Federal State Budgetary Educational Institution of 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 Medicine №1

METHODOLOGICAL MATERIALS

On educational practice "Nursing of patients with a therapeutic profile"main professional educational program of higher education

- Specialist programs in the specialty the main professional educational program of higher education – specialty programs in the specialty 31.05.01 Medical care, approved on 30.03.2022.

Methodological materials are intended for teaching students of 2-3 courses (4-6 semesters) of the Medical Faculty of the Federal State Budgetary Educational Institution of the Ministry of Health of the Russian Federation the discipline "Nursing of the patient therapist technical profile"

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INTRODUCTION

B In our country, much attention is paid to the need for a wider implementation of the practical training of specialists in the educational process. Such training naturally consists of theoretical mastery of the subject and the development of practical skills.

Learning the basics of general patient care is of paramount importance for the training of physicians in any specialty. This is due to the fact that caring for patients is a medical measure and it is impossible to distinguish between the two concepts of "treatment" and "care", since they are closely interrelated, complement each other and are aimed at achieving a single goal - the patient's recovery. Patient care is of particular importance in the work of medical and prophylactic institutions in connection with the introduction of a two-stage service into health care practice, in which a doctor and a nurse provide direct care and treatment of patients. In the process of teaching general patient care, the student must theoretically master the meaning of patient care, the nature of the work of medical personnel in medical institutions, the types of devices of the latter, their equipment,

a also medical and sanitary regimes. An acquaintance with the work of the admission department, wards, hospital, functional and auxiliary treatment rooms is carried out. The student must know the rights and duties of a nurse, as well as the regime and principles of patient care in the therapeutic department, the rules for observing the hygiene of the ward and bed, the daily routine, and maintaining medical records. Great importance is attached to knowledge of the general rules and requirements of medical ethics and deontology. The main method of teaching in clinics is the work of students at the patient's bedside as junior medical personnel under the supervision of a teacher and senior nurses of the department, admission department, intensive observation wards. General nursing classes are a necessary element in the training of highly qualified medical personnel.

The methodological manual is intended for teachers of the departments of propaedeutics of internal diseases, teaching the general care of patients for second-year students of the medical, pediatric, medical-preventive faculties. Directions revised according to the curriculum. Methodological developments for each topic of practical lessons are outlined taking into account a single methodological system: determination of the purpose of the lesson from the point of view of what a student should know, what to be able to; determination of the educational goal, taking into account deontological aspects, clarification of the initial level of students' knowledge on each topic, tests or situational tasks of the final control of the level of knowledge; self-study and self-control assignments; As a final control, the control of mastering practical skills is usually used. The proposed guide, of course,

Independent work of students is included in the hours of classes and provides for the development of practical skills in general patient care. The methodological instructions for students and teachers provide for the consolidation of practical skills obtained earlier, in subsequent classes, for example, in caring for patients with respiratory diseases, skills for the patient's personal hygiene are consolidated. The last lesson is carried out in the form of student certification in practical skills in general patient care in accordance with the regulation on student certification.

GOALS AND OBJECTIVES OF THE DISCIPLINE:

- 1. Teach students the basic principles of medical ethics and deontology.
- **2.** To acquaint with the work of junior and paramedical personnel in medical institutions, with the sanitary regime, the maintenance of medical records and the principles of the protective regime.
- **3.** To train students in patient care, sanitization.
- **4.** To teach how to use medical equipment and instruments, to clearly fulfill medical prescriptions.
- **5.** To teach the peculiarities of caring for patients with impaired function of the respiratory system, cardiovascular system, and digestive organs.
- **6.** To acquaint students with the peculiarities of caring for patients with impaired renal and urinary system functions.
- **7.** To teach students how to care for the seriously ill, agonizing, ascertaining death and handling the corpse.
- **8.** To form a medical worker of high professional culture.

The program on general patient care for students of medical universities, carried out at the departments of propaedeutics of internal diseases, aims to teach students qualified patient care, the basic principles of medical ethics and deontology, as well as the ability to use medical equipment and tools.

The student should know:

- principles of organizing the work of medical institutions;
- arrangement and equipment of hospital treatment departments;
- organization of work of junior and middle medical personnel;
- types of sanitization of patients;
- ways of transporting patients;
- principles of medical nutrition on dietary tables;
- types of fevers;
- the mechanism of action of the simplest physiotherapeutic procedures;
- principles of drug use;
- features of monitoring and caring for patients with diseases of various systems of the body;
- peculiarities of observation and care for elderly and senile patients;
- pre-medical emergencies.

