate closed buckets or tanks. In the summer, the pantry windows must be covered with fly screens. The presence of cockroaches and flies in the pantry indicate its poor sanitary condition (Fig. 10).

Fig.10.Distribution of food in the hospital.

Patients who are on a general regimen take food on their own in the pantry, in which there are tables for 2-4 people. They are seated according to the principle of dietary tables (Fig. 11).

Rice. eleven.Dining room in the hospital.

Patients with restricted motor regimen take food in the ward. Before eating, the nurse helps the patient wash their hands and seat them comfortably in bed.

Fig.12.Bedside table for the seriously ill.

For feeding bedridden patients, bedside tables are used, which are placed on the bed in front of the patient at different levels. The patient's neck and chest are covered with an apron or napkin. It is necessary to take care that the patient does not have objects that suppress appetite (jars with sputum, foul-smelling medicines, etc.) in sight of the patient during meals.

Feeding seriously ill patients is carried out by medical personnel. Weak patients are given a semi-sitting position by adjusting the functional bed. Seriously ill patients are fed in the most convenient position for them. Bedside tables are used for feeding patients (Fig. 12). The patient's head should be slightly elevated to avoid aspiration of food. Weakened patients are fed from a spoon. The caregiver is to the right of the patient's bed. With his left hand, he raises the patient's head along with the pillow, and with his right hand brings a spoon to his mouth. Food should be given

in small portions in pureed or chopped form. For drinking and taking liquid food, special drinkers are used (Fig. 13, 14 a, b)

Fig.13.Feeding a seriously ill patient.

Fig.14 a, b.Feeding is hard sick.

When nutrition is not possible in a natural way, food is introduced into the stomach or intestines through a tube or stoma, by means of an enema. When this is not possible, then the nutrients are introduced into the rectum or parenterally (Fig. 15).

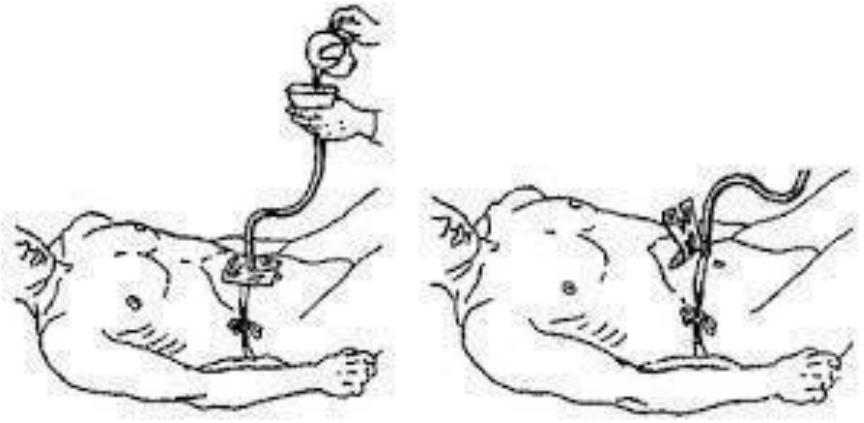


Fig.15.Feeding through a stoma.

With artificial nutrition, the daily calorie content of food should be about 2000 calories, the ratio of proteins - fats - carbohydrates: 1:1:4. The patient receives water in the form of water-salt solutions, on average 2 liters per day. Vitamins are added to food mixtures or administered parenterally. Only liquid food can be introduced through a probe or fistula: milk, broth, cream, raw eggs, melted butter, slimy or pureed vegetable soup, liquid jelly, fruit juices, tea, coffee.

Recipes for nutrient mixtures:

A. Liquid formula: 2000-2500 ml water, 250 g milk powder, 200 g sugar, 4-6 g salt.

B. Spasokukotsky mixture: 400 ml of warm milk, 2 raw eggs, 50 g of sugar, 40 ml of alcohol, a little salt.

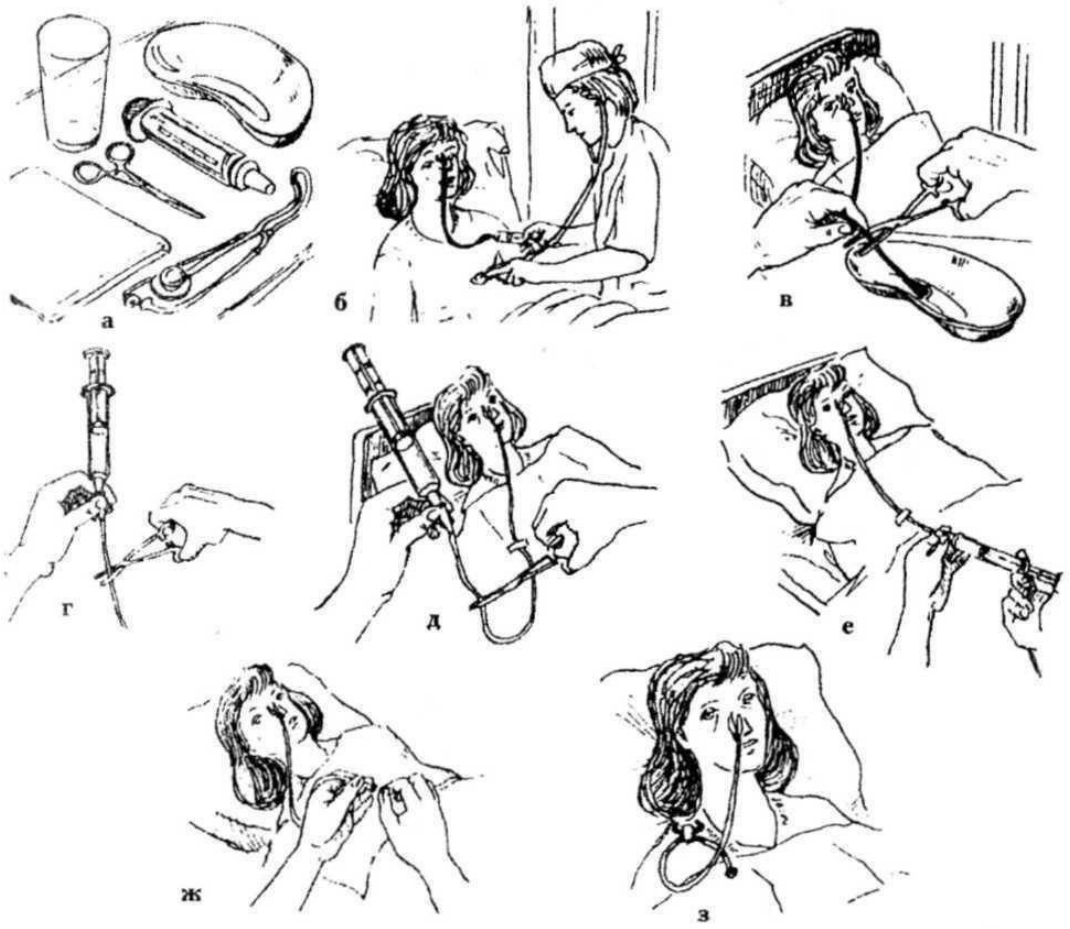
Water-salt solutions: the concentration of salts in them is the same as in human blood plasma:

A. The simplest water-salt solution of 0.85% isotonic sodium chloride solution.

B. Ringtger-Locke solution: NaCl - 9 g, KCl - 0.2 g, CaCl2 - 0.2 g, H2CO3 - 0.2 g, glucose - 1 g, H2O - 1000 l.

Patients who cannot chew on their own (with some diseases of the oral cavity) or refuse food (with mental illness) have to be fed through a gastric tube. The probe is inserted through the lower nasal passage to a depth of 15-18 cm, moving it slowly along the inner wall of the pharynx - into the esophagus. If the probe enters the larynx instead of the esophagus, then the patient starts a sharp cough, and air comes out through the probe when breathing. When the probe enters the esophagus, Janet's funnel or syringe is put on the free end of the probe. Various nutrients are poured through it (broth, cream, milk, fruit jelly, juices) in the amount of 2-3 glasses (Fig. 16 a-h).

а-з –Кормление через НГЗ шприцем Жанэ



Rice. 16.Stages of feeding a seriously ill patient through a nasogastric tube.

In cases where liquid food does not pass through the esophagus (burns or tumors of the esophagus), patients are fed through a specially created gastric fistula. Then the probe is inserted directly into the stomach.

Feeding patients can be carried out with the help of nutritional enemas.

Nutrient enema- the introduction of nutrients through the rectum. This is one of the types of artificial nutrition, since meat broth, cream, proteins, amino acids, vitamins, alcohol, isotonic sodium chloride solution, glucose solution are absorbed in the lower part of the large intestine. The volume of a nutrient enema should not exceed 200 g. They are placed after the release of the rectum with a regular enema. After that, straight

5% glucose solution or 0.85% sodium chloride solution warmed up to 36-40°C is injected into the intestine. These solutions are administered in 100-200 ml 3-4 times a day.

If the patient does not retain solutions well, then add 5-6 drops of opium tincture. However, the use of nutrient enemas is currently limited, since only water, saline, glucose solution, alcohol, and minimal amounts of amino acids are absorbed in the lower intestines. In addition, the volume of the nutrient enema should not exceed one glass. 30-40 minutes before the introduction of nutrients, the patient should be given a cleansing enema.

In severe conditions of patients, nutrient solutions can be administered parenterally, preferably intravenously. Usually, a 40% glucose solution is used, blood is transfused, plasma, plasma substitutes, hydrolysates (polyamine, Vamin, Aminosol, etc.), which contain the necessary amino acids, are injected. 2-3 liters of fluid are injected per day.

In the time of eating in the ward should be clean, the patients should be calm. If the patient falls asleep, he should be awakened. However, if the patient was injected with narcotic drugs or sleeping pills, it is impossible to wake him up.

In order to comply with all the rules of therapeutic nutrition, there must be strict control over the food received for the nutrition of patients in the hospital, and over the food brought by visitors. This is supervised by the nursing staff. The ward nurse should have a list of patients indicating the number of the treatment table received. Instructions should be posted in the admissions and hospital departments indicating the amount and type of food allowed to patients. Refrigerators must be in the rooms

nicknames for food storage; doctors and nurses need to systematically check the quality of food in refrigerators and bedside tables.

It is allowed to store soap, toothpaste, a toothbrush in a case or a cellophane bag, magazines, newspapers in bedside tables. Sweets, jam, cookies are stored on another shelf of the bedside table.

Fruit and perishable foods are stored in the refrigerator. Sour-milk, dairy products are stored no more than 2 days.

Do not store canned meat, fish products in the refrigerator.

Practical skills.

Feeding a seriously ill patient from a spoon or drinker (Fig. 14 a, b).

Indications: bed rest, severethe patient's condition.

1. Ask the patient in what sequence he prefers to take food.

2. Check the temperature of hot drinks by placing a few drops on the back of your hand. Drinks are best given through a straw.

3. Give fluids to drink when there is no solid food in the mouth.

4. Wash your hands and the patient's hands (or wipe with a damp towel), dry.

5. Cover the patient's chest or neck with a tissue or towel.

6. Put warm food on the bedside table or bedside table (you can’t put a plate on the patient’s chest!).

7. Give the patient a comfortable position (if possible) - sitting or semi-sitting.

8. Raise the patient's head with the pillow with the left hand (if the sitting position is not possible), and with the right hand bring the drinker or spoon with food to the mouth.

9. Feed the patient.

10. Wipe the lips and chin of the patient with a moistened (wet) towel, wipe with the dry end of the towel.

11. Remove the dishes, shake the crumbs off the bed, put the patient in a comfortable position.

12. Wash and dry hands.

Setting nutritional enemas.

Indications: Inability to use normal oral nutrition, diseases accompanied by obstruction of the pharynx, esophagus, cardia of the stomach.

Nutrient enemas are carried out in the same way as medicinal ones.

*Equipment:*Esmarch's irrigator; rubber, enamel or glass tank up to 2 liters with a rubber tube, at the end of which there is a tap that regulates the flow of water; clean glass or ebonite tip; wooden spatula (stick) for lubricating the tip with vaseline; rubber can with a capacity of 200 g; petrolatum; nutrient fluid. Contraindications: inflammation in the colon, bleeding hemorrhoids, rectal prolapse, gastric and intestinal bleeding.

Manipulation progress.

1. 30-40 minutes before the nutritional enema, make a cleansing enema until the intestines are completely empty.

2. Fill Esmarch's mug to 2/3 of the volume with water at room temperature.

3. Close the tap on the rubber tube.

4. Check the integrity of the tip edges, insert it into the tube and lubricate with vaseline.

5. Open the screw on the tube and release some water to fill the system.

6. Close the tap on the tube.

7. Hang Esmarch's mug on a tripod.

8. Lay the patient on a trestle bed or bed closer to the edge on the left side with legs bent and pulled up to the stomach.

9. Place an oilcloth under the buttocks, lower its free edge into a bucket.

10. Spread the buttocks and gently insert the tip into the rectum with a rotational movement.

11. Open the tap on the rubber tube.

12. Gradually introduce water into the rectum.

13. Monitor the patient's condition: in case of pain in the abdomen or urge to stool, lower Esmarch's mug to remove air from the intestines.

14. When the pain subsides, again raise the mug above the bed until almost all the liquid comes out.

15. Leave a little liquid so as not to introduce air from the mug into the intestines.

16. Carefully remove the handpiece with a twisting motion with the stopcock closed.

17. Leave the patient in the supine position for 10 minutes.

18. The walking patient should be sent to the toilet room for bowel movements.

19. The patient, who is on bed rest, put a vessel.

20. Wash the patient after emptying the bowels.

21. Cover the bedpan with oilcloth and take it to the toilet room.

22. The patient is comfortable to lay down and cover with a blanket.

23. Rinse Esmarch's mug and tip well and disinfect with a 3% solution of chloramine.

24. Warm up the injected liquid to 38-40 °C.

25. Draw heated nutrient liquid into the can until 1-2 drops of liquid appear from it.

26. Lubricate the end of the can with Vaseline.

27. Lay the patient on the left side with legs bent at the knees.

28. Having drawn the nutrient liquid into the container, remove the air until the liquid appears from the outside, gradually pressing on the container.

29. Extend the patient's buttocks.

30. Insert the end of the balloon into the rectum.

31. Gradually, under slight pressure, squeeze the liquid out of the container until it is completely empty and remove the end of the container.

32. After the enema, treat the anus area.

33. Leave the patient to lie in bed for about 1 hour. If there is an urge to stool, advise him to breathe deeply through his nose.

34. Store the tips in clean jars with cotton wool at the bottom, boil the tips before use.

Diet tables according to Pevzner.

*Diet tables*are nutrition systems that are focused on the improvement of various organs and systems of the human body through the use of the most useful food. A medical diet is a medical diet based on the correct selection of products, the use of the most optimal cooking, the calculation of the safe temperature of the consumed dishes, as well as the appropriate frequency of meals. At the beginning of the 20th century, the Soviet therapist M.I. focused on the nutrition of the patient, as a way to cure many diseases. Pevzner (Fig.17). It was he who in 1920 developed dietary tables, which are still used by domestic medical institutions.

Rice. 17.M.I. Pevzner

Under the leadership of M. Pevzner, many medical diets were developed, including hyposensitizing, anti-inflammatory, "magnesium", "potassium", etc. Research of that time in the field of dietology made it possible to make clinical nutrition an important element in the complex therapy not only of diseases of the digestive system, but also of other systems.

In the table diets of Professor M.I. Pevzner, the interests of the most seriously ill were taken into account, therefore, in the case of a milder form of the disease, with the permission of the doctor, slight deviations from the principles of a certain system of therapeutic nutrition are possible.

In all medical and preventive and sanatorium-resort institutions, a numbered diet system is used. Many of them have several variants, for example, No. 1a, 16, No. 7a, 76, 7c, 7d. Since these diets are found in hospitals and sanatoriums, we introduce you to them, keeping the numbering indicating the diseases for which they are prescribed.

If the exacerbation of the disease has passed and the patient has returned to an active lifestyle, the general principles of the diet should not change: first of all, this applies to foods that are excluded from the diet, but you can expand the methods of cooking (stew, bake after boiling), include home-canned vegetables. The lack of vitamins can be compensated by ready-made pharmaceutical forms (hexavit, dekamevit, gentavit, etc.), rosehip broth, wheat bran. All diets are prohibited

alcoholic beverages, in individual cases, the issue of their use is decided by the attending physician.

When a patient has a combination of two diseases that require dietary nutrition, nutrition is prescribed in compliance with the principles of both diets. So, with an exacerbation of peptic ulcer in a patient with diabetes mellitus, diet No. 1 is prescribed, but with the exclusion of all products that are contraindicated in sugar.

Brief description of medical tables (diets) according to M.I. Pevzner.

Diet number 0 - With difficulty eating.

Diet number 0used when it is difficult or impossible to take solid food. Such conditions are observed in the postoperative period in the gastrointestinal tract, with impaired consciousness, for example, in infectious and febrile patients. Diet No. 0 a has been developed, which provides maximum unloading and sparing of the digestive organs, prevents the effects of intestinal dyspepsia.

Diet number 1 - For diseases of the esophagus, stomach and duodenum.

Indications for Diet No. 1: Peptic ulcer of the stomach and duodenum in the stage of fading exacerbation, during the period of recovery and remission (the duration of dietary treatment is 3-5 months), acute gastritis during the recovery period and in the convalescence phase, chronic gastritis with secretory insufficiency in the acute phase, chronic gastritis with normal and increased secretion. This diet aims at moderate sparing of the stomach from mechanical, chemical and thermal aggression.

Developed diet options number 1:

Diet number 1a.This table is recommended for maximum limitation of mechanical, chemical and thermal aggression on the stomach. This diet is prescribed for exacerbation of peptic ulcer, hemorrhage, acute gastritis.

Diet number 1b.This table is for less sharp, in comparison with table No. 1a, limitation of mechanical, chemical and thermal aggression on the stomach. This diet is indicated for mild exacerbation of gastric ulcer or duodenal ulcer, in the stage of remission of this process, with chronic gastritis.

Diet number 1R(extended). The main indication for its appointment is a peptic ulcer with an unfavorable, severe course, metabolic disorders.

Diet number 2 - In diseases with secretory insufficiency of the stomach.

Indications for Diet No. 2: chronic gastritis with secretory insufficiency, acute gastritis during the recovery period, chronic enteritis and colitis after exacerbation. The effect of this table on the body is to exclude mechanical irritation of the stomach while maintaining chemical irritation to stimulate the secretory function of the stomach.

Developed diet option number 2

Diet number 2a. This diet is prescribed during the recovery period after acute colitis, enteritis, enterocolitis, gastritis, as well as chronic gastritis with secretory insufficiency and with preserved secretion. This diet aims at a slight limitation of mechanical and chemical irritants that irritate the mucous membrane of the gastrointestinal tract.

Diet number 3 - For bowel diseases with constipation syndrome

Indications for***Diet number 3***: chronic bowel disease with constipation. The diet is aimed at enhancing peristalsis, aims to empty the intestines with the inclusion of mechanical, physical and temperature stimuli in the diet. This diet is used for constipation caused by malnutrition, without pronounced signs of intestinal irritation.

Diet number 4 - For bowel diseases with diarrhea syndrome

Indications for Diet No. 4: acute diseases and exacerbation of chronic diseases of the intestines with severe diarrhea, condition after surgery on the intestines. With the help of this diet, chemical, mechanical and thermal irritations to the intestines are limited in the diet. The diet is indicated for intestinal diseases that occur with diarrhea: dysentery, gastroenteritis in the period of exacerbation, chronic colitis in the stage of exacerbation.

Diet options No. 4 have been developed:

Diet number 4a.It is used for any intestinal diseases that occur with a predominance of fermentation processes. Sharply limits the content in the diet of all substances that irritate the intestines and enhance the fermentation processes in it.

Diet number 4b. Such a diet is used during the period of exacerbation of chronic and acute intestinal diseases, with a combination of intestinal diseases with diseases of the pancreas, stomach, liver and biliary tract. This diet slightly limits the content of mechanical and chemical irritants of the receptor apparatus of the gastrointestinal tract in the diet.

***Diet number 4c*.**This diet is prescribed during the recovery period after acute intestinal diseases as a transitional table to general nutrition, as well as during the period of remission of intestinal diseases, with a combination of intestinal diseases with diseases of the pancreas, stomach, liver and biliary tract.

Diet number 4ag- Gluten-free diet. A special version of diet No. 4 is diet No. 4ag, intended for patients with celiac enteropathy, in which the body loses the ability to digest gluten (a component of grain proteins) due to the absence of a specific peptidase in the epithelium of the intestinal mucosa, as a result of which there is no cleavage of gliadin included in gluten.

Diet number 5 - For diseases of the liver, biliary tract and pancreasglands

Indications for Diet No. 5: chronic hepatitis of a progressive but benign course with signs of mild functional liver failure, chronic cholecystitis, cholelithiasis, acute hepatitis during the recovery period.

The diet is also used for chronic colitis with a tendency to constipation, chronic gastritis without severe disorders. The purpose of such a table is to unload fat and cholesterol metabolism, spare liver function, and stimulate normal bowel activity.

Developed diet options number 5:

Diet number 5a. It is used at the stage of exacerbation of diseases of the liver and biliary tract, when combined with colitis and gastritis, chronic colitis (acute hepatitis, acute cholecystitis, cholangitis, exacerbation of chronic hepatitis and cholecystitis). After liver surgery. This achieves maximum sparing of the affected organs, normalization of the functional state of the liver and other digestive organs.

***Diet number 5c*.**With prolonged exacerbations of cholecystitis, especially with severe pain resulting from an acute inflammatory process in the gallbladder and surrounding tissues.