The student should be able to:

- work with medical records;
- to carry out sanitization of medical and diagnostic premises of a medical institution;
- anthropometry of patients;
- transport patients;
- feeding seriously ill patients with probes, through a fistula of the stomach, parenterally;
- measure the temperature and register it in the temperature sheet;
- own the simplest methods of physical influence on the patient's body;
- apply various methods of drug administration;
- provide individual care for patients with respiratory diseases, conduct oxygen therapy;
- monitor the parameters of hemodynamics and respiration;
- learn how to collect sputum for various types of research: for general analysis, atypical cells, mycobacterium tuberculosis, for sputum culture for determining microflora and

antibiotic sensitivity;

- to master the technique of caring for patients with dysfunction of the cardiovascular system (determination of pulse, blood pressure). Get acquainted with the organization of work of medical personnel in the cardiology department and the intensive care unit;
- master the general care of patients with dysfunction of the digestive system (master the technique of washing the stomach, intestines, gastric and duodenal intubation, administration of medicinal, siphon, nutritional enemas);
- be able to provide first aid for bleeding (nasal, pulmonary, gastrointestinal, etc.);
- be able to prepare a patient for X-ray, gastroscopic and colonoscopic examination;
- master the technique of providing first aid for food poisoning;
- learn to care for patients with impaired renal and urinary tract function. Get acquainted with the method of bladder catheterization, measure daily urine output;
- to master the method of collecting urine for research for general analysis, glucosuric profile, for sugar and acetone in daily urine;
- know the peculiarities of the work of medical staff in intensive care units;
- own the peculiarities of caring for seriously ill and moribund patients;
- be able to ascertain biological death and handle a corpse;
- provide first aid in case of emergency;

Basic knowledge required to study the discipline:

- human anatomy;
- bioethics;
- normal physiology;
- general chemistry.

TOPIC 1: ORGANIZATION OF WORK OF MEDICAL INSTITUTIONS: DEVICE, EQUIPMENT AND RECEPTION AND OF THE MEDICAL (THERAPEUTIC) DEPARTMENTS OF THE HOSPITAL, SANITARY TREATMENT OF THE PATIENT (COMPLETE AND PARTIAL)

TREATMENT OF THE PATIENT IN DETECTING PEDICULOSIS.
TRANSPORTATION OF PATIENTS.

Educational purpose: acquaintance with the basics of medical ethics and deontology.

Equipment of the lesson: medical equipment of the admission department, therapeutic departments, a general care workshop, a height meter, medical scales, a measuring tape, tables and diagrams on the topic.

The student should know:

- 1. The value of patient care.
- **2.** The role of medical personnel in treatment, patient care.
- **3.** Duties and tasks of a nurse, nurse.
- **4.** The moral character and legal responsibility of a medical worker.
- **5.** Personal hygiene of medical personnel (hand treatment, appearance, individual wardrobes).
- **6.** Outpatient and hospital types of medical institutions. Their tasks, device, equipment.
- **7.** Admission department. Patient reception and registration. Medical history, filling out the passport part. Anthropometry.
- **8.** Sanitary treatment of the patient upon admission (cutting hair, nails, conducting a hygienic bath)
- **9.** Transportation of the patient to the ward.
- 10... Arrangement and equipment of chambers, utility rooms.
- 11. General and sanitary regime of the therapeutic department.
- 12. Wet cleaning of chambers and other rooms. Current and final disinfection.
- 13. Air purity and ventilation in the wards. Temperature conditions.
- **14.** Internal routine. Organization of visits to patients.

The student should be able to:

- 1. Measure growth, chest volume, weigh patients.
- **2.** Transport the patient.
- **3.** Carry out wet cleaning of the chambers with the preparation of a 0.5 and 1% solution of chlorine lime.
- **4.** Monitor (the sanitary condition of the bedside tables.)

Plan and organizational structure of the lesson.

- 1. Greetings.
- 2. Monitoring student attendance.
- **3.** Introductory remarks by the teacher. Target setting.
- **4.** Home assignment.
- **5.** Control and correction of the initial level of knowledge:
 - **1.** The main types of medical institutions.
 - 2. Organization of their work: device and equipment
 - **3.** The structure and functions of the admission department.
 - **4.** Patient reception and registration.