Diet number 5p.The indication for the use of this table is chronic pancreatitis. The purpose of the application is to create the maximum functional rest of the pancreas. Mechanical sparing of the stomach, duodenum and intestines, a decrease in the reflex excitability of the gallbladder.
2 options for diet No. 5p are used. Indications forthe first version of the diet number 5p- acute pancreatitis and chronic pancreatitis in the stage of acute exacerbation. Indications forseconddiet option number 5p- acute pancreatitis in the phase of subsiding of the main manifestations of the disease, chronic pancreatitis in the phase of mild exacerbation.

Diet number 5.The indication for the use of this table is postcholecystectomy syndrome in the acute stage, accompanied by concomitant duodenitis, exacerbation of chronic gastritis, hepatitis. Purpose: maximum sparing of the liver and other digestive organs, reducing the intensity of bile secretion.

Diet No. 5f or 5l/f. Indications for the use of this table are chronic liver diseases accompanied by stagnation of bile, a condition after cholecystectomy with the presence of biliary stasis and hypomotor biliary dyskinesia. Purpose: enhancing bile secretion, improving the hepatic-intestinal circulation of bile components, providing a lipotropic effect by introducing complete proteins, polyunsaturated fatty acids into the diet.

Diet number 5p or diet P.The indication for the appointment of this table is dumping syndrome after resection of the stomach for peptic ulcer. Diet options developed
No. 5p (Diets P): pureed version, not pureed version and intermediate version.

Diet number 6 - With gout and urolithiasis with oxaluria

Indications for Diet No. 6: gout, urolithiasis with the formation of stones from uric acid (uraturia), uric acid diathesis, oxaluria. Purpose: normalization of metabolism (purines), reduction of formation of uric acid and its salts in the body, shift of urine reaction to the alkaline side, as well as normalization of all intestinal functions.
In case of exacerbation of gout, until the pain attack decreases, the variant of Diet No. 6 is recommended -***Diet number 6e.***

Diet number 7 - With kidney disease

Indications for Diet No. 7: acute diffuse glomerulonephritis, during the recovery period, chronic nephritis without exacerbation. Purpose: sparing kidney function, lowering blood pressure, reducing edema, restoring water and electrolyte balance.

Various variants of Diet No. 7 have been developed:

Diet number 7a- low protein. Indications: chronic nephritis with severe renal insufficiency. The intended purpose of such a table is the maximum sparing of the kidneys, increased urination, unloading of protein metabolism, and anti-inflammatory action.

Diet number 7b.Indications: chronic kidney disease with severe azotemia. The purpose of such a table is the maximum sparing of the kidney parenchyma, as well as an increase in the amount of urine excreted and an anti-inflammatory effect.

Diet number 7c.Indications: chronic kidney disease (glomerulonephritis, amyloidosis, kidney tuberculosis, nephropathy of pregnancy), accompanied by nephrotic syndrome. Purpose: replenishment of protein loss, reduction of hypercholesterolemia, proteinuria, reduction and elimination of edema.

Diet number 7g. Indicated in terminal states of chronic renal failure, i.e. while on hardware treatment (artificial kidney).

Diet number 7p. The indication for the use of this table is hyperuricemia, terminal renal failure, when patients are on regular hemodialysis.

Diets number 8Testimony is the increased weight of the patient: a different degree of obesity in the conditions of mental or physical labor, in the absence of complications from the digestive organs, blood circulation and other systems that require special diets. Purpose: impact on impaired metabolism, primarily lipid, to eliminate the progression of excessive fat deposition.

Variants of Diet No. 8 have been developed:

Diet number 8a. It differs from diet number 8 by a large restriction of food calorie content. This diet is prescribed for a short time.

Diet number 8 "0". The indication for the use of this table is obesity without concomitant diseases of the digestive system and the cardiovascular system. It is a stricter version of Diets No. 8 and No. 8a.

Diet number 9 - With diabetes.It is used in the treatment of diseases such as mild to moderate type 2 diabetes mellitus, joint diseases, and a large group of allergic diseases. Purpose: creation of conditions conducive to the normalization of carbohydrate metabolism, determination of the patient's tolerance to carbohydrates.

Variants of Diet No. 9 have been developed:

Trial Diet V. G. Baranovais prescribed at the first stage of therapy for diabetes mellitus until the doses of drug treatment are worked out and the level of glycemia is normalized.***Diet number 9 b*** recommended for patients with insulin-dependent diabetes mellitus receiving large doses of insulin.

Diets number 9for patients with bronchial asthma intended for patients with bronchial asthma and other allergic diseases after applicationhypoallergenicdiets .

Diet number 10 - For diseases of the cardiovascular system.

Indications for Diet No. 10: heart defects, cardiosclerosis, hypertension with mild signs of circulatory failure. Purpose: creation of the most favorable conditions for blood circulation while fully meeting the body's need for nutrients and energy. This diet has found wide application and is used in diseases of the cardiovascular system in a state of compensation and subcompensation, as well as in diseases of the kidneys.

Developed options for diet number 10:

Diet number 10a.Indications: diseases of the cardiovascular system, accompanied by circulatory failure stage II-III. The intended purpose of such a table is the maximum unloading of the cardiovascular system in case of its diseases in a state of decompensation.

Diet number 10b.Indications for the use of this dietary table are rheumatism with a low degree of activity, occurring without circulatory disorders, as well as rheumatism in the attenuation phase.

Diet number 10s. Indications: atherosclerosis of coronary, cerebral and peripheral vessels, aortic atherosclerosis, atherosclerotic cardiosclerosis, coronary heart disease. Purpose: slowing down the progression of the atherosclerotic process, restoring impaired lipid metabolism and general metabolism.

Diet number 10r. The indication for the use of this table is rheumatoid arthritis.***Diet number 10g.***The indication for the use of this table is essential arterial hypertension.

Diet number 10i.Indications: myocardial infarction. Purpose: acceleration of reparative processes in the myocardium, improvement of the function of the circulatory apparatus as a whole, normalization of the motor function of the intestine.

Diet number 11 - With exhaustion, anemia, tuberculosis.e

Indications for Diet No. 11: pulmonary tuberculosis, recovery period after a long severe illness, exhaustion, anemia. Purpose: full provision of the body's need for protein, fat, carbohydrates and essential nutritional factors, activation of the body's immunobiological defense, increase in reparative processes in the affected organ, strengthening the body's defenses during recovery and increasing its resistance to acute and chronic infections.

***Developed*Diet options number 11**taking into account the localization and nature of the tuberculous process, the state of the digestive system, the presence of complications.

Also exists***Diet No. 11o*-** with burn disease. The diet is adequate to compensate for the protein and energy needs of the body in case of superficial burns with an area of no more than 10–20% of the body surface.

Diet number 12 - In diseases of the nervous system

Indications for Diet No. 12: diseases of the nervous system, accompanied by its increased excitability. The intended purpose of such a table is a sedative effect on the central nervous system.

At present, it is practically not prescribed, since, depending on the nature of the disease of the nervous system and concomitant disorders in other body systems, various options for diets No. 5, 10, 15 are recommended.

Diet number 13 - In infectious diseases

Indications for Diet No. 13: acute infectious diseases, condition after extensive operations (but not on the gastrointestinal tract). Purpose: activation of regenerative-adaptive mechanisms and reparative processes in tissues. The diet is aimed at sparing the digestive organs, as well as the speedy removal of microbial toxins from the body.

***Diet number 14 - With urolithiasis with phosphaturia*.**

Indications for Diet No. 14: urolithiasis with excretion of phosphorus-calcium salts in urine sediment (phosphaturia). Purpose: creation of favorable conditions that prevent the loss of phosphorus-calcium salts in the urine and promote their excretion from the body (promoting a shift in the acid-base balance towards acidity).

***Diet No. 15 - General diet for patients without digestive disordersstems*.**

Indications for Diet No. 15: diseases in which there is no disorder of the function of the digestive system and in which a special diet is not required. Purpose: providing good nutrition in a medical institution; in the absence of indications for the appointment of special dietary treatment. A rational diet is intended for nutrition of practically healthy people during the period of recovery from various common diseases.

Standard diets usedin stationary medical institutions of the Russian Federation

According to the "Instructions for the organization of clinical nutrition in medical and preventive institutions" Order of the Ministry of Health of the Russian Federation No. 330 dated August 5, 2003 "On measures to improve clinical nutrition in medical institutions of the Russian Federation" - lactic institutions in Russia use standard diets.

***Basic Standard Diet*.**

Indications for the use of the Basic variant of the standard diet: Chronic gastritis, peptic ulcer of the stomach and duodenum in remission. Chronic bowel disease with a predominance of IBS with predominant constipation.

Acute cholecystitis and hepatitis in the recovery stage. Chronic hepatitis with mild signs of functional liver failure. Chronic cholecystitis, gallstone disease. Gout, uric acid diathesis, nephrolithiasis, hyperuricemia, phosphaturia. Type II diabetes mellitus without concomitant overweight or obesity. Diseases of the cardiovascular system with a mild violation of blood circulation. Hypertonic disease. IHD, atherosclerosis of the coronary arteries of the heart, cerebral, peripheral vessels. Acute infectious diseases. Feverish conditions.

This diet option replaced the following standard diets according to M.I. Pevzner: No. 1, 2, 3, 5, 6, 7, 8, 9, 13, 14, 15.

Variant of the standard diet with mechanical and chemical sparing Indications for use*Variant of the standard diet with mechanical and chemical sparing*: Acute gastritis, chronic gastritis with preserved and high acidity in the phase of mild exacerbation. Peptic ulcer of the stomach and duodenum in the stage of exacerbation and unstable remission. Gastroesophageal reflux disease.

Violations of the function of the chewing apparatus. Acute pancreatitis, fading stage

exacerbations. Chronic pancreatitis, severe exacerbation. The recovery period after acute infections and after operations (not on the internal organs).

This diet option replaced the following standard diets according to M.I. Pevzner: No. 1b, 4b, 4c, 5p (1st option).

High protein diet option (high protein diet)diet).

Indications for the use of the variant of the standard diet with a high protein content: After gastric resection for peptic ulcer in 2-4 months in the presence of dumping syndrome, cholecystitis, hepatitis. Chronic enteritis in the presence of a pronounced violation of the functional state of the digestive organs. Celiac enteropathy. Chronic pancreatitis in remission. Chronic glomerulonephritis of the nephrotic type in the stage of fading exacerbation without impaired nitrogen excretion of the kidneys. Diabetes mellitus type 1 and 2 without concomitant obesity and impaired nitrogen excretion of the kidneys. Rheumatism with a low degree of activity of the process with a protracted course of the disease without circulatory disorders. Rheumatism in the stage of fading exacerbation. Pulmonary tuberculosis. Suppurative processes. Anemia of various etiologies. Burn disease.

This diet option replaced the following standard diets according to M.I. Pevzner: No. 4e, 4ag, 5p (variant 2), 7c, 7d, 9b, 10b, 11, 1R.

A low-protein version of the standard dietdiet).

Indications for the use of the variant of the standard diet with a reduced amount of protein: chronic glomerulonephritis with sharply and moderately pronounced violation of the nitrogen-excreting function of the kidneys, severe and moderately pronounced azotemia. This diet option replaced the following standard diets according to M.I. Pevzner: No. 7b, 7a.

A reduced-calorie version of the standard diet (low-calorie diet)eta)

Indications for the use of the variant of the standard diet with a reduced calorie content: Various degrees of alimentary obesity in the absence of severe complications from the digestive system, circulatory system and other diseases requiring the appointment of special diets. Type 2 diabetes mellitus with obesity. Cardiovascular disease in the presence of excess body weight.

This diet option replaced the following standard diets according to M.I. Pevzner:

No. 8, 8a, 80, 9a, 10c.

Specialized diets

In medical practice, diets are used that are not included in the nomenclature of therapeutic diets according to M.I. Pevzner and the “Instructions for the organization of therapeutic nutrition in medical and preventive institutions”.

Hypoallergenic diet.Diet

for pleurisy.

Diet after operations on the esophagus.

The Carrel Diet.

potassium diet.

magnesium diet.

Unloading diets.

Very popular all over the world are the so-called "Fashion diets" offered by various authors (doctors, artists, writers, etc.) to achieve any super-tasks. "Fashion diets" are designed to reduce body weight, prolong life, improve health. Most of these diets are not physiological, deficient in many nutrients and are not recognized by official medicine.

Control questions for topic number 5.

1. The value of nutrition in the treatment of patients.
2. The daily requirement of a healthy person for nutrients.
3. Organization of nutrition of patients in medical institutions.
4. Methods of feeding patients.
5. Methods of artificial nutrition.
6. Basic dietary tables.
7. Describe the technique of feeding a seriously ill patient with a spoon.
8. What are the indications for giving a nutritional enema to a patient.
9. Describe the technique of administering a nutrient enema.

Topic number 6.

The simplest physiotherapy.

A. Ice pack.

B. Warm compresses. V.
Mustard plasters.
G. Warmer.

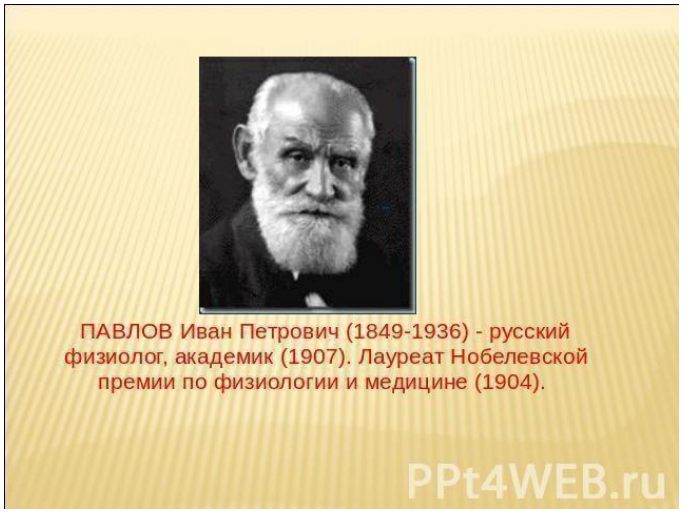
The student needs to be aware of:

1. The mechanism of action of the simplest physiotherapy.
2. Indications and contraindications for setting up an ice pack.
3. Ice pack technique.
4. Indications and contraindications for the appointment of warming compresses.
5. Technique applications warm compresses.
6. Indications and contraindications for the appointment of mustard plasters.
7. Techniquecarrying out the setting of mustard plasters.
8. Indications, contraindications to the appointment of a heating pad.
9. Heating pad technique.
10. Indications and contraindications for the appointment of therapeutic baths.
11. Conditions for therapeutic baths.

The student must have the skills to:

1. Ice pack settings.
2. Performances of mustard plasters.
3. Make a heating pad.

The autonomic nervous system controls the activity of all organs, involved in the implementation of plant functions of the body (nutrition, respiration, excretion, reproduction, circulation of fluids), as well as trophic innervation (I.P. Pavlov) (Fig. 1).

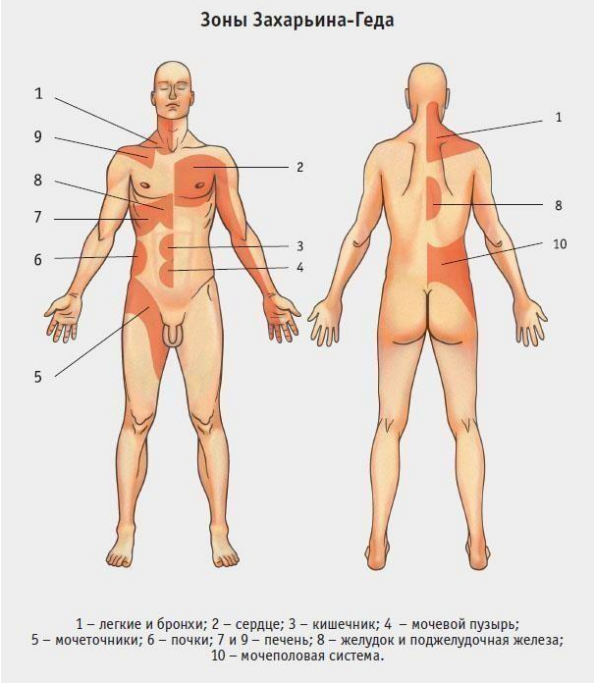


Rice. 1. I.P. Pavlov

The connection of the skin with the internal organs was established by professors G.A. Zakharyin (1889) (Fig. 2) and Ged (H. Head, 1893).

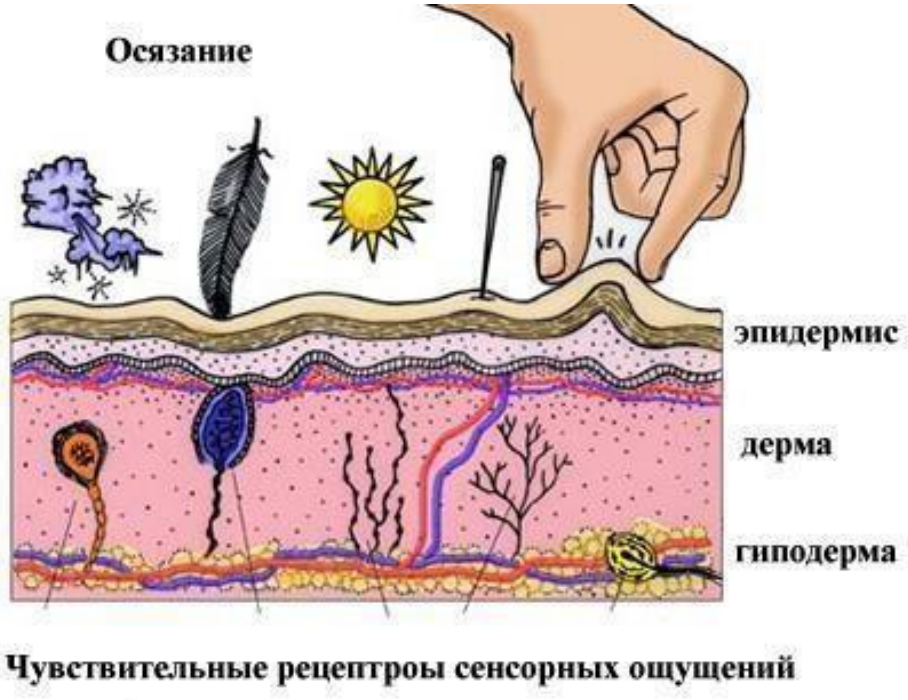
Fig.2. G.A. Zakharyin.

They showed that in diseases of the internal organs, in certain areas of the skin surface belonging to the same-named segments of the spinal cord, there are referred pains (Zakharyin-Ged zones), accompanied by skin hyperesthesia. Doctors use influences on the active points of these zones to normalize the functions of internal organs (Fig. 3).



Rice. 3. Zakharyin-Ged zones.

Human skin is equipped with a large number of nerve endings that perceive a variety of environmental influences (Fig. 4). Various physical factors (cold, heat, mechanical impact, pressure, etc.) when exposed to the skin of a person or a certain part of his body are able to cause a therapeutic effect in diseases of organs located below the place of manipulation. Such a therapeutic effect on the skin in order to change the functional state of the underlying organs and systems is called physiotherapeutic procedures.



Rice. 4. Skin receptors.

Physiotherapeutic procedures refer to measures of influence on blood circulation. Heat and cold are used to promote tissue repair. When the nerve receptors are irritated by heat, the blood vessels expand, which improves the blood supply to the damaged part of the body. Thermal procedures have an antispastic, analgesic effect. The effect of heat on muscles during prolonged exposure is manifested by relaxation of their tone and increased fatigue. The reaction to exposure to heat does not extend to the entire body, but only affects the underlying tissues.

The application of heat can also cause adverse local effects (burns, swelling) (Fig. 5).

Fig.5. Complication when using a heating pad.

The primary effects of cold application are vasoconstriction and metabolic slowdown (Figure 6). The body's response to cold consists of three phases:

- in the first phase, vasoconstriction occurs, the skin turns pale, becomes cold to the touch, blood moves to the internal organs, pain decreases;
- the second phase occurs after 1 minute or less, when vasodilation occurs, the skin becomes pink-red and warm to the touch;
- if the action of cold is continued, the third phase sets in, when the skin becomes purple-red, cyanotic, cold and the excitability of the nerves decreases, “goose bumps” appear.

Fig.6.Applying an ice pack for bruises.

Prolonged exposure to cold causes circulatory problems as well as tissue damage due to lack of oxygen.

The application of heat or cold can cause burns or tissue damage in the following categories of patients:

1. Elderly patients due to decreased pain or temperature sensitivity.

2. Small children: their skin is very delicate, and they cannot always express their complaints in words.

3. Patients with peripheral vascular disease, such as diabetes mellitus, or peripheral arteriosclerosis. In such patients, pain and temperature sensitivity of the skin is reduced, which further disrupts blood flow in the affected areas.

4. Patients with lesions of the spinal cord, with confused consciousness or in an unconscious state due to the inability to perceive pain or temperature stimuli.

ice pack It is a flat rubber bag with a wide opening and a lid, which is filled with crushed pieces of ice before use. In modern conditions, the industry produces various configurations of medical ice containers, as well as chemical

packages that are enough to withstand a certain time in the freezer before use (Fig. 7)

Fig.7.Ice pack.