- **5.** Sanitary treatment of the patient (full and partial) upon admission (cutting hair, nails, conducting a hygienic bath).
- **6.** Treatment of the patient when head lice is detected.
- 7. Anthropometry.
- **8.** Transportation of the patient to the ward. Types of transportation.
- **9.** Organization of the work of the therapeutic department.
- **10.** General and sanitary regime of the therapeutic department of the hospital and its meaning.
- 11. Wet cleaning of chambers and other rooms.
- **12.** Internal routine. Organization of visits to patients.
- 11. Acquaintance with the SOGMA Clinical Hospital.
- **6.** Control and correction of the final level of mastering the educational material (solving situational problems).

Questions to control the initial level of knowledge.

- **1.** What is General Patient Care?
- **2.** The value of general care as a curative factor.
- **3.** What are the main objectives and principles of general patient care?
- **4.** What are the main types of hospitals? Their structure and tasks performed?
- **5.** The device and equipment of the therapeutic department of the hospital.
- **6.** That includes the regimen of the therapeutic department of the hospital.
- **7.** What are the main tasks of the medical and protective regime?
- **8.** What types of an individual patient regimen do you know?

RESPONSIBILITIES AND TASKS OF THE MEDICAL PERSONNEL.

Patient care is an integral part of the healing process. Timely recognition of diseases, proper treatment and good care ensure the patient's recovery. In her work, a nurse is obliged to follow the instructions and instructions of the doctors under whose supervision she works.

B in her daily work, the ward nurse has the following obligations interests:

- 1) upon admission of a patient to the department, he checks the quality of the patient's sanitization, proves to the admitted patient his ward and bed, and, if necessary, participates in transferring him from a stretcher to a bed or accompanies him to bed;
- 2) acquaints the admitted patients with the internal regulations and the mode of the department, monitors their observance;
- 3) monitors the sanitary condition in the wards, the regularity of their airing (at 7-8 hours,
- 14-15 h, 21-22 h) and air temperature (not lower than 18-20 ° C);
- 4) monitors the patients' compliance with the rules of personal hygiene and the regularity of changing bed linen and underwear;
- 5) measures the body temperature of patients and enters the measurement data into the temperature sheet; calculates the heart rate and respiration, the daily amount of urine and sputum; conducts anthropometry of the patient;
- 6) participates in bypassing the doctor, informs him about the condition of patients and their performance of the regime;
- 7) records the doctor's instructions on the prescription sheets and strictly follows them (distributes medications, performs injections, puts cans, mustard plasters, enemas, leeches, etc.);
- 8) collects biological material for sending to the laboratory (urine, sputum, feces, etc.) etc.);
- 9) prepares patients for various studies and transports them to diagnostic rooms

bandages;

- 10) monitors compliance with the medical nutrition of patients, monitors food;
- 11) monitors the serviceable maintenance of medical equipment and furniture;
- 12) maintains post medical documentation: makes up a portioned requirement, makes a selection of medical appointments from the medical history, draws up a request for medications, compiles a summary of the patient's condition, fills out a sheet of hospital beds, a register of medicinal products of list A and B, a register of prescriptions and transfers shifts;
- 13) in emergency cases, provides first aid emergency assistance;
- 14) conducts sanitary and educational work among patients.

The ward nurse is assisted in caring for the sick by a nurse, her duties are as follows:

- 1) changing bed linen for an admitted patient and providing him with an individual glass and spoon;
- 2) provision of patients who are on bed rest, with a vessel or a backing circle;
- 3) regular change of underwear and bed linen (at least 1 time per week) in patients with a general regimen and daily changing of the bed in seriously ill patients, and in case of contamination of such patients with feces, replacing it with a clean one;
- 4) washing, wiping or bathing seriously ill patients under the supervision of a sentry nurse; care of skin, hair, nails for patients in serious condition;
- 5) daily cleaning of the sanitary unit, bathroom, corridor and staircases of the department;
- 6) delivery of the investigated biological material (feces, urine, sputum, etc.) to the laboratory.

OUTBOOK AND HOSPITAL TYPES OF HEALTH FACILITIES

There is a wide network of various types, profiles, categories and capacities of health care institutions, which, according to their functions, are divided mainly into 2 groups: outpatient and inpatient.

Remember! There are two groups of medical institutions: outpatient (polyclinic, ambulatory, medical unit, dispensaries, ambulance station, women's consultation) and inpatient (hospitals, clinics, sanatoriums, hospitals).