Compress is a special therapeutic multi-layer bandage. Most often in practice, wet warming compresses are used. Warming compresses are water, water-alcohol (half-alcohol - salicylic, camphor, ethyl alcohol is added to water), oily, medicinal. A wet warm compress is used as a distraction and absorbent. Between the skin and the wet tissue of the compress, a layer of water vapor is formed, warmed to body temperature. A warm compress leads to a uniform and prolonged expansion of blood vessels, which increases blood flow to the tissues, there is a decrease in venous stasis, and, consequently, swelling of the tissues decreases. As a result of local warming and reflex influences, active tissue hyperemia sets in, with which the therapeutic effect is associated.

mustard plastersare pieces of thick paper measuring approximately 8 X 12.5 cm, covered with a thin layer of powder of defatted mustard seeds or bags of compressed filter paper, between

which layers contain mustard powder (Fig. 8)

Rice. eight.mustard plasters

currentthe substance of mustard plasters is allylisothiocyanate, the so-called "essential mustard (allylic) oil", which is part of mustard and is released from it at a temperature of 40-45°C. This substance causes irritation of skin receptors and its hyperemia, leads to the expansion of blood vessels located deeper than the internal organs, due to which an analgesic effect is achieved, and the resorption of some inflammatory processes is accelerated.

> On every tenth mustard plaster, the expiration date of the entire batch is indicated.

They should be stored in a dry, dark place. Usablemustard plaster has a sharp smell of mustard oil and does not crumble. Before using it, you need to check these qualities.

With the wrongstorage mustard loses its properties.

Note!*Before using mustard plasters, check their expiration date, suitability for use: mustard should not crumble from the mustard plaster, the specificmustard smell.*

Practicalskills.

Ice pack setting.

*Indications:*acute inflammation in the abdominal cavity; bleeding; in traumatology in the first hours and days with bruises, fractures,

dislocations; periodfever; insect bites; mastitis; postoperative period; concussion.

*Contraindications to the use of cold:*chronic inflammatory processes, skin diseases.

*Equipment:*ice pack, towel (diaper), tray with ice cubes (Fig. 8).

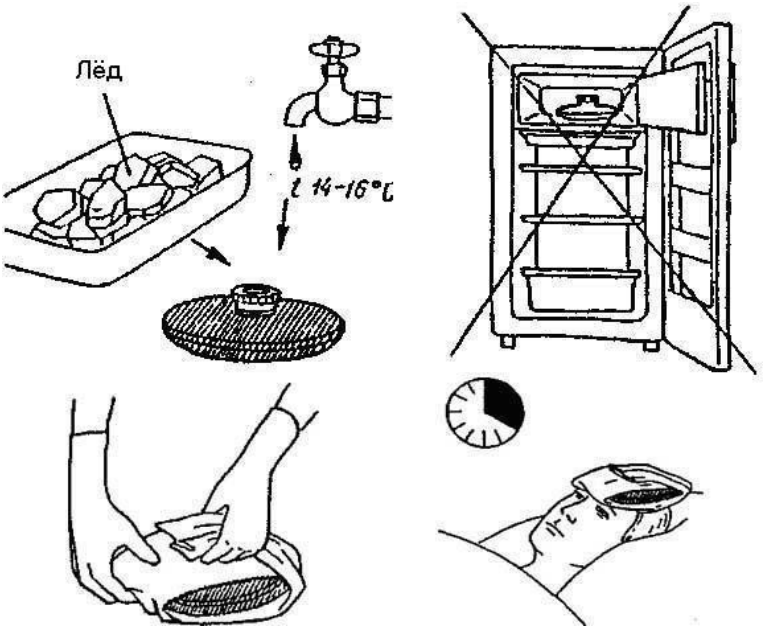


Fig.8.Applying an ice pack.

Manipulation progress:

1. Clarify whether the patient had to meet with this procedure:

- if so, on what occasion and how did he endure it;
- if not, it is necessary to explain to the patient the essence of the procedure.

2. Obtain patient consent for the procedure.

3. Wash the hands.

4. Fill a wide-mouthed rubber bladder halfway with ice cubes prepared in the freezer and cover with cold water.

Note:it is impossible to freeze the water poured into the bubble in the freezer, since the surface of the formed ice conglomerate is large, which can lead to hypothermia of the body area, and sometimes to frostbite.

5. Place an ice pack on a horizontal surface and screw on the lid.

6. Wrap an ice pack with a four-fold diaper and put it on the desired area of the body for 20 minutes.

Note:the bubble can be kept for a long time, but every 20 minutes you need to take a break for 10-15 minutes. Considering that the ice pack provides more pronounced cooling than a cold compress, in order to avoid hypothermia or pain from pressure, it is advisable not to apply the ice pack to the body, but to hang it (above the head, stomach, etc.) every taking 10 minute breaks for half an hour.

7. Drain the water as it melts in the bubble and add pieces of ice.

8. At the end of the procedure, drain the water from the bubble.

9. Ask about the patient's well-being.

10. Disinfect the bubble, then wash it with water and dry it.

11. Wash the hands.

Medical documentation.

BUT. Indicate the type and duration of the cold procedure, as well as the area of the body subjected to it.

B. Describe the state of blood circulation and the general appearance of the skin on the cooled area of the body before, during and after the procedure.

AT. Assess the patient's response to the procedure: tolerability, pain relief, reduction of swelling or bleeding.

Instructions for the nurse.

BUT. During cold treatment, evaluate the condition of the skin on the area being cooled at least once every 10 minutes.

B. Palpate the peripheral pulse distal to the area to be cooled. If cyanosis and spots appear on the skin or the patient complains of numbness, it is necessary to immediately inform the doctor.

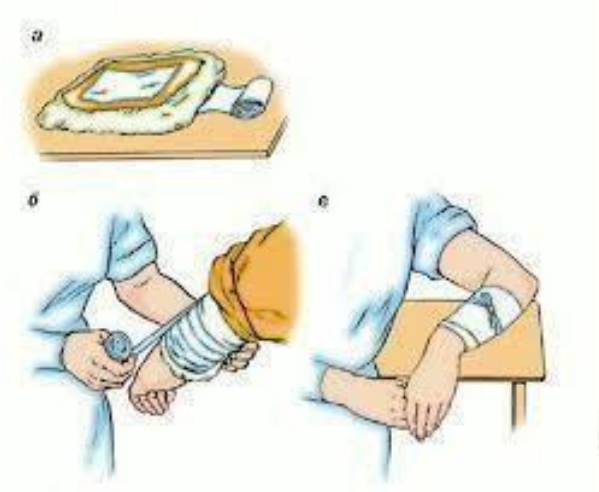
AT. Keep the patient from chilling by exposing only the part of the body to be cooled, covering the rest with a bath sheet.

Setting a warming compress (Fig. 9a, b, c; 10).

*Indications:*local inflammatory processes: skin, subcutaneous tissue, infiltrates after injections, phlebitis, lymphadenitis, etc.; diseases of the joints and periarticular tissues; inflammatory processes of the larynx; hematomas; bruises (one day after the injury); catarrhal otitis.

*Contraindications:*violation of the integrity of the skin; bruises in the first hours and days; high fever; allergic and purulent rashes: dermatitis, pyoderma, furunculosis; neoplasms.

*Equipment:*compress (waxed) paper or polyethylene film, cotton wool, bandage, gauze folded in eight layers (Fig. 9a), room temperature water (22-25 ° C), or ethyl alcohol 40-45% or camphor oil, kidney-shaped tray, scissors.



Rice. 9.Warm compress.

Рис. 2. Согревающий компресс на грудную клетку: *1* — вата; *2* — клеенка; *3* — полотно.

Rice. ten.Warm compress.

Manipulation progress.

1. Clarify whether the patient had to meet with this procedure:

- if so, on what occasion and how did he endure it;
- if not, it is necessary to explain to the patient the essence of the procedure.

2. Obtain patient consent for the procedure.

3. Wash the hands.

4. Cut off with scissors the necessary (depending on the area of application) piece of the compress bandage and fold it into eight layers.

5. Cut out a piece of compress paper: around the perimeter 2 cm larger than the napkin.

6. Prepare a piece of cotton around the perimeter 2 cm more than the compress paper.

7. Fold the layers for the compress on the table, starting with the outer layer: at the bottom

- cotton wool, then - compress paper (Fig. 9a).

8. Pour camphor oil or water at room temperature into a beaker, moisten a napkin, wring it out slightly and put it on top of the compress paper.

Note:when putting the compress on the ear, cut the napkin and compress paper in the center.

9. Place all layers of the compress in sequence (a napkin - compress paper - a layer of cotton wool) on the desired area of the body. You can not apply a compress to the skin, smeared with iodine.

10. Fix the compress with a bandage in accordance with the requirements of desmurgy so that it fits snugly against the skin, but does not restrict movement (Fig. 9 b, c).

Note:when applying a compress to the gluteal region, it is better to fix it with adhesive tape or medical glue.

11. Remind the patient about the time to apply the compress:

- a water compress is placed for 8-10 hours;

- semi-alcoholic - for 4-6 hours;

- oil - for 24 hours.

12. Wash the hands.

13. 1.5 - 2 hours after applying the compress with your finger, without removing the bandage, check the degree of moisture content of the napkin. Strengthen the compress with a bandage.

14. Wash the hands.

15. Remove the compress after the prescribed time.

16. Wipe the skin with water or alcohol, followed by drying with a towel.

17. Ask about the patient's well-being.

18. Wash the hands.

Medical documentation.

1. Specify the duration of the compress, the start and end time, the type of compress, the part of the body subjected to heat treatment.

2. Describe the condition of the patient's skin before and after the thermal procedure.

3. Describe the patient's reaction to the thermal procedure.

Instructions for the nurse.

1. When carrying out a thermal procedure, it must be remembered that the nurse is obliged to ensure the safety of the patient.

2. Each thermal procedure must be carried out on time.

3. Report any soreness or severe redness of the skin after the procedure to your doctor.

4. Be particularly vigilant in patients at high risk for burns or other skin damage. During the procedure, the nurse should be near the patient, especially if he is motionless, or suffers from impaired pain or temperature sensitivity. The nurse should check the condition of the skin of such patients every 5 minutes.

5. Within reach for the patient, it is necessary to install a nurse call button.

STATEMENT OF MUSTARD STICKS.

*Target***:***therapeutic: reflex expansion of blood vessels in deeply located organs and tissues, resorption of inflammatory processes, reductionpain relief, warming effect.*
*Necessary condition***:**manipulation is carried out in the ward.

***Indications*:**hypertensive crisis, angina pectoris, bronchitis during recovery, pneumonia in the resorption phase, intercostal neuralgia, myositis.

Places for setting mustard plasters (Fig. 10):

1. Neck (acute rhinitis, hypertensive crisis).
2. The upper part of the sternum (acute tracheitis, angina pectoris).
3. Interscapular region and under the shoulder blades (bronchitis, pneumonia).
4. Calf muscles (effective for acute inflammation of the upper respiratoryny ways).

Rice. 10. Places for setting mustard plasters.

*Remember: you must avoid settingmustard plasters*on the nipples, mammary glands, spine, birthmarks, heart area
(with the exception of direct indications - pain in the region of the heart).

Contraindications:

1. Skin sensitivity disorders.

2. Pulmonary bleeding.

3. Diseases and lesions of the skin in this area (pyoderma, neurodermatitis,eczema).

4. An increase in body temperature above 38 ° C.

5. Malignant neoplasms.

6. Blood diseases.

7. Bronchial asthma.

Equipment: mustard plasters, soap, towel, water thermometer for measuring water temperature, mustard plasters, water container, hygroscopic paper or cloth, nankins, tray for used material.

*Remember:*water should not be higher than 40-45 ° C, since mustard oil loses its properties at a higher temperature, paper with printing ink and waterproof paper cannot be used.

Manipulation progress.

1. Explain the procedure to the patient.

2. Wash your hands with soap and dry with an individual towel.

3. Remove the shirt from the patient or lift it up to the neck.

4. Invite the patient to lie on his stomach, turn his head to the side, put his hair under a scarf or cover with a towel.

5. Pour water into the tray at a temperature of 40-45 ° C, immerse the mustard plaster in water for 1-3 seconds.

6. Take it out of the water, shake off the water slightly, lay it with mustard down on the place prescribed by the doctor. With increased sensitive skin, mustard plasters are applied with the reverse side or through paper, cloth. In this case, only the thermal effect is preserved.

7. Press the mustard plaster against the patient's skin.

8. Cover the patient first with a towel or a sheet folded twice or thrice, and on top with a blanket.

9. Clarify the patient's sensations and determine the degree of hyperemia in 2-5 minutes.

10. Leave the mustard plasters for 5-15 minutes, taking into account the individual sensitivity of the patient to mustard (until persistent hyperemia appears).

11. Remove the mustard plasters and discard them in the waste tray,wipe the patient's skin with a towel, remove mustard residue, cover him warmly.

Control questions for topic number 6.

1. Mechanismactions of the simplest physiotherapy.
2. Effect on circulation of heat.
3. Effect on the circulation of cold.
4. Indications and contraindications for the use of an ice pack.
5. Ice pack technique.
6. Indications, contraindications for the use of compresses.
7. Warm compress technique.
8. Indications, contraindications for the use of mustard plasters.
9. Technique for setting mustard plasters

Topic number 7.

The simplest manipulations.

BUT. Enemas.

B.Gas tube.

The student needs to be aware of:

1. Types of enemas (cleansing, siphon, drip, radiopaque, medicinal, nutritional).
2. Contraindications and possible complications in the formulation of various types of enemas.

The student must have the skills to:

1. Proper training to administering an enema.
2. Setting an enema, regardless of the destination.

3. Installation of a gas outlet pipe.

Enema- a diagnostic and treatment procedure, which is a method of introducing liquid substances into the lower segment of the colon.

Therapeutic enemasare used for the following purposes:

1) for mechanical emptying of the colon (cleansing enemas);

2) for washing the colon (siphon enemas), medicinal effects on the colon;

3) for the introduction of water, medicines, nutrients into the body through the intestines (medicinal, nutritional enemas).

Diagnostic enemasallow to determine the capacity of the colon, to introduce a contrast agent for X-ray examination of the colon. There are two ways to introduce fluid into the rectum: from a reservoir located above body level - hydraulic *way*; injection with the help of appropriate devices - injection method.

To perform a hydraulic (cleansing) enema, you must have the following:

1) a reservoir for the injected fluid (Esmarch's mug, glass funnel, rubber mug) with a capacity of 1 to 5 liters (Fig. 1, 2);

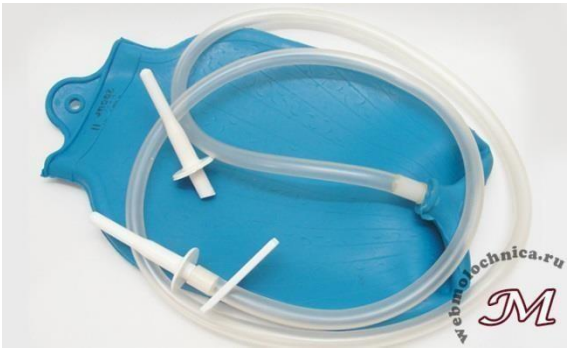


Fig.1.Esmarch's irrigator.

Rice. 2.Esmarch's mug in a modern modification.

2) a rubber tube that conducts liquid, about 1.5 meters long, at least 1 cm in diameter;

3) an intestinal tip inserted into the lumen of the rectum, made of different materials (thick-walled rubber, ebonite, plastic), at least 15 cm long with a rounded intestinal end (Fig. 3, 4);

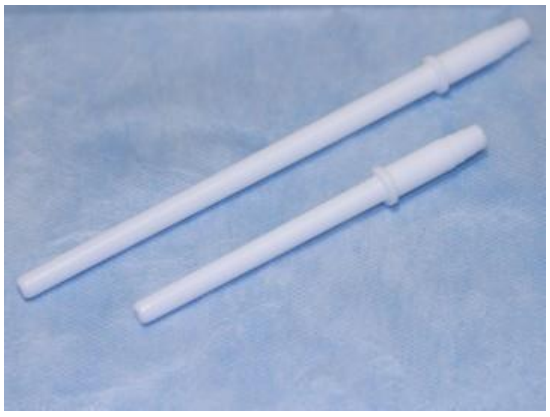


Fig.3.Disposabletips for enemas.

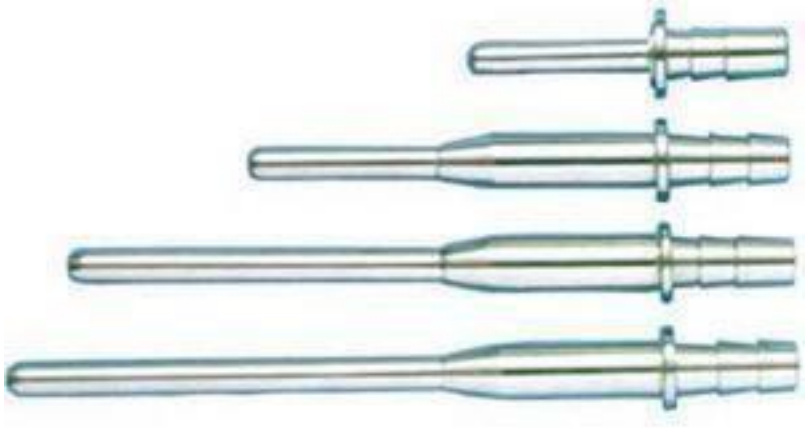


Fig.4.**Tips for Esmarch mugs.**

4) thermometer for measuring liquid temperature.

A special connecting tube with a tap is placed between the rubber tube and the tip, designed to regulate the amount of fluid injected (you can use a clamp that regulates the diameter of the tube lumen). On average, for an adult, they take 1-2 liters of boiled water at a temperature of 12 to 42 C, depending on the type of constipation: with atonic constipation - a lower temperature, with spastic - a higher one, which has a relaxing effect. Usually they take water at a temperature of 37 ° C, to enhance the action add a soap solution - 1 tbsp. a spoonful of soap shavings + 2 tbsp. tablespoons of glycerin or vegetable oil.

Cleansing enemasapply in the following cases:

1) with constipation and stool retention of various origins;
2) with poisoning of external and internal origin;
3) before operations, childbirth and X-ray examination of the abdominal cavity and small pelvis, as well as before the use of medicinal, drip and nutritional enemas.

*Contraindications*to the use of cleansing enemas are:

1) acute inflammatory, purulent and ulcerative processes in the anus, in particular acute appendicitis;
2) inflammation of the peritoneum;
3) gastric and intestinal bleeding, in particular bleeding hemorrhoids, decaying rectal cancer;
4) the first days after surgery on the pelvic and abdominal organs;
5) anal fissure and its gaping, as well as prolapse of the rectum. The liquid injected by the enema has a mechanical, thermal, chemical

mic effect both on peristalsis and emptying, and on feces, loosening and facilitating excretion.

Before using an enema, other methods of bowel stimulation should be tried. Teach the patient during the act of defecation to sit with the hips pressed to the stomach, allocate enough time for the act of defecation (while ensuring privacy), eat a large amount of plant fibers and drink enough fluids, do physical exercises.

Siphon enemasare the optimal method for a quick bowel movement. Bowel lavage is based on the principle of communicating vessels. One of these vessels is the intestine, and the other is a funnel inserted into the free end of a rubber tube, the other end of which is inserted into the rectum. To set up such an enema, you must have: a sterilized rubber tube 1.5 m long and 1.5 cm in diameter, at one end of which a funnel with a capacity of 0.5 l is inserted, a tank with 5-10 l of disinfectant liquid (weak potassium permanganate solution) or boiled water *temperature 38°C, as well as a bucket for draining water.*

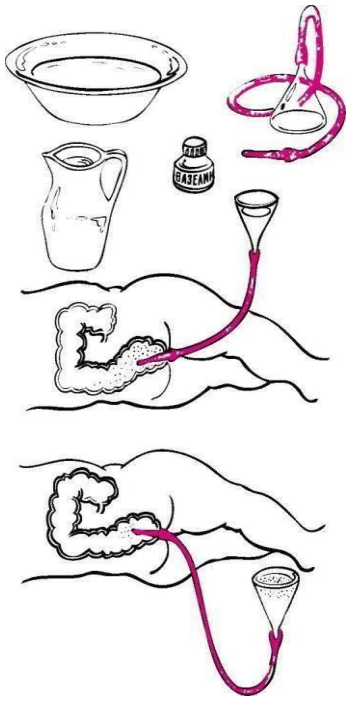


Fig.5.Carrying out a siphon enema.

To implement the siphon principle, the funnel filled with liquid must be raised 0.5 m above the patient's body. After the liquid passes into the intestine (the level of decreasing water reaches the constriction of the funnel), the funnel is lowered below the level of the patient's body and wait until it is filled with the contents of the intestine. The ups and downs of the funnel alternate.

With each rise of the funnel, liquid is poured into it. In this way, bowel lavage is carried out until clear water comes out. In addition, care must be taken to ensure that no air enters the tube, which will violate the implementation of the siphon principle. If air enters the tube, the procedure must be restarted.

The amount of liquid released must be greater than the volume injected.

Injection enemas are performed using special rubber cylinders with a capacity of 200-250 ml with a dense intestinal tip or a Janet syringe; currently, complex injection devices (Colongidromat) are also used (Fig. 6, 7).

Fig.6.Bowel cleanser.

Laxative enemas(oily and hypertonic) are used in cases where the introduction of large amounts of liquid is accompanied by violent peristalsis, is undesirable or ineffective. For hypertensive *enemas*usually use 5-10% sodium chloride solution, 20-30% magnesium sulfate solution or sodium sulfate. 100-200 ml of a warm solution is injected into the rectum using a rubber balloon - "pears", which come in different sizes and modifications. Oil enemas are used for persistent constipation. Vegetable oils are used for them: sunflower, hemp,

Fig.7.Colon cleansing room.

olive, vaseline For one enema, take 50-100 ml of oil heated to 37-38 ° C. Oil is usually injected using a rubber balloon, syringe or catheter, moving it into the rectum by 10 cm. The oil spreads along the intestinal wall, envelops the feces, relaxes the intestinal muscles and promotes the excretion of feces. To prevent the oil from flowing out of the rectum on its own, the patient should lie quietly for 10-15 minutes.

Medicinal enemas.If the introduction of drugs through the mouth is not possible or contraindicated, they can be administered through the rectum, where they are absorbed and quickly enter the bloodstream through the hemorrhoidal veins, bypassing the liver. Medicinal enemas are divided into enemas of local action and general. The former are used for inflammatory processes in the large intestine, and the latter for the introduction of drugs or nutrients into the body.

For 30-40 minutes, a cleansing enema is given, and only after the bowel has been emptied, the medicine is administered. Medicinal enemas are basically microclysters, since their content should not exceed 50-100 ml. Medicinal substances are drawn into a 20-gram syringe, Jeanne's syringe or into a rubber can with a capacity of 50 to 100 g (Fig. 8, 9).

Fig.8.Conducting a medicinal enema.

Fig.9.Capacitiesfor a medicinal enema.

The temperature of the medicinal substance should be at least 40°C, since at a lower temperature, there is an urge to defecate, and the medicine does not have time to be absorbed. In order not to cause mechanical, thermal, chemical irritation of the intestine, it is necessary to inject the drug into it in a relatively low concentration, diluted in a warm isotonic solution of sodium chloride or with an enveloping substance (50 g of starch decoction). Most often, painkillers, sedatives, hypnotics are administered in microclysters.

Nutrient enemasused in cases where it is impossible to introduce nutrients through the mouth. This is one of the types of artificial nutrition. However, the use of nutrient enemas is very limited, since in the lower segment of the large intestine, a limited amount of nutrients is absorbed (water, isotonic sodium chloride solution, glucose and alcohol solutions, see topic No. 5).

Gas tubeused for therapeutic purposes, most often in case of flatulence of various origins (Fig. 10, 11, 12).

Fig.10.Neonatal gas tube

Rice. 11. Gas tube for adults.

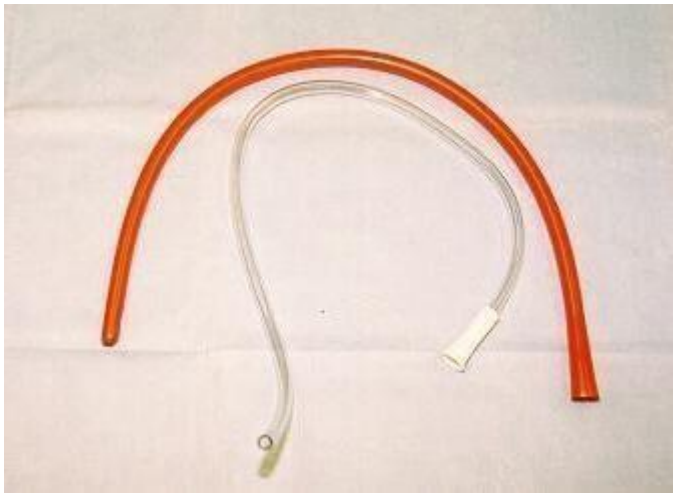


Fig.12.Gas tubes.

Contraindications to the use of a gas outlet tube:

a) cracks in the anus;

b) dilated hemorrhoidal veins in the acute stage;

c) rectal prolapse;

d) inflammatory processes of the rectum and sigmoid colon; e)

recent colorectal surgery;

f) malignancy (or other diseases) of the perianal region; g)

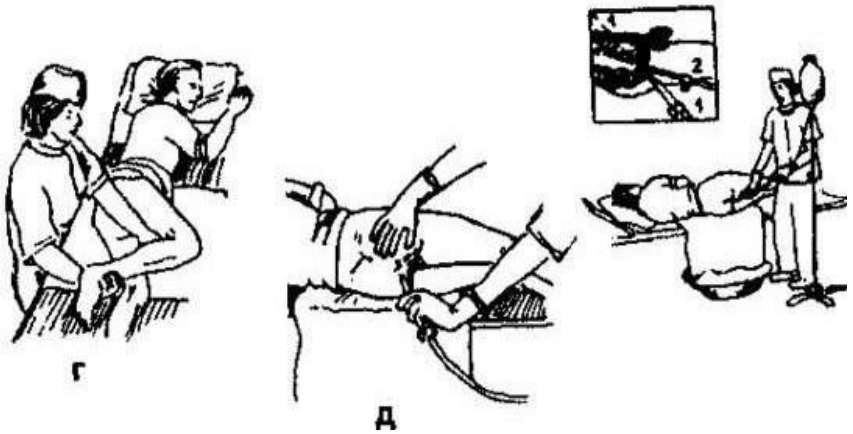
thrombocytopenia.

Intestinal bloating can occur after anesthesia, the use of narcotic drugs, with a sharp change in the nature of food, as well as with a decrease in human motor activity. Intestinal distension after surgery is very painful for patients.

Practical skills.

Conducting an enema.

*Equipment:*enema cup (or Esmarch cup), rubber tube with clamp, water thermometer, petroleum jelly, oilcloth, bath towel, toilet paper, vessel, disposable medical gloves, soft washcloth, plain towel, basin, tripod, appropriate enema solution.



Rice. 13.

The course of manipulation (Fig. 13.a, b, c, d, e).

1. Help the patient to take a position - lying on the left side with the right leg bent. Put the patient, who is unlikely to be able to hold the enema, on the vessel, after placing an oilcloth under it (in this case, the patient should lie on his back).
2. Oilcloth is also laid between the hips and under the buttocks of the patient.
3. Cover the patient with a bath sheet in such a way that only the buttocks remain open, put the vessel on the bed next to the patient.
4. Wash your hands, put on clean gloves, and pour the enema solution into the enema cup.
5. Open the clamp on the rubber tube and pour a small amount of liquid from the enema cup into the vessel. Reattach the clamp to the rubber tube and lubricate the tip of the tube (rectal catheter) with petroleum jelly.
6. Spread the patient's buttocks so that the anus is visible.
7. Ask the patient to take a deep breath and at this time insert the rectal catheter (tip) into the anus towards the navel.
8. Remove the clamp from the rubber tube so that the liquid from the enema cup slowly flows through the tube into the rectum. When using a disposable enema, squeeze the enema cup until the right amount of water enters the rectum.
9. During the procedure, the enema cup should be kept 45 cm above the level of the intestine. If the patient complains of pain in the abdomen or overflowing of the loops of the large intestine, stop the flow of fluid from the enema cup.
10. To do this, place a clamp on the rubber tube, remove the rectal tip from the rectum and wipe the anus area with toilet paper.
11. Remove gloves and help the patient go to the restroom,

sit on a chair or put a vessel on him so that he can get rid of the feces and the fluid that has entered the large intestine.

12. Put on gloves and help the patient wash and dry the perianal area.

13. Dispose of disposable items in a designated container.

14. Before pouring out the contents of the vessel or flushing the toilet, inspect the discharge from the patient's intestines, check for the presence of feces and water.

Medical documentation.

a)Specifythe type of enema and the amount of solution.

b)Describe the contents of the intestine released after the enema, its color, quantity, consistency, nature of the feces.

in)Note the occurrence of sharp pains or the delay of the fluid injected with the enema.

G)Record how the patient endured the enema.

Instructions for the nurse.

a. In a patient with hemorrhoids, it is necessary to insert the enema tip into the rectum with care, having previously lubricated it abundantly.

b. Do not administer an enema to a patient with suspected appendicitis or obstruction.bowel movement.

in. If the patient is unable to control the activity of the sphincter directlymy intestines, put a vessel under it and thus perform the procedure.

d. If the doctor's instructions say "enema to clean water", then it is necessary repeat the cleansing enema several times with a large amount of liquid until, after the enema discharge from the intestine, it looks like pure water, without admixtures of feces. In such cases, the patient

usually do no more than 3 cleansing enemas to avoid disturbing the water-salt balance.

Insertion of a gas outlet tube into the rectum.

*Equipment:*rubber or flexible plastic tubes 22-30 cm in size, a small plastic bag or jar for taking feces for analysis, oilcloth, disposable medical gloves, sticky plaster (Fig. 14, 15, 16).

Rice. fourteen.Insertion of a gas tube into a newborn.

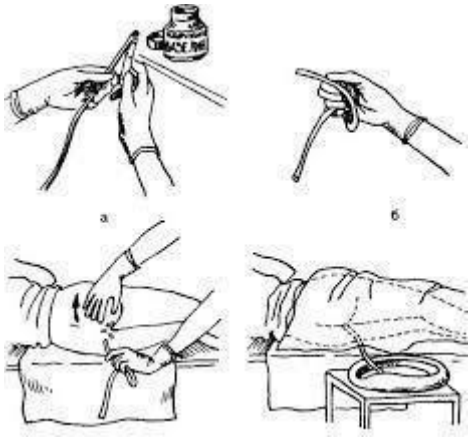


Fig.15.Insertion of the gas outlet tube in the supine position.

movemanipulation.

a) Insert the distal end of the venting tube into a slit in a plastic bag or laboratory glassware opening and secure it with a strip of adhesive tape or an elastic band.

Fig.16.Introduction of gas outlettubes in the supine position.

b) Wash your hands and put ongloves.

c) help the patientlie on your left side, cover it with a bath sheet, leaving your buttocks open, under which place an oilcloth.

d) Lubricate the tip of the gas outlet tube with Vaseline and insert it into the rectum to a depth of 10-15 cm towards the navel.

e) Attach the gas tube with two strips of adhesive tape and leave it in this position for 15-20 minutes.

f) Remove the gas tube and, if necessary, wash and dry the patient's anal area.

g) Remove gloves and wash your hands.

h) If the vent tube is reusable, wash it thoroughly and discard the disposable tube.

Medical documentation.

a)Specifyinsertion and removal time of the gas tube

b)Write down the quantity, nature, color of the stool that was passed through the tube.

in) Note the presence or absence of bloating.

Instructions for the nurse.

a. If necessary, you can insert the gas outlet tube once every 2-3 hours.

b. Assess the degree of intestinal distension before and after insertion of the gas tube.

in. After the introduction of the vent tube, ask the patient to change the position of the body in bed, and if possible, walk a little.

Control questions for topic number 7.

1. Medicinal enemas, what is their purpose.
2. Indications for the appointment of cleansing enemas.
3. Cleansing enemas technique.
4. Indications for the appointment of siphon enemas.
5. Indications for the appointment of medicinal enemas.
6. Indications for the appointment of a gas outlet tube.
7. Setting techniquegas outlet tube.

Topic number 8.

Laboratory and instrumental methods research.

a) Study sputum.
b) Examination of material from the nose and throat. in) Study urine.
G) Study feces.
e) Instrumental methods of examination of the gastrointestinal tract.
f) Instrumental methods for studying the hepatobiliary system.
g) Instrumental methods for studying the urinary system.

The student needs to be aware of:

1. Meaninglaboratory examination of sputum.
2. Rules for the collection of laboratory material (sputum), depending on the study.
3. Rules for the collection of laboratory material from the pharynx and nose.
4. Types of laboratory studies of urine.
5. Rules for taking urine, depending on the type of study.

6. Types of laboratory studies of feces.
7. Rules for taking feces, depending on the type of study.
8. Instrumental methods of examination of the gastrointestinal tract.
9. Rules for preparing a patient for instrumental methods of examination of the gastrointestinal tract.
10. Instrumental methods for the study of the hepatobiliary system. 11. Rules for preparing the patient for instrumental research methods of the hepato-biliary system.
12. Instrumental methods for studying the urinary system.
13. Rules for preparing the patient for instrumental research methodsof the urinary system.

The student must be able to:

1. Collection of sputum for examination.
2. Taking swabs from the pharynx and nose.
3. Collection of urine for research.
4. Collection of feces on the study
5. Preparation of the patient for instrumental methods of examination of the gastrointestinal tract
6. Preparation of the patient for instrumental methods of studying the hepato-biliary system
7. Preparation of the patient for instrumental methods of investigation of the urinary system.

Phlegm -it is a pathological secret of the respiratory tract, which is released during coughing. Sputum is formed when the mucous membrane of the trachea and bronchi is damaged by infectious, physical or chemical agents (Fig. 1).

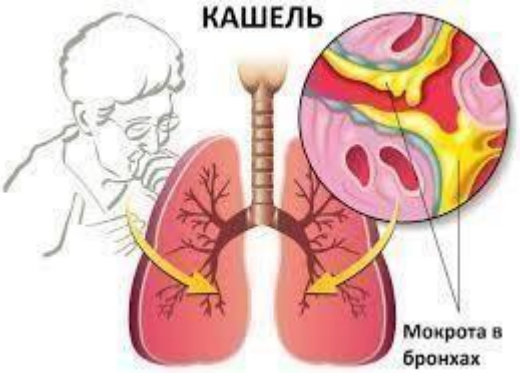


Fig.1.Phlegm that provokes a cough.

Sputum is always a pathological phenomenon and fundamentally differs from the usual tracheobronchial secret, which is formed in a healthy person in an amount of about 100 ml per day and is excreted from the body without coughing due to the coordinated movement of the cilia of the ciliated epithelium.

In case of damage to the mucous membrane of the respiratory tract and its inflammation, the secretion of the tracheobronchial glands and goblet cells increases significantly and the composition of the tracheobronchial secret changes significantly: the content of decay products of epithelial cells and microorganisms, metabolites of the vital activity of bacteria, exudative fluid increases.

Sputum examination in many cases (although by no means always) allows:

- definethe nature of the pathological process;
- clarify the etiology of damage to the respiratory tract and lung tissue, in particular, isolate the causative agent of inflammation; determine
- the main properties of the pathogen, including its sensitivity to antibiotics;
- evaluate the effectiveness of treatment.

Sputum analysisincludes:

1. Macroscopic examination (determination of the nature of sputum, its quantity, color, transparency, odor, consistency, the presence of impurities and various inclusions).
2. Microscopic examination (determination of cellular and other elements of sputum, as well as the study of microbial flora in native and stained smears).
3. Microbiological research (identification and study of the properties of pre-positive pathogen).

Chemical examination of sputum has not yet found wide distribution in clinical practice, although it also has a certain diagnostic value.

Collection of sputum for examination.

Sputum for research is collected in the morning on an empty stomach after preliminary thorough rinsing of the throat and mouth with boiled water (Fig. 2, 3). Sometimes it is recommended to rinse the mouth with a 1% solution of aluminum alum after this.

The patient coughs up sputum directly into a clean, dry glass dish with a tight-fitting lid. If microbiological examination of sputum is expected, it is coughed up into a sterile Petri dish or other sterile container (Fig. 4). It is important to warn the patient that when collecting sputum, the ingress of saliva into samples sent to the laboratory can significantly change the results of the study.

Remember: only freshly isolated sputum is sent to the laboratory, since its long standing, especially at room temperature, leads to autolysis of cellular elements and reproduction of microflora. If necessary, short-term storage of sputum in the refrigerator is allowed.

To take laboratory material from the pharyngeal and nasal mucosa, a sterile metal swab is used (a cotton swab attached to a wire, passed through a stopper into a sterile test tube). For sowing, plaque is usually taken from the tonsils, palatine arches and the mucous membrane of the nasal cavity. The patient must be seated in front of a light source.


ПАМЯТКА
ПО СБОРУ МОКРОТЫ
1 Лучше всего собирать мокроту утром, натощак, но после чистки зубов. Если вы собираете мокроту днем и уже успели перекусить, перед сбором мокроты прополощите рот, чтобы остатки пищи не попали в мокроту
2 ПОКАШЛЯЙТЕ
3
Поднесите как можно ближе ко рту чистый сухой контейнер и сплюньте в него порцию мокроты
4 ПРИ ЗАТРУДНЕНИИ ОТХОЖДЕНИЯ МОКРОТЫ:
Несколько раз постучите себя в грудь
Сделайте дыхательные упражнения
Сделайте ингаляцию: на 1 литр горячей воды – 1 ст. ложку поваренной соли или пищевой соды
5 Плотно закройте контейнер крышкой и вымойте руки
Как можно скорее принесите собранный образец мокроты в медучреждение

Fig.2.

Rice. 3.Spittoons.

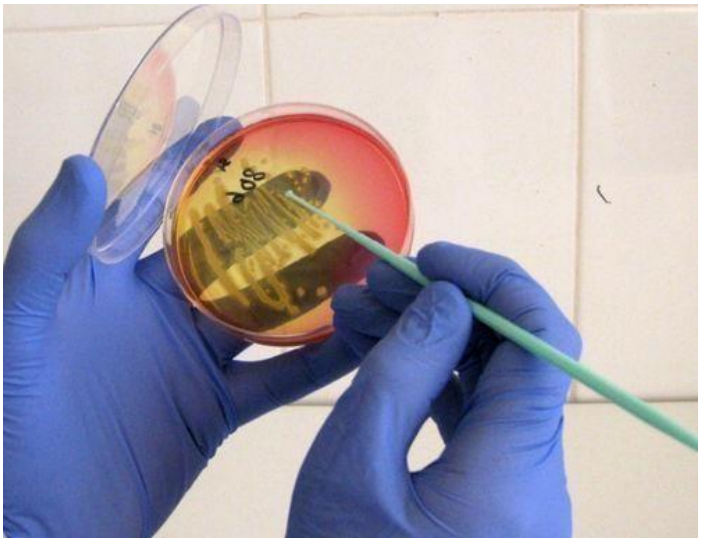
. 

Fig.4.Explanations in the text.

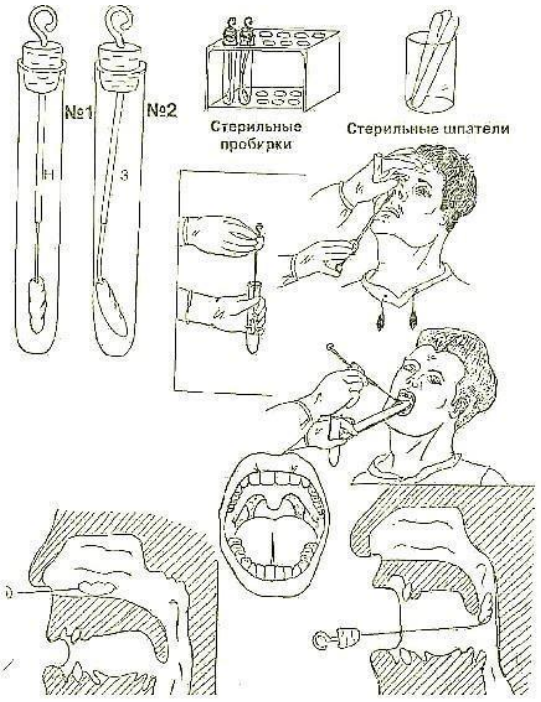
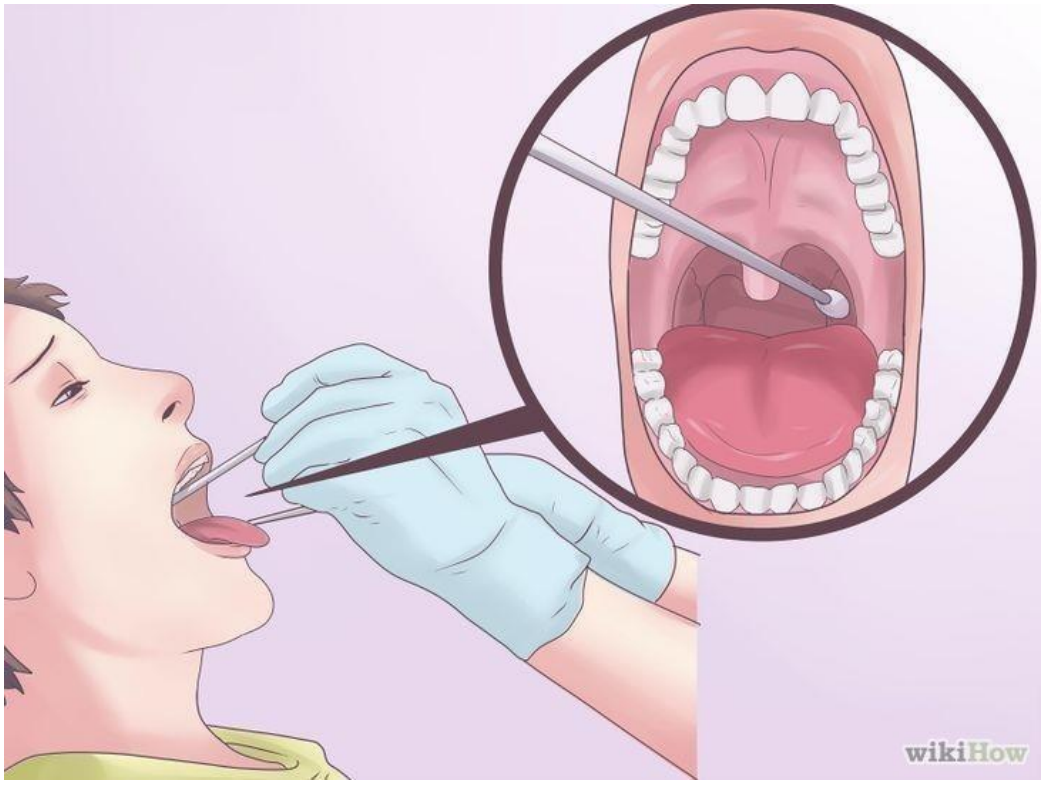


Fig.5.Taking swabs from the nose and throat.



Rice. 6. Taking a swab from the pharynx.

Practical skills

General analysis of sputum.

*Equipment:*clean wide-mouth glass jar made of transparent glass, disinfectant: 5% chloramine solution, 2% sodium bicarbonate solution.

The course of the procedure.