Polyclinic - an outpatient medical and prophylactic institution, which includes doctors' offices for the main clinical profiles: therapy, surgery, gynecology, neurology, eye diseases, and in some polyclinics and for narrow profiles: endocrinology, orthopedics, urology, etc. main diagnostic rooms: X-ray, functional diagnostics, etc. There are also numerous rooms and departments for performing medical procedures and doctor's prescriptions: physiotherapy department, physiotherapy room, procedural rooms for injections, blood-sucking cups, etc. The polyclinic also has a registry, office rooms and a number of utility rooms.

Outpatient clinic - a non-hospital medical institution with 1-3 (no more than 5) doctors, which serves to provide assistance to the population of a small urban-type settlement, a small industrial enterprise or a rural area. In addition to a doctor, the outpatient clinic includes a paramedic, a midwife, nurses and nurses.

Medical and sanitary unit - a medical and prophylactic institution organized at industrial enterprises for the medical care of workers. The medical and sanitary unit is a complex medical and preventive institution, which, in addition to a polyclinic, may include a hospital, as well as a health center and a dispensary.

Dispensaries—special specialized outpatient institutions that carry out all work according to the dispensary method (servicing patients

c certain types of diseases - tuberculosis, skin and venereal diseases, etc.). Along with treatment and prophylaxis in the dispensary, patronage of patients is carried out. According to the specifics of their work, dispensaries are divided into anti-tuberculosis, oncological, dermatovenerological, neuropsychiatric, etc.

Ambulance stations provide the population with medical care in cases of urgent need. Specialized medical care is provided by a team headed by a doctor, and a paramedic helps him in providing medical care and transporting patients.

Women's consultation - a medical and prophylactic institution in which the treatment and prevention of gynecological diseases, as well as monitoring of pregnant women, is carried out. *Hospital* is a hospital for the treatment of military personnel or war invalids.

Clinic - a medical and prophylactic institution in which, in addition to inpatient treatment of patients, teaching and research work is carried out.

Sanatorium - an inpatient facility where patients are treated aftercare. Usually sanatoriums are located in an area with a favorable climate, where there are medicinal mineral waters or mud. *Hospital* - a medical institution for patients in need of constant treatment and ear-de.

By their nature and capacity, hospitals are divided into a number of

groups. By profile: 1. single-profile (psychiatric, infectious, etc.);

2. multidisciplinary: the hospital has departments - therapeutic, surgical, gynecological and others.

By tasks: one. district; 4. regional;

2. urban; 5. republican;

3. edge;

By bed capacity. Hospitals are categorized according to the number of beds. The main structural units of the hospital are: admission department; hospital with specialized departments or wards; auxiliary departments (X-ray, pathological, laboratories, etc.); pharmacy; kitchen; administrative and other premises.

STRUCTURE AND FUNCTIONS OF THE RECEPTION OFFICE. PAPERWORK. SANITATION AND TRANSPORTATION OF PATIENTS. ANTHROPOMETRY

The patient enters the hospital through the admission department, where the reception, registration, examination, hygienic treatment and transportation of patients are carried out. Sick

can be admitted in a planned manner (in the direction of clinics) or delivered by ambulances.

The emergency room consists of a number of premises, taking into account the admission and discharge of patients:

- 1) the lobby is a waiting room for patients and their relatives. This is where the cloakroom, registration and information desk of the hospital are located;
- 2) examination rooms boxed or simply isolated from each other;
- 3) a sanitary pass, consisting of a dressing room, a shower-bath, a dressing room;
- 4) an insulator for the accommodation of patients with an unknown diagnosis;
- 5) lockers for storing clothes;
- 6) treatment rooms, an operating and dressing room for carrying out medical manipulations;
- **7**) X-ray room and laboratory;
- **8**) office of the doctor on duty;
- 9) lavatory with washbasin.

to notify the relatives.

following rooms: diagnostic wards, anti-shock ward, ward for pain with myocardial infarction, trauma center. In the emergency room, the nurse carries out the registration of patients; fills in the title page of the medical history (form 003y) for each applicant, enters information about the patient in the patient registration register (form 001y) and the alphabetical journal (for the information service), where he indicates the last name, first name, patronymic, wear of hirth data of admission to the department. The actions of a doctor and a purse