1. Warn and explain to the patient the meaning and necessity of the upcoming study.
2. Give laboratory glassware to hand, during an outpatient examination and a referral.
3. Teach sputum collection techniques. Warn that they are collecting sputum only when coughing, not when expectorating.
4. Explain that it is necessary to brush your teeth in the morning 2 hours before collecting sputum and rinse your mouth and throat with boiled water.

milk immediately before collection.

5. Cough up and collect sputum in a clean jar in an amount of at least 3-5 ml. Close the lid.
6. Attach a referral and deliver to the clinical laboratory or give it to the ward nurse.

Bacteriological examination of sputum.

*Equipment:*sterile, wide-mouth glass jar with a kraft paper lid, referral to the laboratory.

The course of the procedure.

1. Warn and explain to the patient the meaning and necessity of the upcoming study.

2. It should be borne in mind that it is advisable to collect sputum before starting antibiotic treatment.

3. Warn the patient that they collect sputum only when coughing, and not when expectorating.

4. Explain to the patient that in the evening, before the examination, it is necessary to brush the teeth, and in the morning on an empty stomach, rinse the mouth and throat with boiled water immediately before collection.

5. Open the lid of the jar.

6. Cough up and collect sputum (not saliva!) in a sterile jar in an amount of at least 5 ml.

Note:be careful not to get phlegm on the rim of the jar, and do not touch the inside of the lid and jar.

7. Close the lid.

8. Attach referral and deliver to bacteriological laboratory.

Note:freshly isolated sputum is examined no later than 1-1.5 hours. In hospital conditions, sputum is delivered to the bacteriological laboratory in a sealed container, and if it is necessary to transport sputum over a long distance, then special transport is used.

Examination of sputum for BC by the flotation method.

To test for mycobacterium tuberculosis, sputum is collected in a clean container during the day, and if necessary (small amount of sputum) for three days, keeping it in a cool place (Fig. 7).

Fig.7.

When collecting sputum for mycobacterium tuberculosis, it must be borne in mind that they are detected only if their content in 1 ml of sputum is at least 10,000. Therefore, sputum is accumulated within 1-3 days and delivered to the clinical laboratory in an amount of at least 15-20 ml.

*Equipment:*a pocket spittoon to collect sputum or a clean, wide-mouthed glass jar.

The course of the procedure.

1. Warn and explain to the patient the meaning and necessity of the upcoming study.

2. Explain to the patient what is needed, for 3 consecutive days to collect sputum for examination in a dark glass container.

3. Warn the patient that they collect sputum only when coughing, and not when expectorating.
4. Explain to the patient that in the evening, before the examination, it is necessary to brush the teeth, and in the morning on an empty stomach, rinse the mouth and throat with boiled water immediately before collection.
5. In the morning, cough up and collect sputum (not saliva!) in a clean jar in an amount of at least 15-20 ml. Close the lid.
6. Attach the referral and deliver the jar to the laboratory or give it to the ward nurse.

Sputum examination for atypical cells.

When taking sputum for atypical (tumor) cells, it should be remembered that these cells are rapidly destroyed, therefore, freshly isolated sputum is examined.

For a greater likelihood of tumor cells entering the sputum, preliminary inhalations are used with the proteolytic enzyme trypsin, which promotes the release of sputum from the deepest parts of the bronchial tree.

Patient preparation and sputum collection rules are the same as for the general clinical analysis.

Collection of laboratory material from the mucous throat. (Fig.5, 6).

*Equipment:*a rack with sterile test tubes tightly closed with cotton-gauze swabs, in which rods with wound dry cotton swabs are mounted for material sampling; spatula sterile kraft package; bix for transporting test tubes, tripod; glassmaker.

Manipulation progress.

1. Explain to the patient the meaning and necessity of the upcoming study and obtain consent.
2. Wash your hands with soap, put on a mask, gloves.

3. Have the patient face the light source, sit opposite the patient.
4. Put the number on the test tubes with a glassgrapher, corresponding to the number on the direction: ZEV - No. 1, place the test tube in a tripod.
5. Take a spatula and a test tube with the label: ZEV - No. 1 in your left hand.
6. Ask the patient to open his mouth, insert the spatula into his mouth, fix the patient's tongue with it.
7. Remove the rod with a sterile swab from the test tube with the right hand, holding it by the cork in the form of a cotton-gauze swab.
8. Take a swab without touching the mucous membrane of the oral cavity and tongue with a sterile swab, successively wiping the right tonsil, then the palatine arch, uvula, left palatine arch, left tonsil and posterior pharyngeal wall.
9. Remove the swab without touching the oral mucosa and tongue.
10. Remove the spatula from the oral cavity, immerse in a disinfectant solution.
11. Insert the swab into the test tube, without touching the outer surface of the tube, close it tightly.
12. Put the test tube in a tripod, then in a bix, closing it with a "lock".
13. Remove gloves, mask, immerse them in a disinfectant solution.
14. Wash and dry hands.
15. Designreferral to a bacteriological laboratory.
16. Deliver the test tube with the accompanying referral to the laboratory.

Note: The test tube can be stored in a special refrigerator for no more than 2-3 hours.

Collection of laboratory material from the nose. (Fig.5).

*Equipment:*the same as when taking material from the oropharynx.

Manipulation progress.

1. Explain to the patient the meaning and necessity of the upcoming study and obtain consent.
2. Wash your hands with soap, put on a mask, gloves.

3. Have the patient face the light source, sit opposite the patient.
4. Examine the patient's nasal cavity, make sure it is clean.
5. Use a glassgrapher to put the number on the test tubes corresponding to the number on the direction: NOS - 2, place the test tube in a rack.
6. Take a closed test tube labeled "NOS-2" in the left hand under the 3rd, 4th, 5th fingers, and with the right - insert the swab deep into the right, then the left nasal cavity.
7. Remove the swab from the nasal cavity.
8. Put the test tube in a tripod, then in a bix, closing it with a "lock".
9. Remove gloves, mask, immerse them in a disinfectant solution.
10. Wash and dry hands.
11. Make a referral to the bacteriological laboratory.
12. Deliver the test tube with the accompanying referral to the laboratory.

Note: The test tube can be stored in a special refrigerator for no more than 2-3 hours.

Control questions for topic number 8.

1. What is sputum.
2. How is mucus formed?
3. What can be determined in the study of sputum.
4. What are the general rules for collecting sputum for laboratory testing.
5. What is the technique for collecting sputum for a general analysis.
6. What is the technique for collecting sputum for microbiological analysis.
7. What is the technique for collecting sputum for atypical cells.
8. What is the technique for collecting sputum for Mycobacterium tuberculosis.
9. What are the rules for taking laboratory material from the pharynx.
10. What are the rules for taking laboratory material from the nose.

Topic number 9.

Methods of drug administration.

BUT. Rules for prescribing and storing medicines.
B.Methods of drug administration.

AT. Insertion techniquemedicines.

The student needs to be aware of:

1. Rules for prescribing and receiving medicines.
2. Requirements for the storage of medicines.
3. Ways and methods of introducing drugs into the body.
4. Types of syringes and needles.
5. Anatomical areas of drug administration parenterally.

The student must be able to:

1. Samples of appointments from the medical history.
2. Teaching the patient to take various dosage forms.
3. A set of medicines from ampoules, vials.
4. Assembly of the syringe from the sterile table.
5. Carrying out intradermal, subcutaneous, intramuscular injections.
6. Carrying out in / in the infusion.
7. Assess the possible complications arising from the parenteral route of drug administration.

The use of drugs is the main among the methods of treatment. Prescribing, receiving medicines from the pharmacy is carried out by the head nurse of the department in accordance with the needs of the department at the request of ward nurses after a daily selection of prescriptions from prescription lists. Requirements for obtaining medicines from a pharmacy are issued in Russian in two copies. The requirement form is certified by the head of the department (Fig. 1.).

Requirements for poisonous and narcotic drugs are issued in Latin in three copies and are certified by the signature of the chief physician and the seal of the institution. The requirements for obtaining potent, poisonous, acutely deficient drugs indicate the numbers of case histories, last name, first name, patronymic of the patient for whom the drug is prescribed (Fig. 2).

Утверждаю

"___" _____ 200__г.

Главный врач _____

ТРЕБОВАНИЕ № _____

Отделение _____ Старшая м/сестра _____
(Ф., И., О.) Подпись

Зав. отделением _____
(Ф., И., О.) Подпись

№ п/п	Наименование лекарственного средства	Един. изм.	Затребовано	Разрешено к отпуску	Отпущено	Цена	Сумма

Отпустил _____ Получил _____
(Ф., И., О.) Подпись (Ф., И., О.) Подпись

Fig.1.Blank requirementfor medicines.

Приложение № 1

ФОРМА
специального рецептурного бланка на наркотическое средство и психотропное вещество
Рецепт на право получения лекарства,
содержащего наркотическое вещество и психотропное вещество
АБ № 495 272

(штамп лечебного учреждения)
«_____»_____200 г.

Rp: _____
Документ особого учета _____ остается в аптеке
Прием _____
Гр. _____
История болезни № _____
Врач _____
(разборчиво)

М.П.

Заполняется чернилами
Исправления не допускаются

Rice. 2. Form - a prescription for obtaining narcotic and potent substances.

When storing medicines, the rules for placing them in groups are observed:

1. list A - poisonous and narcotic
2. list B - potent drugs
3. common list.

Preparations of groups A and B are stored in the department in a safe. The keys to the safe should be with the persons appointed by order of the medical institution responsible for the storage and dispensing of group A medicines (Fig. 3).

Preparations of these groups, as well as alcohol and acutely deficient preparations, are subject to subject-quantitative accounting, control of issuance, which is carried out in a special book, numbered, laced and sealed and signed by the head physician of the medical institution.

Other medicines should be stored in the department at the nurse's station, in lockable cabinets on different shelves with designations depending on the method of use: "External", "Internal",
"Parenteral", etc. All sterile solutions are stored in glass

Rice. 3.Safe for storing narcotic and potent drugs.

closet in the treatment room (Fig. 4).

Stocks of narcotic medicines should not exceed the three-day need of the department, poisonous - five days, potent - ten days. In places of storage it is necessary to observe the temperature regime. Photosensitive products are stored separately, in tightly closed boxes. Decoctions, infusions, emulsions, antibiotics, suppositories, serums are stored only in a refrigerator at a temperature of +2 to +10 o C, which

ry is intended only for the storage of medicines. The basic rule to remember is that medicines must be used within the stated expiration dates.

Fig.4.Cabinet for storing medicines in the treatment room.

In medical practice, various routes of administration of drugs are used, depending on the existing pathology in the patient, as well as on the effect that we expect to achieve. Exist

external, inhalation, enteral and parenteral routes of drug administration.

Depending on which route of administration we choose, we also use forms of drugs.

1. ***Outwardly***you can inject drugs through the skin - these are ointments, emulsions, powders, talkers, tinctures, gels (Fig. 5).
2. ***Through mucous membranes***eye drops and ointments, on the nasal mucosa preparations in the form of powders, vapors, solutions (in drops), ointments. Externally, preparations are used that are injected into the ears in the form of drops of aqueous and oily solutions; the peculiarity of the introduction into this area is that the preparations must be administered in a heated form up to 37 ° C (Fig. 6. 7).

Rice. 5. Application of ointment on the skin of the face.

Drugs also affect the vaginal mucosa. Dosage forms that are used in this case are balls, tampons, powders, solutions for douching (Fig. 8, 9, 10).

Fig.6.Instillation of drops in the nose.

Fig.7.Instillation of drops in the ear

Fig.8.Balls and candles.

3. ***Enteral***method of administration, when absorption is carried out through the gastrointestinal tract - through the mouth (per os) you can use powders, tablets, pills, drops, potions, tinctures,

Fig.9.Vaginal tampons.

decoctions, infusions, dragees. Medicines can be administered in any dosage and in a non-sterile form (Fig. 10). These are the advantages of this method of administration. A significant drawback of this method of administration is that the drugs are absorbed in the small intestine, then through the portal vein system they enter the liver and only then enter the

general

blood flow. As a result of such a long journey, the drug is exposed to the action of gastric and intestinal juices, and most importantly, significant transformations occur in liver hepatocytes.

Fig.10.Taking medicines per os.

Thus, there is a significant change in the drug, both in its chemical formula and in its concentration. This is a serious disadvantage of this method of drug administration.

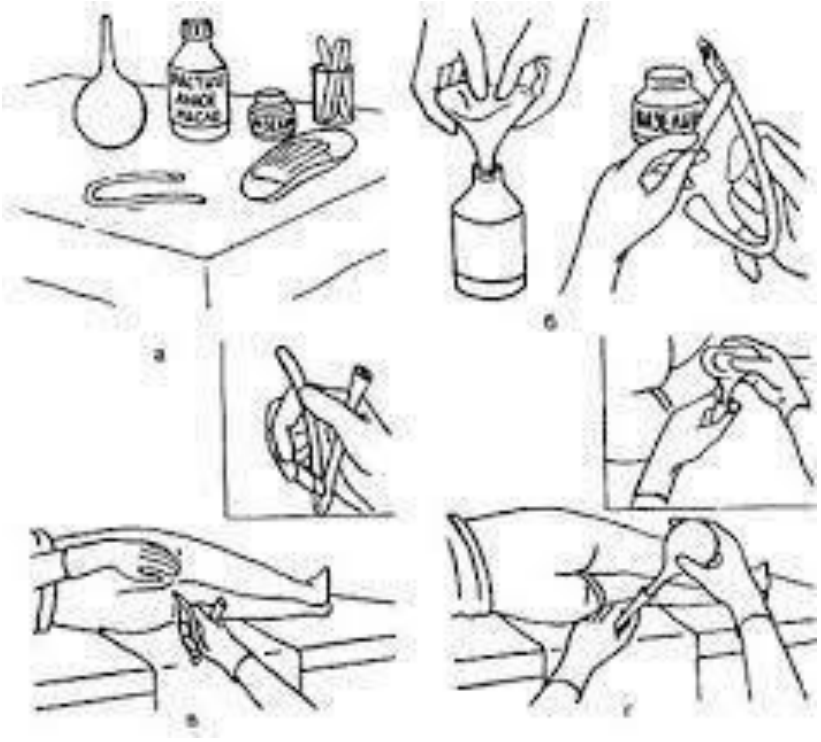
The next enteral route of administration is under the tongue (sub lingva). So you can enter drops, dragees, tablets (nitroglycerin, validol, hormone preparations) Fig.11. The advantage of this method of administration is that the drug is quickly absorbed and goes directly into the bloodstream, bypassing the action of digestive enzymes, bypassing the liver. The disadvantage of this method is that only drugs that are used in small doses can be administered in this way.

Transbuccal route of administration (trans bucca) is the introduction of drugs through the mucous membrane of the upper gums. The preparations that are used with this method of administration are produced in the form of plates. The domestic industry produces Trinitrolong plates, which are glued over the canine, and the drug is gradually released from the plate into the blood.

Fig.11.Taking medication sub lingva

*Through the rectum (per rectum)*liquid medicines (infusions, decoctions, mucus) are administered using a pear-shaped balloon - medicinal enemas. The amount of the drug should be administered simultaneously from 50 ml to 200 ml to a depth of 7-8 cm, otherwise the patient may not be able to withstand the contact time of the drug with the rectal mucosa (Fig. 12 a, b, c, d).

First you need to put a cleansing enema. The advantage of this method of drug administration is that the drugs are quickly absorbed into the vessels of the hemorrhoidal plexus and can be accurately dosed. The preparations are not exposed to the action of digestive enzymes, they enter directly into the inferior vena cava, bypassing the liver.



Rice. 12.Stages of administration of medicinal enema.

Suppositories or suppositories are administered with a pointed end, usually at night, to allow time for the suppository to dissolve and the drug to be absorbed (Fig. 13).

Fig.13.Insertion of a suppository into the rectum.

4. In various diseases of the respiratory tract, the inhalation method of administering drugs is used. In this case, the mucous membrane of the bronchial tree is affected. This way you can administer drugs that can have a local effect on

mucosa of the bronchial tree, as well as a systemic effect on other organs. For example, gaseous substances are oxygen, nitrous oxide, vapors of volatile liquids that are used for anesthesia, aerosols (suspension of the smallest particles of solutions). The most commonly used cans with metered-dose aerosol preparations are a pocket inhaler (Fig. 14).

Fig.14.Using a metered dose inhaler.

In addition to spray cans, nebulizers are used. A nebulizer is a device that converts a drug solution into an aerosol to deliver the drug with air or oxygen directly to the patient's bronchi. Compressed air turns the liquid drug into a misty cloud and delivers it along with air and oxygen (Fig. 15).

Rice. fifteen.Nebulizer.

Another device for delivering aerosols to the respiratory tract is *spacer*. A spacer is a special chamber that connects the inhaler to the mouth, in which the particles are in suspension.By inhalationlekar-stinennprePmacawtov mnaboutGaboutlmedicine settles on the back wall of the mountainstani and walls of the oral cavity, since the jet from the inhaler is quite powerful. To avoid this, a spacer is used (Fig.16).

Fig.16.The use of a spacer for inhaling drugs.

Fig.17.

Fig.18.Spacer.

The jet of medicine in the spacer turns into a cloud, which enters the bronchi more smoothly when inhaled. The amount of medicine that enters the respiratory tract increases. Large particles of the drug, which would still not pass into the bronchi and remain in the oral cavity, settle on the walls of the spacer. Less gets into the bronchi and freon.The advantage of a spacer is that it limits the contact of drugs with the oral mucosa. This is very important, for example, when using inhaled glucocorticoids, which can provoke the development of a fungal infection of the oral cavity.

5. ***Parenteral route of drug administration***. Parenterally means bypassing the digestive tract. It is carried out by means of injections: intradermal, subcutaneous, intramuscular, intravenous, intraarterial; intracavitary - this is into the pleural cavity, into the abdominal cavity, into the cavity of the heart, into the bone marrow, into the spinal canal, into the cavity of the joints.

The advantages of this method of administration include the speed of action of drugs, the accuracy of dosage, the flow of drugs into the blood in an unchanged form.

Significant disadvantages of this method of administration can be considered the mandatory participation of trained medical personnel, strict adherence to

poor asepsis and antisepsis rules, difficulty in administering drugs in case of bleeding, skin damage at the injection site. If all these conditions, and sometimes even one of them, are not observed, serious complications may develop. In addition, injections must be carried out in rooms adapted for this - the treatment room of a hospital or clinic, but under certain conditions it is possible to carry out in the ward or at home, when the patient is visited by a health worker. In extreme situations, injections are also performed at the scene, of course, in compliance with the rules mentioned above.

Appropriate instruments are used for injections: syringes and needles. Before using the syringe, you need to make sure that its packaging is tight - this is the first and second thing, before taking the medicine into the syringe, you must carefully read its name and dosage, and finally, the third - the ampoules must be stored for some time after the injection, until you are sure that
The patient has no reaction to the administered drug.

The most common post-injection complications are:

Infiltrate- the most common complication after subcutaneous and intramuscular injections. Most often, an infiltrate occurs if: a) the injection is made with a blunt needle; b) for intramuscular injection, a short needle intended for intradermal or subcutaneous injections is used.

Abscess- purulent inflammation of soft tissues with the formation of a cavity filled with pus. The reasons for the formation of abscesses are the same as infiltrates. In this case, infection of soft tissues occurs as a result of violation of the rules of asepsis.

Needle breakageduring the injection with a sharp contraction of the muscles of the buttocks during intramuscular injection, if the patient is not

a preliminary conversation was carried out before the injection or the injection was made to the patient in a standing position.

Medical embolismcan occur when oil solutions are injected subcutaneously or intramuscularly (oil solutions are not injected intravenously !!!) and the needle enters the vessel. The oil, once in the artery, will clog it, and this will lead to malnutrition of the surrounding tissues, their necrosis.

Air embolismwith intravenous injections, it is the same formidable complication as oil. The signs of embolism are the same, but they appear very quickly, within a minute.

Damage to the nerve trunkscan occur with intramuscular and intravenous injections, either mechanically (when the injection site is chosen incorrectly), or chemically, when the drug depot is near the nerve, as well as when the vessel supplying the nerve is blocked.

Thrombophlebitis- inflammation of a vein with the formation of a thrombus in it - observed with frequent venipuncture of the same vein, or when using blunt needles.

Phlebitis- inflammation of the entire venous wall. Any drug with a high concentration can cause aseptic inflammation of the venous intima, followed by a transition to the entire venous wall.

***Necro*h**tissues can develop with an unsuccessful puncture of the vein and the erroneous injection of a significant amount of an irritating agent under the skin.

Hematomait can also occur during inept venipuncture: a purple spot appears under the skin, because. the needle pierced both walls of the vein and the blood penetrated into the tissues.

Fainting- short-term loss of consciousness due to acute insufficiency of blood supply to the cerebral vessels. This complication can develop with inept intravenous injection due to abrupt

whom pain irritation or the type of blood. The patient loses consciousness, there is a sharp pallor of the skin, cold sweat, cold extremities, weak, frequent pulse. In uncomplicated cases, fainting lasts no more than 20-40 seconds, after which consciousness is restored. It is necessary to provide assistance to the patient on an emergency basis before the doctor arrives in accordance with the standard.

allergic reactionson the introduction of a drug by injection can occur in the form of urticaria, acute rhinitis, acute conjunctivitis, Quincke's edema, often occurring after 20-30 minutes. after drug administration. The most severe form of an allergic reaction is anaphylactic shock.

Anaphylactic shockdevelops within seconds or minutes of drug administration. The faster the shock develops, the worse the prognosis.

The reasons for this may be: the use of non-sterile syringes, insufficient treatment of the nurse's hands, as well as violations of the technique of administering drugs, ignorance of the patient's allergic history. Particular attention should be paid to injections of antibiotics, without making them without a preliminary sensitivity test, vaccines, protein preparations, analgin solutions, non-steroidal anti-inflammatory drugs, vitamins, which can give severe allergic reactions up to the development of anaphylactic shock.

If the rules of asepsis and antisepsis are not followed, after the administration of drugs, signs of an inflammatory infiltrate may develop already on the first day. There is a painful induration at the injection site, reddening of the skin, and the local temperature reaction increases.

If this is not treated in the future, an abscess may develop.

- purulent fusion of tissues, which already requires surgical intervention.

When administering drugs parenterally, the following rules must be observed:

1. The nurse must strictly observe all the rules of asepsis and antisepsis when performing injections.
2. The capacity of the syringe must be chosen depending on the amount of solution to be injected, and the length of the needle and diameter - depending on the injection site and the nature of the solution to be injected. Use only sterile sealed, not expired syringes.
3. Before performing the injection, carefully palpate the tissues. If there is a deep seal, then this place should not be injected.
4. It is impossible to insert the needle into the tissues with a “slap”, since sterility is violated, it is impossible to accurately select the puncture site and insert the needle to a sufficient depth.
5. When introducing oily solutions, suspensions after a puncture, it is necessary to pull the plunger of the syringe towards you to make sure that the needle does not enter the vessel. Drops of the oil solution, falling into the vessel, can clog it. The nutrition of surrounding tissues is disturbed, their necrosis develops. With the blood flow, oil emboli can enter the vessels of the lungs and cause their blockage, which is accompanied by severe suffocation and can cause the death of the patient. Oily solutions are poorly absorbed, so an infiltrate may develop at the injection site.
6. Do not inject coldsolutions (from the refrigerator). Oil solutions are heated up to 37-38 o C.
7. After the injection, it is recommended to apply heat to improve the absorption of the drug, especially when administering oily solutions.
8. Hypertonic solutions (analgin, magnesium sulphate) should be diluted with novocaine 0.25%, or saline for rapid absorption.

In the event of anaphylactic shock, the nurse must provide the patient with emergency assistance before the arrival of the doctor, using the standard styling for this, which should be in every treatment room! Nurse actions:

1. If the patient's condition worsens, immediately stop the administration of the drug.
2. Lay the patient down: turn the head on its side, protrude the lower jaw, remove dentures, raise the lower limbs.
3. Apply a tourniquet above the injection site if it is a limb and inject 0.15 - 0.5 0.1% epinephrine solution into the injection site or chop at a dose of 0.3 - 0.5 ml of 0.1% adrenaline solution with 4-5 ml of physiological solution.
4. Put an ice pack or cold on the injection site.
5. In case of intravenous injection, immediately stop the administration of the drug and introduce corticosteroids 30-60-90 mg of prednisolone per 10-15 ml of 5% glucose, depending on the severity of the condition, to relieve an allergic reaction.
6. Introduce antihistamines(desensitizing) agents 1% suprastin solution 2.0-4.0 ml; 0.25% solution of pipolfen 2.0-4.0 ml; 1% solution of diphenhydramine 2.0-5.0 ml. To relieve swelling of the mucous membrane of the upper respiratory tract and desensitization.
7. If there are signs of heart failure, introduce cardiac glycosides: 0.05% solution of strofanthin 0.5 ml in 10 ml of saline IV or 0.06% solution of corglycone in 10 ml of saline very slowly.
8. With asphyxia and suffocation, 2.4% solution of eufillin 10.0 intravenously per 10 ml of saline.
9. Cover the patient with heating pads.
10. Monitor blood pressure.

11. In case of cardiac arrest and breathing, immediately start chest compressions and artificial respiration

12. The patient should be hospitalized in the intensive care unit under observation.

Practical skills.

Instillation of drops in the ear (Fig. 19, 20).

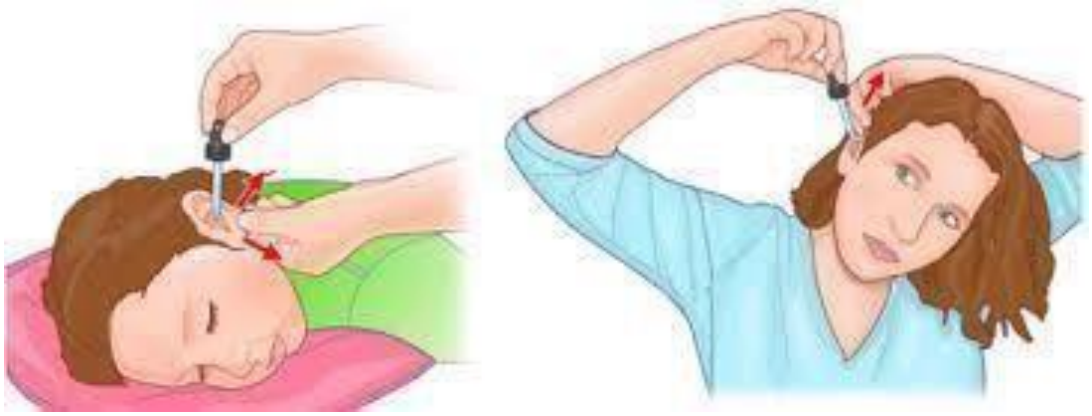


Fig. 19. Instillation of drops in the ear while lying down and sitting.

Rice. 20. Instillation of drops in the ear in a sitting position.

*Target:*medical.

Indications: pain, inflammation.

*Equipment:*medicinal product in pharmacy packaging, sterile pipettes, tray; tray for waste material, cotton balls, rubber gloves, water bath, cotton flagella (turundas).

Preparation for the procedure:

1. Prepare all necessary equipment.
2. Read the name of the drug.
3. Give the patient the necessary information about the drug and explain the procedure.
4. Warm the drug solution to body temperature in a water bath by placing the vial in a container of hot water.
5. Wash your hands, put on gloves.

Manipulation progress.

1. Have the patient sit on the couch (on a chair) with their head tilted to the healthy side or help the patient lie on their side.
2. If there is a discharge from the ear, clean the ear canal with cotton swabs (turundas).
3. Discard the turundas in a tray with a disinfectant solution.
4. Take 5-6 drops of the drug into the pipette, drop one drop on the back of your hand (to control the temperature of the drug).
5. Pull the auricle back and up with your left hand, and hold the pipette with your right hand and count 2-3 drops into the ear (Fig. 19).
6. Insert a cotton swab into the patient's outer ear.
7. Ask the patient to stay in this position for 10-15 minutes.
8. Help the patient sit up if he is lying down.
9. Ask the patient how they feel.

End of procedure.

1. Throw the pipette into the tray with disinfectant solution.
2. Remove gloves, wash and dry hands.

Medical documentation.

1. Specify the drug that was injected into the ear.

2. Describe the patient's reaction to the administered drug.

A set of medicinal substance from an ampoule or vial.

*Target:*medical.

*Equipment:*boxes with medicinal substances in ampoules or vials (Fig. 21), sterile syringe, sterile needles, sterile cotton balls.

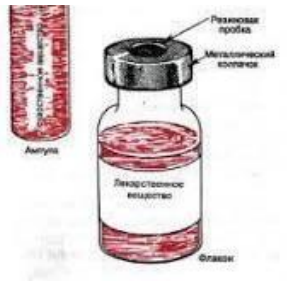


Fig.21.Medications in ampoule and vial.

Preparation for the procedure:

1. Prepare all necessary equipment.
2. Check the tightness of the syringe and needle packages.
3. Read the name of the drug.
4. Wash your hands, put on gloves.

movemanipulation.

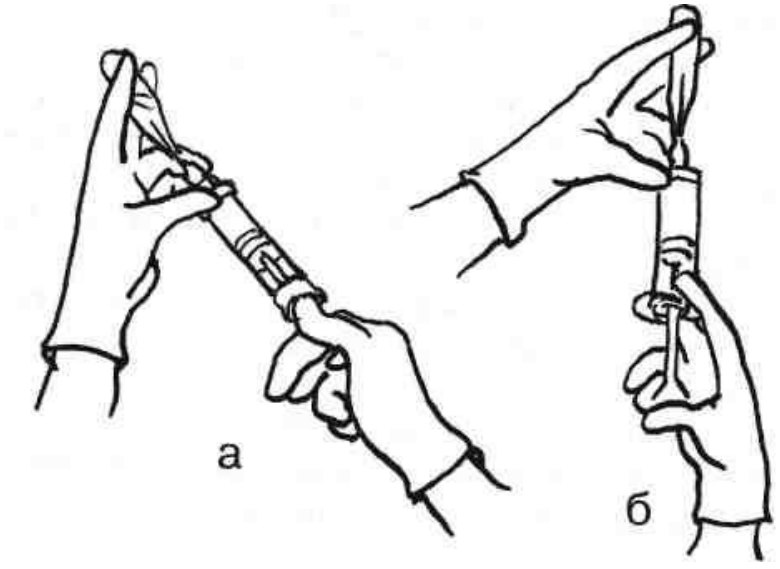
1. Assemble the sterile syringec,attach the needle.
2. Carefully read the name of the medicinal substance, the expiration date on the box aloud, open the package, compare the amount of solution insunex ampoules or contents of vials,color, transparency.
3. Take one ampoule or vial, read aloud the name of the drug, its dose, make sure that the solution in the ampoule is transparent by attaching it to the sleeve of the dressing gown.
4. Take the ampoule in your left hand, and shake the solution from the narrow part of the ampoule with your right

down, striking the narrow part of the ampoule (Fig. 22).

Fig.22.Removing the solution from the narrow part of the ampoule.

5. With a sterile cotton ball moistened with alcohol, treat with alcohol and break off the narrow end of the ampoule into a sterile ball or treat the rubber stopper on the vial with a sterile cotton ball.

6. Take the ampoule (or bottle) in your left hand between the second and third fingers, as "cigarette", neck down - vertically. Syringe - in the right hand: the second finger on the cannula of the needle, the rest on the cylinder and carefully, without touching the edges of the ampoule, insert the syringe needle into it (Fig. 23 a, b).



Rice. 23.A set of the drug from the ampoule into the syringe.

7. Take the vial in your left hand between the second and third fingers and insert the needle into the rubber stopper to infuse the solvent vial (Fig. 24).

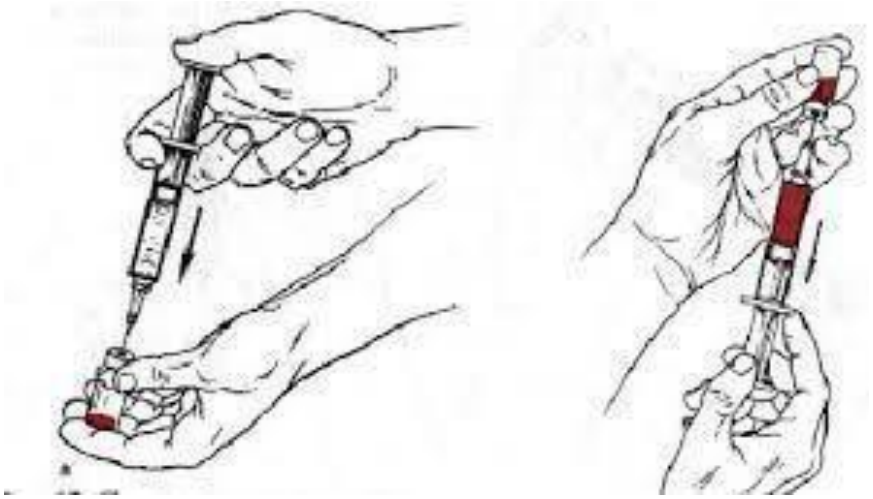


Fig.24.Introduction and collection of the drug from the vial.

8. Transfer the first, fourth, fifth fingers of the left hand to the syringe barrel, and with the right pullpiston, dial the right amount of medication. Watch outso that the end of the needle is always in solution.

9. Not extracting needle from an empty ampoule (or vial), release the air from the syringe. When removing air from the syringe, the drug solution must not be released into the room, since in this case the aerosol in the ambient air poses a health hazard to the nurse.

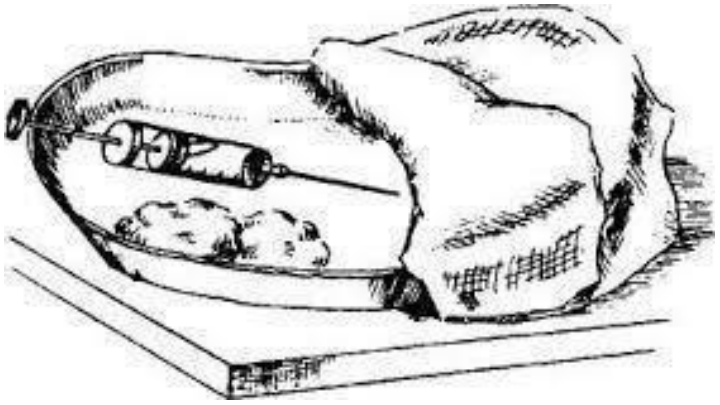
10. Remove the needle used to collect the solution, put on a new injection needle.

11. Check the needle for patency by placing the syringe vertically at eye level, then remove the protective cap from the needle.

Note.*If the injection is to be done in the ward, without removing the protective cap from the needle, put the syringe and cotton balls in the syringe bag or sterile tray*(Fig.25).

Subcutaneous techniqueth injections.

*Target:*administration of drugs for therapeutic purposes. Drugs are administered subcutaneously, which should be slowly and gradually absorbed into the blood. An example of a subcutaneous injection is the administration of insulin and heparin. The medicinal substance is injected directly into the subcutaneous fat (Fig. 26).



Rice. 25.Sterile tray with syringe.

Fig.26.The introduction of drugs into the subcutaneous fat.

Subcutaneous injection sites:***outer surface of the shoulder, antero-outer surface of the thigh, subscapular region, anterior abdominal wall (Fig. 27).***

*Equipment:*a syringe with a capacity of 2 - 1 ml single use, a 20 mm needle with a section of 0.4 mm; the tray is sterile, covered with a sterile napkin folded in 4 layers, with sterile cotton balls under the first layer, tweezers under the second layer; 70% ethyl alcohol; drug ampoule; rubber gloves; container with disinfectant solution.

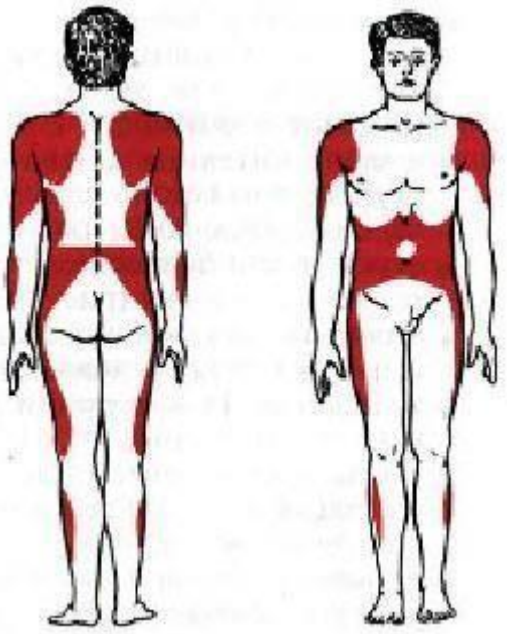


Рис. 15. Области выполнения подкожных инъекций.

Rice. 27.Areas for subcutaneous injections.

Preparation for the procedure:

1. Examine the sheet of appointments, find out the ward and the initials of the patient.

2. Explain to the patient the purpose and course of the procedure, clarify information about the drug, obtain consent to the procedure.

3. Put on a mask, prepare your hands for the procedure, put on gloves.

4. Treat the neck of the ampoule with a swab moistened with alcohol twice.

5. Draw the drug into the syringe at the desired dose, release the air into the ampoule, remove the needle and drop it into a container with a disinfectant solution.

6. Put on the hypodermic needle, let out the air, put the cap on the needle.

movemanipulation.

1. Takesyringe in the right hand: the second finger on the cannula, the remaining fingers on the cylinder.

2. Palpate the injection site with your left hand so as not to inject the drug into the infiltrate.

3. Hold the syringe in your right hand, cut the needle in the same planewith divisions, intoroyPalec na cannula needle, osthatflaxnand a cylinder. LeinWith your hand, treat the skin with a cotton ball moistened with alcohol.

Note.*First, a large area is treated, approximately 10x10 cm, then 5x5 cm - the injection site.*

Hold the ball under the fifth finger of your left hand.

4. Grasp the skin fold at the injection site with the first and second fingers of the left hand from above (Fig. 28)

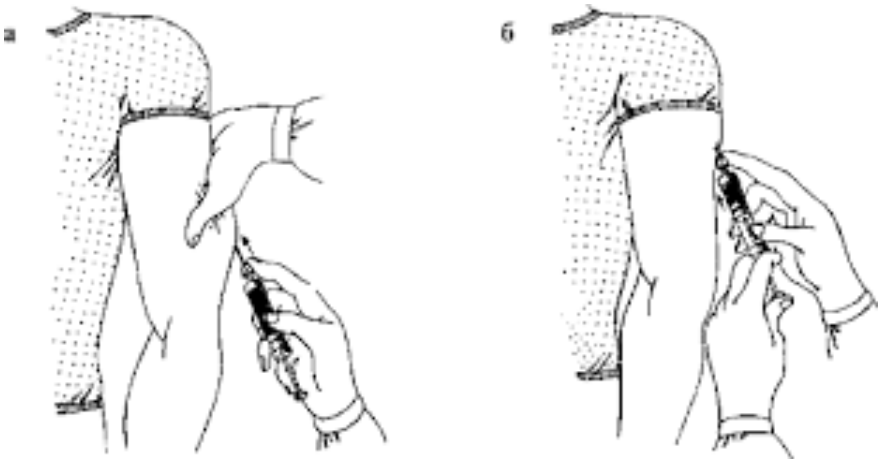


Fig.28.subcutaneous injection.

5. Insert the needle into the base of the fold at an angle of 450 to the skin, with the needle cut upwards, to a depth of 2/3 of the needle, holding the cannula with the second finger of the right needle. Move your left hand to the plunger of the syringe and inject the medicine: the first finger is on the plunger, the second and third are on the cylinder. Enter the medicine slowly and not completely. Ask the patient how he is feeling. At the slightest deterioration in the patient's condition, the administration of the drug is stopped, the patient must be provided with emergency care.
6. At the end the injection of the drug, put a ball moistened with alcohol on the puncture site, press it with the index finger of the left hand and quickly remove the needle, holding it by the cannula.

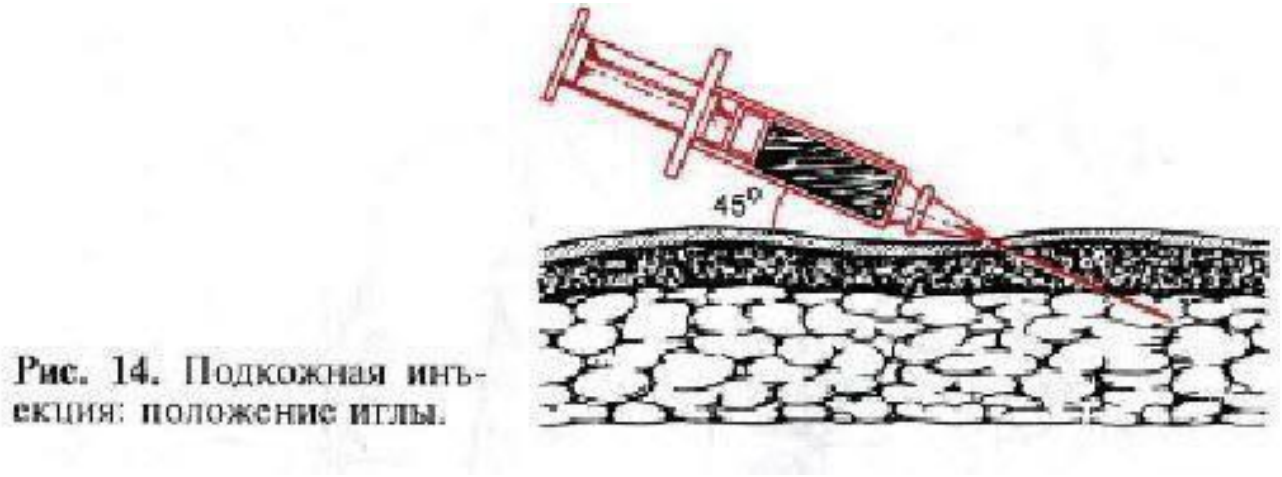


Рис. 14. Подкожная инъекция: положение иглы.

Fig.29.Hypodermic injection needle position.

7. Ask the patient to hold the ball for 5 minutes, not rubbing the injection site!

Note.*With a needle length of 1.25 cm or less (in insulin syringes), it is injected at an angle of 900.*

End of procedure.

1. Place a cotton ball in a 3% solution of chloramine for 1 hour, a disassembled syringe and a needle into container No. 1 to get rid of blood residuesandmedicines.
2. Remove gloves, place in disinfectant solution. Wash and dry hands.
3. Help the patient to take a comfortable position, assess the patient's response to the procedure.
4. Make a note of the procedure done on the appointment sheet.

Control questions for topic number 9.

1. What are the rules for prescribing drugs in medical institutions.
2. How and where medicines are stored in hospital departments.
3. What methods of drug administration do you know?
4. How is the external administration of drugs carried out.

5. What devices for inhalation drug administration do you know? What are their benefits?

6. What are the advantages and disadvantages of parenteral administration of drugs.

7. What complications can occur with parenteral administration of drugs.

8. What rules you need to know when parenteral administration of drugs.

9. How to provide emergency care for anaphylactic shock.

10. Standard procedure for instillation of drops in the ear.

11. Standard of procedure is a set of medicinal substance from an ampoule or vial.

12. Standard of procedure for subcutaneous drug administration.

Topic number 10.

resuscitationEvents.

a) Signs of clinical, biological death. b) Artificial lung ventilation.
c) Indirect cardiac massage in adults, the elderly.

The student needs to be aware of:

1. Signs of clinical, biological death.
2. Conditions and methods of artificial lung ventilation.
3. Conditions and methods of conducting indirect heart massage.
4. Rules for the treatment of corpses.

The student must have the skills to:

1. Determination of the presence of airway obstruction.
2. Definitions of cardiac arrest.
3. Definition of the state of clinical death.
4. Carrying out artificial respiration.
5. Conducting an indirect heart massage.
6. Statements of biological death.

A branch of clinical medicine that studies various aspects of the revitalization of the body and develops methods for the treatment and prevention of termi-

mental states, is resuscitation. Resuscitation measures are carried out in many diseases and conditions: sudden cessation of cardiac activity (acute myocardial infarction, electrical trauma, etc.), acute respiratory arrest (foreign body in the trachea, drowning, etc.), poisoning with various poisons , severe injuries, blood loss, acute hepatic

and kidney failure, etc.

Resuscitation of patients is not carried out when more than 8 minutes have passed since the moment of clinical death, if there are irreversible damage to vital organs, if all compensatory reserves of the body have been exhausted.

States that border between life and death are called ***terminal.***Dying is not only a qualitative leap - a transition from life to death, but also a more or less long process that goes through a series of successive stages (Fig. 1). When dying, the functions of organs and systems are switched off in a certain sequence. Given that changes incompatible with life develop gradually, there are scientific reasons for intervening in this process in order to combat unreasonable death. The last stages of life - the stages of dying - are:


Rice. one.

- ❖ preagonal state;
- ❖ terminal pause;

- ❖ agony;
- ❖ clinical death.

preagonal state.It is characterized by depressed consciousness, the skin becomes pale or cyanotic, but eye reflexes are preserved. Violated: gas exchange in the lungs (the appearance of hypoxia and Cheyne-Stokes respiration); blood circulation - blood pressure drops to 60 mm Hg. and below, the pulse is thready or not palpable, tachypnea and tachycardia are replaced by bradypnea and bradycardia, a lack of circulating blood volume develops; acid-base state - metabolic acidosis develops; electrolyte balance - hyperkalemia. As a result, cerebral disorders begin to be registered: there is a progressive inhibition of the electrical activity of the brain and stem reflexes. The preagonal state can last for several hours, and sometimes days. The preagonal period ends with a terminal pause. (Fig.2).

Fig.2.

Terminal pause.It is characterized by a sudden cessation of breathing, a sharp depression of the activity of the heart, the extinction of the bioelectrical activity of the brain, the extinction of corneal and other reflexes.
The duration of the terminal pause is 5-10 seconds to 4 minutes.

Agony.It is characterized by residual manifestations of the functional abilities of a living organism with the aggravation of those disorders that began in the preagonal phase.During agony, a sudden activation of stem centers can sometimes be observed, which leads to a short-term increase in blood pressure, restoration of sinus rhythm, increased respiration, electrical activity of the brain, even a short-term restoration of consciousness. In the agonal period, there is a sharp pallor of the skin, acrocyanosis, blood pressure begins to decrease to critical numbers - 20 - 40 mm. rt. Art., cardiac activity slows down, the pulse on the peripheral vessels is not palpable, heart sounds become muffled, breathing is inadequate, rare, convulsive (rhythm is disturbed). Pain sensitivity disappears, reflexes are lost, pupils dilate, involuntary urination and defecation occur, body temperature decreases. Facial features are sharpened - the face of Hippocrates (Fig. 3). Agony ends the floorny oppression of all vital functions. And comes clinical death.

Fig.3.The patient is in a state of agony.

clinical death.A reversible stage of dying lasting 5-6 minutes, during which external manifestations of the organism's vital activity disappear, but irreversible changes in organs and tissues do not yet occur. A set of measures to restore the life of the target

consistentprecisely during this period, since a longer time casts doubt on the effectiveness of cerebral resuscitation.

The cerebral cortex, as the most sensitive organ, may be so damaged that it will never function normally again. In a word, the death of the cortex (decortication) will occur, as a result of which its connection with other brain structures will be disconnected and “a person will turn into a vegetable”.

The duration of the period of clinical death is limited by the resistance to hypoxia of precisely the cells of the cerebral cortex. Under normothermic conditions, the time interval does not exceed 5 minutes. The duration of clinical death, in addition to the timing of the absence of blood circulation, is significantly affected by the nature and duration of the previous period of dying (pre-agony, agony). If the patient has been in severe hypotension for a long time (for example, as a result of blood loss or heart failure), then revival, even a few seconds after circulatory arrest, may be impossible, since all compensatory possibilities have already been exhausted by this time. Conversely, with a sudden cardiac arrest in a healthy person (electrical injury), the duration of clinical death increases.

can no longer be called life."(V.A. Negovsky) (Fig.4).

To establish the fact of clinical death, the presence of three signs is sufficient:

BUT.**Lack of consciousness.**Loss of consciousness occurs 10-15 seconds after circulatory arrest. Maintaining consciousness excludes circulatory arrest (Fig. 5).

Fig.4.

Fig.5.Assessment of consciousness.

***B.*No pulse in the carotid arteries.**This testifiesabout the termination of blood circulation in the body.

***AT.*Lack of breathing or the presence of agonal type breathing.**Respiratory arrest is indicated by the absence of respiratory excursion of the chest and abdominal wall. The agonal type of breathing is characterized by periodic convulsive contractions of the respiratory muscles. However, at the same time, the inspiratory and expiratory muscles contract simultaneously, so ventilation of the lungs does not occur. If at this moment not

start artificial respiration, then agonal breathing will turn into apnea in a few seconds.

G. **Pupil dilation with their loss of reaction to light** an additional sign of the onset of clinical death. This symptom appears 45-60 seconds after the cessation of blood circulation through the brain.

Fig.6

To start basic cardiopulmonary resuscitation, the presence of three main signs of clinical death is sufficient (Fig.6).

Resuscitation assistance must begin immediately. It is performed in case of clinical death. Primary resuscitation measures are actions taken to remove the patient from acute conditions that directly threaten his life. Cardiopulmonary resuscitation is a part of primary resuscitation measures and includes a set of sequential active actions to restore impaired respiratory and circulatory functions. During cardiopulmonary resuscitation nit is necessary to adhere to a strict sequence. To memorize the sequence of primary resuscitation

events use ABC - the Safar rule. The classic resuscitation sequence was formulated by P. Safar (“Cardiopulmonary and Cerebral Resuscitation”, Peter Safar, Nicholas J. Beecher, 1997) (Figure 7).

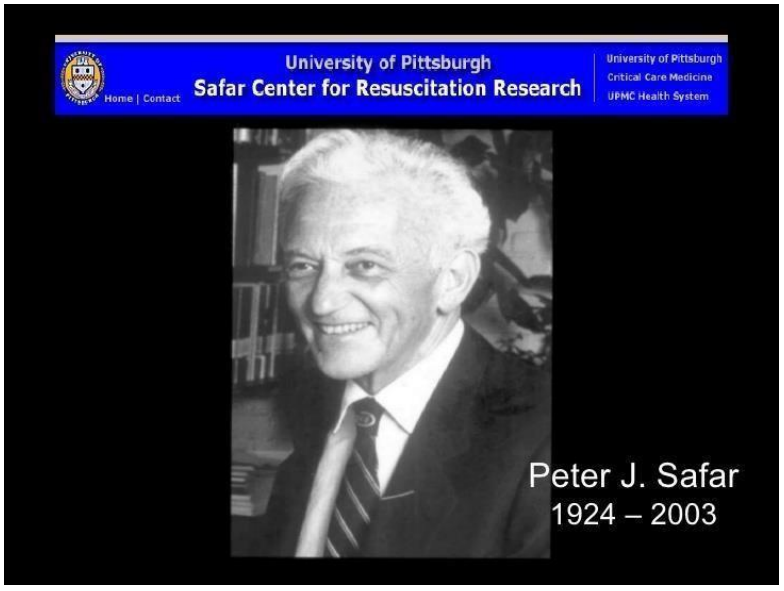


Fig.7

A. (Airway) Restoration and maintenance of airway patency.

V. (Breathing) Artificial ventilation of the lungs.

C. (Circulation) Cardiac resuscitation - indirect heart massage.

Recommendations for CPR once every five years are refined and optimized based on generalized international experience. Currently, the 2010 CPR protocol prioritizes the restoration of an effective level of blood circulation and timely defibrillation. Therefore, the procedure for providing resuscitation has undergone significant changes, the most important of which is the change of CPR steps from "A-B-C" to the sequence "C-A-B" (Fig. 8).

C - (circulation) - closed heart massage.

A - (airways) - ensuring the patency of the respiratory tract. B - (breathing) - artificial ventilation of the lungs.

Fig.8.

As soon as possible, it is recommended to carry out defibrillation as early as possible, both in a hospital and outside a medical institution, and the transformation of the “C-A-B” algorithm into “DC-A-B”, where D is (defibrillatio). Timely defibrillation in combination with high-quality CPR is a necessary condition for increasing the survival rate in case of sudden cardiac arrest (Fig. 9). Therefore, every effort must be made to reduce the interval between cardiac arrest and defibrillation.

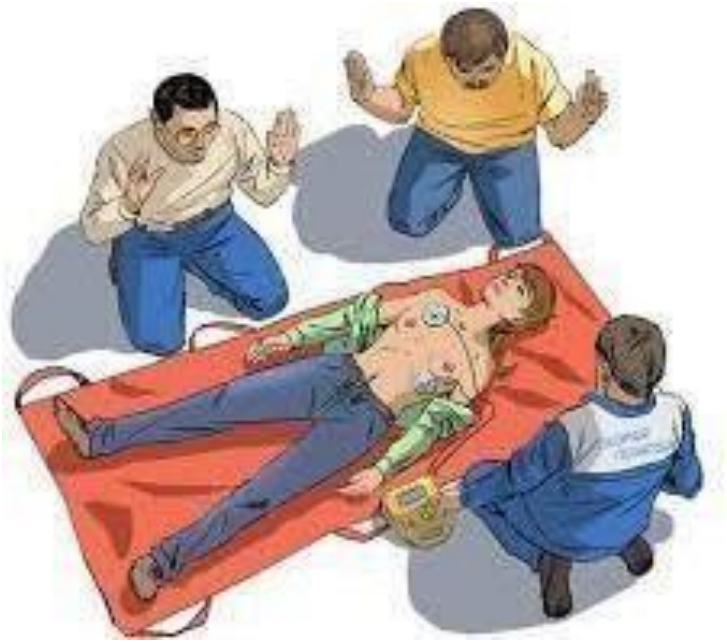


Fig.9.Defibrillation of the heart.

The new recommendations attach great importance to the earliest possible and technically correct performance of chest compressions and suggest, when resuscitating adults, put their hands on the geometric center of the chest, the depth of compression should be - 5 cm, the movements are pendulum-like (not jerky) Fig.10 , 11, 12 with a frequency of 100 per minute. The ratio of the frequency of chest compressions and mechanical ventilation as 30:2, while resuscitation it is permissible to neglect the artificial breathing, giving preference to a properly conducted closed heart massage.

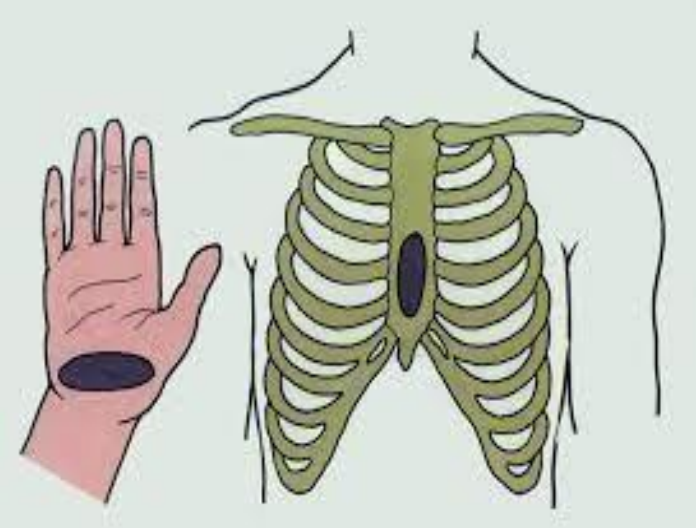


Fig. 10. Places of correct contact between the arm and chest.

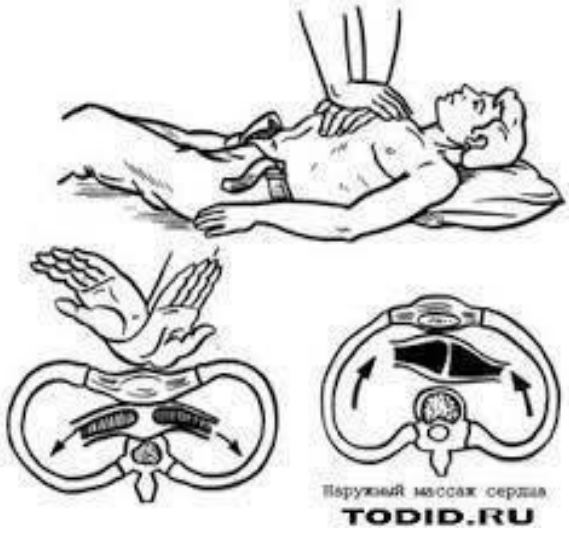


Fig.11.Chest compression.

Fig.12.chest compressioncells are held on outstretched arms

A - (airways)- Ensuring the patency of the respiratory tract.

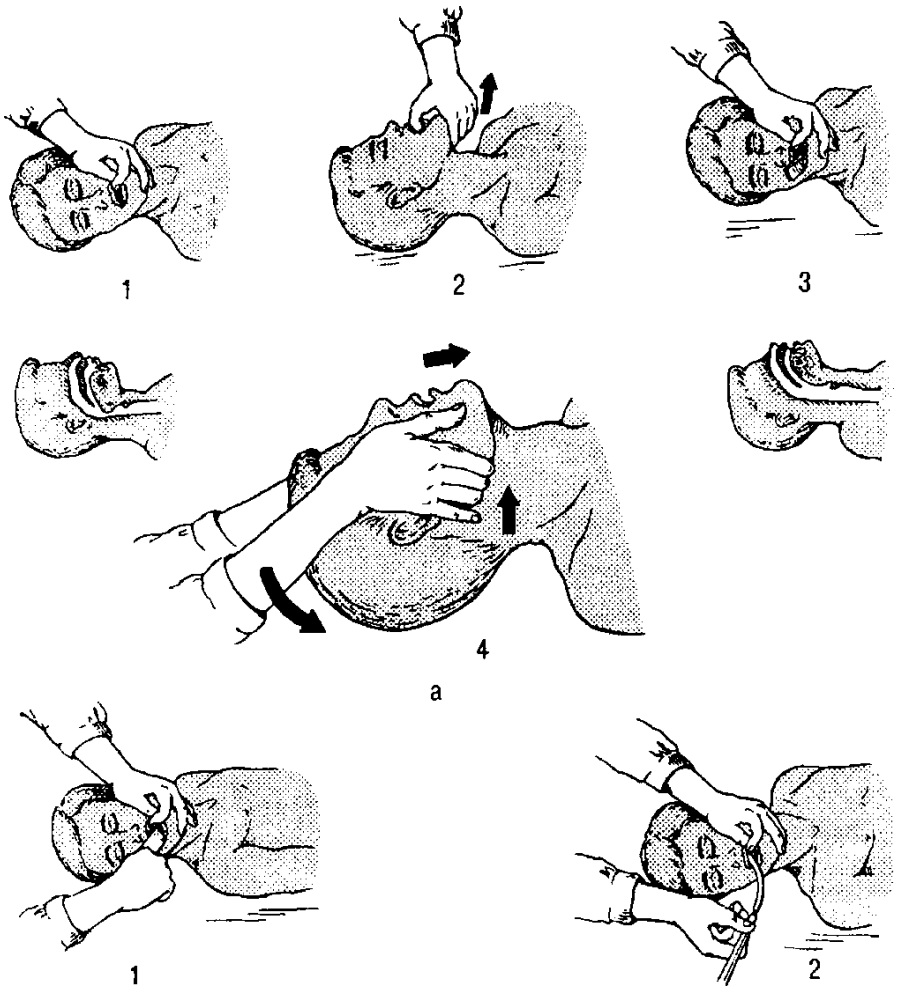
1. Tilt the patient's head back. Place the palm of one hand under the neck, with the other hand placed on the forehead, tilt the patient's head back. The axis of rotation passes through the atlanto-occipital joint.

Head tilt is contraindicated in cases of suspected cervical spine injury.

2. Bring forward the lower jaw. To do this, the person located behind the head covers the head with both hands, the palms of the hands press the patient's ears, the end phalanges of the fingers fix the lower jaw at its corners. Moving forward and upward, the lower jaw is advanced (Fig. 13).

Removing the lower jaw is a must! Regardless of the type of artificial lung ventilation (mouth to mouth or mouth to nose).

1) Wrap your finger in a gauze or handkerchief. Open the patient's mouth, remove foreign bodies and mechanically clean the mouth and throat (Fig.14):



Rice. 13.Ensuring airway patency.

2) insert the thumb of one hand into the patient's mouth and press the tongue to the bottom of the mouth and pull the lower jaw;
3) hold the index finger of the other hand along the inner surface of the cheek deep into the throat to the base of the tongue;
4) bending the finger with a hook, clean the oral cavity.

Rice. fourteen.Mechanical removal of foreign bodies from oral cavity.

Artificial respirationis a replacement of air in the lungs of a patient, carried out artificially, in order to maintain gas exchange when the natural one is impossible or insufficient. First, it is necessary to ensure the patency of the respiratory tract, which is achieved by tilting the patient's head with the maximum protrusion of the lower jaw forward. The patient is laid horizontally on the back, neck, chest, the patient's stomach is freed from clothing. when using the mouth-to-nose method, the caregiver closes the patient's mouth and, after a deep breath, exhales energetically, clasping the patient's nose with his lips (Fig. 15, 16, 17). The criteria for the correct implementation of artificial respiration are chest excursion at the time of artificial inspiration and passive exhalation. Artificial respiration can also be performed using the Ambu bag (Fig. 18).

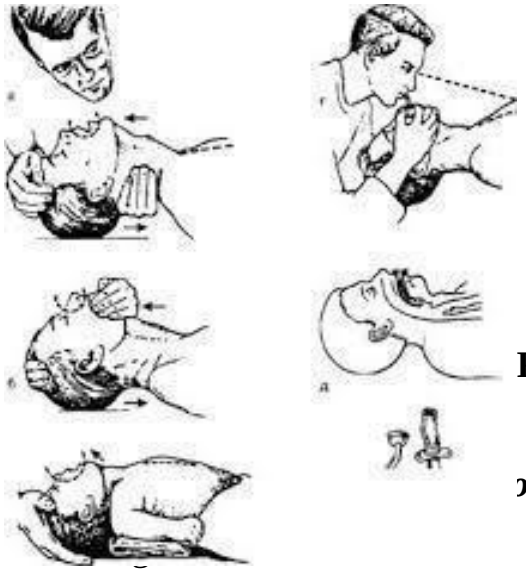


Fig.15.Pulmonary ventilation "mouth to nose".

ɔn and circulationevaluated according to the

Pupil constriction.

- Appearance of adnexal pulsation on the carotid (femoral) arteries.
- Change in skin color (gradual disappearance of cyanosis and pallor).

Fig.16.Pulmonary ventilation "mouth to mouth".

Fig.17.Double cardiopulmonary resuscitation.

Contraindications for carrying outcardiopulmonary resuscitation:

✓ biological, social or clinical death resulting from incurable diseases with a long course;

- ✓ more than 25 minutes have passed since the moment of circulatory arrest under normothermic conditions;

Fig.18.Ambu bags.

- ✓ the patient had previously legally recorded his reasoned refusal from cardiopulmonary resuscitation.

Metabolic disorders during circulatory and respiratory arrest, as well as during emergency resuscitation, lead to insufficiency of the functions of various organs (brain, heart, lungs, liver, kidneys), which develop after stabilization of the parameters of the main vital systems. This complex of changes in the body is called

"***post-resuscitation diseases.***

biological deathoccurs after clinical death in cases where cardiopulmonary resuscitation is not performed or resuscitation measures are stopped. Biological death is a necrotic process of all tissues, starting with brain neurons, the necrosis of which occurs within 1 hour after circulatory arrest, and then the heart, kidneys, lungs, liver, the necrosis of which occurs within 2 hours

after circulatory arrest. skin necrosis occurs only after a few hours or even days.

Reliable signs of the onset of biological death are post-mortem changes:

1. **Decrease in body temperature (to the level of the environment).**
2. **Dead spots.**
3. **Rigor mortis.**

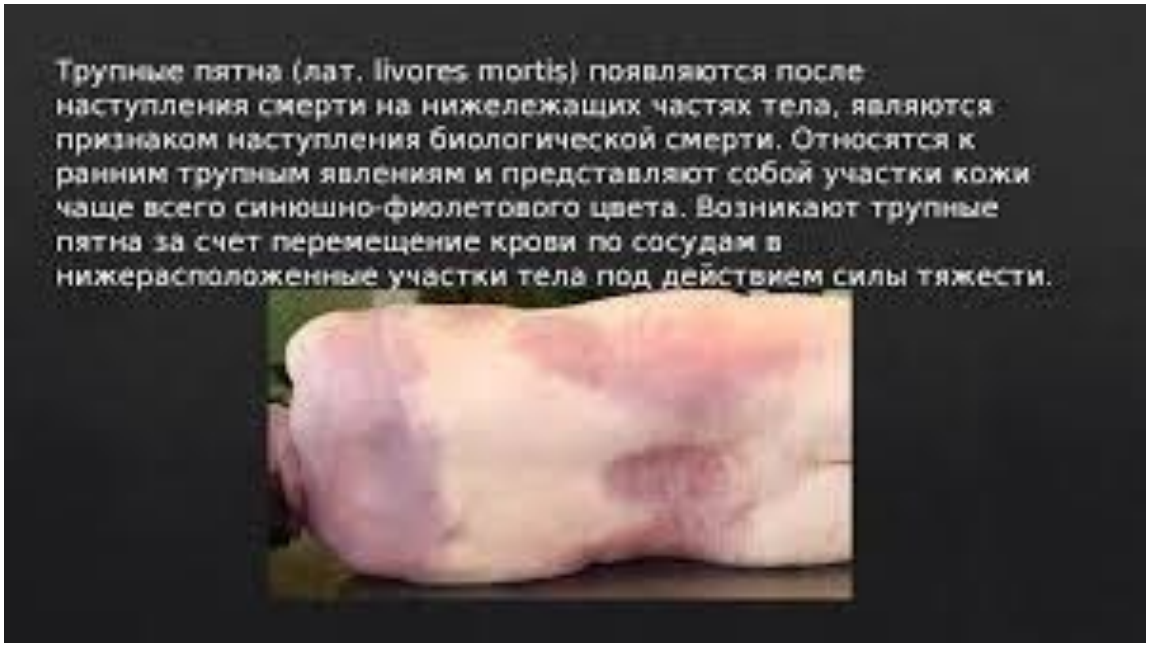


Fig.19.Dead spots.

*Corpse spots (Fig. 19) - a kind of skin coloring*due to draining and accumulation of blood in the lower parts of the body. They begin to form 2-4 hours after the cessation of cardiac activity. The degree of their severity depends on the rate of death of the organism.

Usually cadaveric spots have a blue-violet or crimson-violet color. The initial stage of the formation of cadaveric spots is post-mortem hypostasis (up to 14 hours). When pressing on the cadaveric spot in the stage of hypo-

stasis, it disappears and is restored again after the load is removed after a few seconds. Formed cadaveric spots (after 14 hours) do not disappear when pressed.

Rigor mortis (Fig. 20) -a kind of compaction and shortening of the skeletal muscles, which creates an obstacle to passive movement in the joints. Rigor mortis manifests itself 2-4 hours after the cessation of blood circulation, reaches a maximum by the end of 1 day and spontaneously resolves on 3-4 days.

Fig.20.Signs of biological death.

Rice. 21.Eye signsbiological death: "herring shine" of the cornea, "cat's eye".

Practical skills.

Artificial ventilation of the lungs (Fig. 22).

Rice. 22

1. When performing mouth-to-mouth artificial respiration, to ensure the patency of the respiratory tract, tilt the patient's head back, tightly pinch his nose, after a deep breath, the resuscitator, tightly clasping the patient's lips with his lips, must forcefully blow air into his respiratory tract . After the mouth is taken away, a passive exhalation occurs, the next breath should be taken after the patient's chest is lowered to its original position.

2. When it is not possible to open the patient's mouth or ventilation of the lungs through the mouth is impossible for some reason, apply the method of artificial respiration "mouth-to-nose": throw back the patient's head, close the patient's mouth as tightly as possible, blow in air with force into the patient's airways through the nose

Indirect cardiac massage.

Indications:clinical death.

Mandatory conditions:follow the sequence of cardiopulmonary resuscitation: restore airway patency, then indirect heart massage should be combined with mechanical ventilation, the push is made during

the patient's expiration time.

Manipulation progress.

1. Place the patient on a hard surface.
2. Loosen tight clothing.
3. Kneel on the side of the victim, near the chest.
4. Place one hand with the proximal part of the palm on the lower third of the sternum, the other on its back surface.
5. Ensure maximum extension in the wrist joints in the form of a "butterfly".
6. Straighten your arms at the elbow joints.

Fig.23.Indirect cardiac massage.

1. Press on the lower third of the sternum so that the displacement of the sternum in depth is 3.8-5 cm.
2. Maintain a constant up-down rhythm with no pauses between compressions.

3. Combine 15 compressions for 9-11 seconds with two breaths into the casualty if one person is doing the resuscitation.
4. Combine 4-5 compressions with one breath into the casualty if two people are doing the resuscitation.
5. Control the effectiveness of indirect heart massage after 1-2 minutes, by determining the pulse on the carotid artery and pupillary reaction, until the appearance of a pulse and the onset of breathing, or until the appearance of biological death.
6. In the presence of a pulse and breathing, keep the victim's airways open until admission to the intensive care unit.

When deciding whether to stop or refuse to perform cardiopulmonary resuscitation and ascertain the death of a patient (Fig. 24), a doctor or paramedic must act within the law. The main legal document in this case are:

1. "Fundamentals of the legislation of the Russian Federation on the protection of the health of citizens." Adopted on July 22, 1993 by Resolution of the Supreme Council of the Russian Federation No. 5489-1
   Art.32. Consent to medical intervention Art.33
   Refusal of medical intervention.
   Art. 45. Prohibition of euthanasia.
   Art.46. Determining the moment of death: the statement of death is carried out by a medical worker (doctor or paramedic). The criteria and procedure for determining the death of a person, the termination of resuscitation measures are established by the regulation approved by the Ministry of Health of the Russian Federation.
2. Temporary instructions for ascertaining death. Appendix to the order of the Ministry of Health of the Russian Federation of 10.08.93. No. 189.

3. Draft "Regulations on the criteria and procedure for determining the moment of death of a person and the termination of resuscitation measures." (Described in a letter from the Ministry of Health of the Russian Federation).

Rice. 24.The corpse of a patient sent to the morgue.

Control questions for lesson No. 10.

1. Diagnosis of clinical death.
2. Statement of biological death.
3. Technique of artificialmouth-to-mouth breathing.
4. Technique of artificialmouth-to-nose breathing.
5. Technique of indirect heart massage.
6. Legal documents governing resuscitation.

Test questions.

1. The work of the admission department should take place in the following sequence:

BUT.Registration of patients, sanitary and hygienic treatment, medical examination.

B.Registration of patients, medical examination, sanitary and hygienic treatment.

AT.Sanitary and hygienic treatment, medical examination, registration of patients.

2. The sanitary checkpoint of the reception department consists of the following rooms:

BUT.Lookout.

B.Dressing room.

AT.Bath-shower room and a room where patients dress.

G.All of the above.

3. Sanitary and hygienic treatment of the patient includes:

BUT.Disinsection.

B.Hygienic bath, shower or wiping the patient. B. Dressing the patient in clean hospital linen and clothes. D. None of the above.

4. The water temperature for the hygienic bath should be:

BUT.27-29oC.

B.40-43oC.

AT.Approach body temperature (34-36°C) or be higher (37-39°C).

5. If pediculosis is detected in the scalp of a patient in the admission department of a hospital, the actions of the medical staff are as follows:

BUT.Refuse to hospitalize the patient.

B.Wash the patient withsoap in the bathroom.

AT.Treat the head with soap "K" and comb out with a thick comb.

G.Treat the scalp with pediculocides.

6. Body lice were found in the admission department of a patient referred for hospitalization. Necessary:

BUT.Send clothes on the pest control.

B.Refuse to hospitalize the patient.

AT.Re-wash the patient with soap in the bath, send clothes and underwear to the pest control chamber.

G.Despite the patient's protests,head shaving.

7. The medical and protective regime includes:

BUT.Ensuring the mode of sparing the psyche of the patient.

B.Strict adherence to internal regulations.

AT.Providing a regime of rational physical activity.

G.Everythinglisted.

8. Responsibilities of the junior nurse of the department include:

BUT.Only cleaning of wards, corridors and utility rooms.

B.Only the morning toilet for seriously ill patients.

AT.Only feeding the seriously ill.

G.None of the above.

9. During quiet hours, you are allowed to:

BUT.Do the cleaning in the room.

B.Watch TVin the room or in the hall.

AT.Relatives visit the sick.

G.None of the above.

10. Measurement of the patient's height should be carried out under the condition:

BUT.In shoes and headwear

B.With shoes but noheaddress.

AT.Invite the patient to take off their shoes and stand on the platform of the stadiometer.

G.Invite the patient to stand against the wall, pressing his heels.

11. What types of transportation of patients to the department exist:

BUT.On foot.

B.On a wheelchair.

AT.On a stretcher.

G. All of the above.

12. The method of transporting the patient is determined.

BUT.The length of his stay in the hospital.

B.The nature of the disease.

AT.The severity of the condition.

G.Purpose of transportation.

13. To transport a patient on a recumbent gurney, it is necessary:

BUT. Two paramedics.

B. Three or more healthcare workers.

AT. One health worker.

G. All wrong.

14. The change of linen for the patient is carried out:

BUT.At least once a week.

B.At least oneonce every two weeks.

AT.Every three days.

G.As it gets dirty.

15. Washing the patient in the hospital should be carried out:

BUT.Every day.

B.At least oneonce a week.

AT.1 time in 10 days.

G.1 time per month.

16. When changing the patient's clothes:

BUT.Clothes are removed first from the diseased limb, then from the healthy one.

B.Clothes are removed first from a healthy limb,and then with the patient.

AT.The order in which clothes are removed from the limbs does not matter.

G.Everything is wrong.

17. The appearance of bedsores is evidence of:

BUT.Incorrect treatment prescribed by a doctor.

B.Inadequate patient care. B. Improper nutrition of the patient. D. None of the above.

18. Rubber Vessel Applicable:

BUT.For debilitated patients.

B.Atthe presence of bedsores.

AT.With incontinence of feces and urine.

G.In all of the above cases.

19. For the treatment of the nasal cavity use:

BUT.Dry turundas.

B.Turunds moistened with a solution of furacilin.

AT.Turunda moistened with vaseline oil.

G.Tweezers.

20. When treating eyes:

BUT.Use different tampons.

B.Movements are made from the sidesto the center.

AT.Swabs must be sterile.

G.Swabs moistened with 2% solution of boric acid are used.

21. What should be the ratio of proteins, fats and carbohydrates in the diet of patients?

BUT.This ratio is determined by the proportion 1:1:4.

B. It is necessary to increase the content of proteins in the diet.

AT. The ratio of proteins, fats and carbohydrates should be determined by the nature of the disease.

22. Is it rational to increase the energy value of the diet by increasing the protein content in it?

BUT.Yes, because 1 g of protein provides the body with 4.1 kcal.

B.No, because 1 g of proteins gives significantlyless energy than 1 g of fat.

AT.No, since proteins should be used primarily as a plastic material.

23. In what cases are artificial feeding of patients through a nasogastric tube used?

BUT.For burns, inoperable tumors of the esophagus and pharynx.

B.After operationson the esophagus.

AT.For swallowing disorders.

G.When unconscious.

24. In case of urolithiasis, depending on the chemical composition of the stones, diet No. is prescribed:

BUT.6 or 14.

B.5 or 12.

AT.7 or 11.

G.ten.

25. What can be entered through the tube?

BUT.Sou

p. B.

Bouillon.

V. Sok.

G.Cream.

D.Products on the table 0.

26. Temperature stimuli reflexively affect:

BUT.Decreased blood clotting.

B.The width of the lumen of blood vessels, the sensitivity of the body,muscle tone.

AT.Smooth muscles of internal organs, central nervous system, providing a calming effect.

G.bowel function.

27. Active ingredient of mustard plasters:

BUT.Turpentines

. B. Hot water. V.

Ihtiol.

G.allyl oil.

30. Frequency of 10-minute breaks when applying an ice pack:

BUT.Every 30 minutes.

B.At every patient visit.

AT.Every 5 minutes.

G.Every hour.

31. How many layers are in a warming wet compress?

BUT.One layer.

B.4 layers.

AT.The bigger, the better.

G.3 layers.

32. Indications for setting a wet warming compress.

BUT.Infiltrates.

B.Pain in the joints.

AT.Skin diseases, fever (2nd period).

G.Stomach ache.

33. Change wet cold compress produced through:

BUT.2-3 min.

B.Once it dries.

AT.As it warms up.

G.After 10 - 20 minutes,with an interval of 5 min.

34. Contraindications to setting a wet warming compress.

BUT.Infiltrates.

B.Stomach ache.

AT.Skin diseases, fever (2nd period).

G.bruiseson the first days.

35. Indications for the use of an ice pack.

BUT.Pain in the liver, kidneys.

B.Severe headaches. B.

Internal bleeding. G. Bruises

on the first day.

36. Indications for the use of a heating pad:

BUT.Abscesses after

injections. B. Internal bleeding.

V. Chill.

G.Infiltrates after injections.

37. Water, what temperature is shown during a cleansing enema.

BUT.Hot.

B.Cool.

AT.Body temperature.

G.Optionalsick.

38. How long does a bowel movement occur after an oil enema?

BUT.After 15 - 20 minutes.

B.In 2-3 hours.

AT.After 10 - 12 hours.

G.In one day.

39. The introduction of a gas outlet tube is indicated for:

BUT.flatulence.

B.delaystool for more than three days.

AT.Acute intestinal obstruction.

G.Postoperative intestinal paresis.

40. The position of the patient during the introduction of the vent tube:

BUT.On the left

side. B. On the

right side. B. On

the back.

G.On the stomach.

41. The gas outlet tube is inserted to a depth of:

BUT.3-4 cm.

B.5 - 6 cm.

AT.20 - 30
cm.

G.10 - 12 cm.

42. Name the types of enemas:

BUT.Cleansing.

B.Drip.

AT.Food.

G.Siphon.

43. Oil enemas are used:

BUT.For feeding.

B.With persistent constipation.

AT.For anal fissures.

G.With tumors of the colon.

44. To take a swab from the throat is used:

BUT.Sterile glass rod.

B.Cotton swab wrapped around tweezers.

AT.Sterile brush.

G.Tweezers.

45. For a general sputum analysis, the following is sent:

BUT.Daily sputum.

B.Sputum collected duringthree days.

AT.Fresh morning sputum collected in a clean spittoon.

G.Evening wetness.

46. For microbiological analysis of sputum is sent:

BUT.Daily sputum.

B.Fresh morning phlegm collected in a cupPetri with nutrient medium.

AT.Evening wetness.

G.Fresh morning sputum collectedinto a clean spittoon.

47. How is urine collected for examination according to the Nechiporenko method?

BUT.Urine obtained in the middle of urination.

B.Every day during the daythree hours.

AT.Once every 3 hours.

G.1/50 of the dailyurine

48. How is urine collected for research according to Kakovsky - Addis?

BUT.The average portion of urine obtained during catheterization.

B.During the day

AT.Urine obtained in the middle of urination.

G.Urine received inend of urination.

49. A study of feces for occult blood is performed for all diseases except:

BUT.Peptic ulcer of the

stomach. B. Cancer of the

stomach, intestines. B.

Hemorrhoids.

G.Peptic ulcer of the duodenum.

50. Preparation of the patient for x-ray examination of the esophagus, stomach, 12 - duodenum:

BUT.In the evening and in the morning - a cleansing enema.

B.In the evening cleansing enema.

AT.In the morning - on an empty stomach.

G.In the morning- siphon enema.

51. What is an x-ray contrast study of the kidneys and urinary tract called?

BUT.Irrigoscopy.

B.Chromocystoscopy. B.

Excretory urography. G.

Tomography.

52. What should precede artificial respiration?

BUT.Direct cardiac massage.

B.Indirect massagehearts.

AT.Restoration of airway patency.

G.Disinfection of the oral cavity of the patient.

53. Why is it necessary to tilt the head of the patient during artificial respiration?

BUT.For the convenience of the rescuer.

B.To create a good seal between the mouth of the resuscitatorand mouth (nose) of the patient.

AT.To ensure the patency of the airways.

G.In order to create the bestconditions for circulation.

54. What position should the resuscitator's hands be in during chest compressions?

BUT.Maximally extended at the wrist and elbow joints.

B.Slightlybent at the elbow and wrist joints.

AT.Slightly bent at the wrists and maximally extended at the elbows.

G.Grasp the chest on both sidescell.

55. How to check the correctness of artificial respiration?

BUT.During artificial respiration, a pulse should appear.

B.During artificial inhalation, the chest should expand, and during passive exhalation, it collapses.

AT.During artificial inhalation, puffing of the cheeks is observed.

G.During artificial respiration, cyanosis of the skin should remain.

56. In what cases is direct cardiac massage used?

BUT.With the ineffectiveness of indirect heart massage.

B.If cardiac arrest occurs during chest surgery.

AT.With the appropriate preparedness of resuscitators.

G.atthe presence of tools to open the chest.

Answers to test tasks.

1.B; 2. G; 3.A, B, C; 4.B; 5.B; 6. B; 7.G; 8.A, B, C; 9.G;10.B; 11.G; 12.B; 13.A; 14.A, D; 15.B; 16.B; 17.B; 18.G; 19.B; 20.A, B, C, D; 21.A; 22.B; 23 V, G; 24.A; 25.B, C, D; 26. B, C; 27.G; 28.A; 29.G; 30.A, B; 31.A, D; 32.B, C, G; 33.B, C, D; 34.V, G; 35.B; 36.B; 37.B; 38.B; 39.B; 40.A, B, D; 41.B; 42.B; 43.B; 44V; 45.A; 46.B; 47.B; 48V; 49.B; 50.B; 51.B; 52.B; 53.B.

Answers to situational tasks.

Situational task No. 1

A 60-year-old patient with community-acquired lower lobe pneumonia is on bed rest for a week in the pulmonology department.

leniya.

1. How to improve patient care?
2. What are the main indicatorsneed to be controlled?

Situational task number 2

Patient, 19 years old. Parents suffer from pulmonary tuberculosis. During the last three years the patient developed weakness, subfebrile temperature, cough with a small amount of sputum.

1. What research should be done for the patient?
2. What method is used to collect sputum to detect Mycobacterium tuberculosis?

Situational task No. 3

A patient with suspected gastrointestinal bleeding was delivered to the emergency department (3 hours ago there was vomiting of contents such as “coffee grounds”). Feels subjectively satisfactory, can move independently.

1. How to transport the patient to the department?

Situational task number 4

A patient addressed the nurse on duty with complaints of pain in the epigastric region, vomiting of a black mass.

1. Tactics of a nurse?

Situational task number 5

The tourist was bitten by a tarantula. At the site of the bite, there was intense pain, skin hyperemia, pronounced edema and paresthesia.

1. What is the first aid needed in this case?

Situational task number 6.

Blood was taken from a young man's vein for analysis. Suddenly he turned pale, broke out in a cold clammy sweat, lost consciousness and fell from his chair.

1. Explain the patient's condition.
2. What is first aid?

Situational task number 7

An 18-year-old patient, while taking blood from a vein at the feldsher-obstetric station, lost consciousness for a short time, pallor of the skin, increased sweating. BP 80/60 mmHg Pulse 60 bpm. In a horizontal position, the patient's consciousness and blood pressure quickly and completely recovered.

1. Determine the emergency condition that the patient has developed.

2. Make an algorithm for diagnostic and therapeutic measures for emergency care.

Situational task number 8

Patient E., aged 43, who was admitted to the clinic with a pathology of the gastrointestinal tract, was scheduled for FGDS. On the morning of the study, the patient reported that he had taken the pills and washed them down with tea.

1. What should a nurse do in this situation?

Samples of responses to situational tasks.

Task number 1.*Answer: 1.*Patients with lung diseases should be in bright rooms, spacious, well-ventilated rooms with a centralized supply of oxygen. It is necessary to control the daily morning toilet, to prevent bedsores. 2. Establish control and measurement of daily sputum production, counting the respiratory rate.

Task #2*Answer;*1. The patient needs to examine sputum for mycobacterium tuberculosis. 2. Sputum is collected within three days, enriched by flotation.

Task #3*Answer:*The patient must be transported only on a stretcher.

Task #4*Answer:*It is necessary to lay the patient with a raised head end, apply cold to the epigastric region, allow pieces of ice to be swallowed, give 10% calcium chloride 20.0 ml to drink. Call a doctor.

Task #5*Answer:*It is necessary to apply cold to the bite site in order to cause vasospasm and prevent the penetration of poison into the blood.

Task number 6*Answer:* The patient has fainted. It is necessary to lay the patient on his back with a raised leg end of the torso. Unfasten the collar of clothes, give an influx of fresh air, inhalation of ammonia.

Task number 7*Answer:* 1. Fainting. 2. Measure blood pressure, pulse. Lying position. If hypotension persists for more than 3 minutes. - adrenaline 0.3 ml intravenously.

Task number 8*Answer:*The patient needsreschedule the study to another day.

Recommended literature:

Main literature:

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2. General care of patients in a therapeutic clinic. Oslopov V.N., M. "GEOTAR - Media", 2006.

3. General patient care. Turkina N.V., Filenko A.B., Moscow, 2007.

Additionalliterature:

1. Methodological recommendations for practical exercises, independent work of students in general care for patients. Totrov I.N., Khetagurova Z.V. Medoeva A.A. et al., Vladikavkaz, 2003.

2. Basic nursing procedures. Tobler R. M. "Medicine", 2004.

3. Ways of drug administration: Proc. allowance / E.Yu. Shkatova, N.V. Khataguri. – 3rd edition, corrected and added. - Rostov n / D: Phoenix, 2007. - 96 p. – (Medicine for you).

4. Test control for general care of therapeutic patients. Totrov I.N., Khetagurova Z.V., Ambalova S.A., Gabaraeva L.N. et al., Vladikavkaz, 2007

5. electoral librarySOGMA