B large hospitals in the emergency room, in addition to the above-listed, may be the

alphabetical journal (for the information service), where he indicates the last name, first name, patronymic, year of birth, date of admission to the department. The actions of a doctor and a nurse in relation to patients are strictly differentiated depending on the nature of the disease and the patient's condition. If the patient is admitted unconscious, information about him is received from relatives or accompanying persons. In the absence of documents and the impossibility of obtaining information about the patient who is in an unconscious state, his admission is recorded in a journal with a description of the main external signs, and the information about him is immediately reported to the police. If the patient is in serious condition and needs urgent help, the latter should be provided in full in the emergency room; if necessary, the patient should be transferred to the intensive care unit as soon as possible. The emergency room should have everything you need for emergency and emergency medical care. In cases where a child under 16 arrives unaccompanied or a patient is delivered by an ambulance due to an injury or loss of consciousness outside the home, the nurse of the emergency room is obliged to notify the relatives. if necessary, the patient should be transferred to the intensive care unit as soon as possible. The emergency room should have everything you need for emergency and emergency medical care. In cases where a child under 16 arrives unaccompanied or a patient is delivered by an ambulance due to an injury or loss of consciousness outside the home, the nurse of the emergency room is obliged to notify the relatives. if necessary, the patient should be transferred to the intensive care unit as soon as possible. The emergency room should have everything you need for emergency and emergency medical care. In cases where a child under 16 arrives unaccompanied or a patient is delivered by an ambulance due to an injury or loss of consciousness outside the home, the nurse of the emergency room is obliged

After registration, the patient is sent to an examination room, where he is examined by a doctor, and B if necessary, make instrumental and laboratory research methods (fluoroscopy, electrocardiography, taking blood tests, urine, etc.). If it is not possible to establish a diagnosis, the patient is isolated and consultations with specialist doctors are organized. If, after examination and observation of the patient by the doctor, the data for hospitalization is not established, the patient is allowed to go home, about which an entry is made in the hospitalization refusal log. In some cases (if an infectious disease is suspected), as directed by a doctor, a nurse takes a swab from the throat or nose.

To take a swab from the throat, the nurse prepares a test tube with a sterile swab and a spatula, then asks the patient to open his mouth and presses the tongue root with a spatula, and runs the swab along the arches and tonsils without touching the oral mucosa. Carefully, without touching the outer surface of the tube, he lowers the swab into it. When taking a swab from the nose, the nurse throws the patient's head back slightly, then lifts the tip of the patient's nose with her left hand, and with her right hand, inserts a sterile swab with a gentle rotational movement into the lower nasal passage on

one side, then on the other, and then also places the swab into the test tube. The latter is sent with correction to the laboratory.

After examination and diagnosis, the patient undergoes sanitization.

Sanitary treatment of the patient.

The student must know that the sanitary and hygienic treatment of patients in the admission department is

nii is carried out taking into account the severity of the disease and depending on which system in the given

nominal reception department - one or two-line. In hospitals with a small amount of there are one bed

an accurate sanitization system, where women are washed in turn, and then men, in other hospitals - a two-line system, in which parallel and simultaneous sanitization is provided for both men and women, which shortens their stay

в admission department.

B The sanitary checkpoint has an examination room, where the patient is undressed and prepared for taking a hygienic bath. It has a couch, cabinets for clean linen and containers for dirty linen, a table with the necessary items for shaving, hair cutting, soap, two pans with the words "clean" and "dirty" washcloths. After each patient, the washcloths are placed in a saucepan and boiled. For washing the bathtub - special washcloths and brushes, which wash the bathtub after each patient. The air temperature must be at least 25 ° C. In the examination room, the patient is undressed and an inventory of property is drawn up in two copies: one is placed in the Case History, the other is attached to things. When detected

shooting nits or lice in the scalp, the head is well lathered with soap K,

rubbing it into the skin and put on a scarf for 15-20 minutes. Then the patient is seated in a bath, the head is washed well with warm water and rinsed with a 6% vinegar solution. To destroy nits, table vinegar heated to 27-30 ° C is used, soaked in a cotton swab, moistened with hair and tied with a scarf for 15-20 minutes. In the presence of lice in the linen, it is placed in an oilcloth bag moistened with one of the available disinsectional means (4). Emulsion DDT, hexochloran, 0.5% solution of karbofos, 1% solution of acetophos or metaphos and sent to the disinsection chamber. You can also destroy lice in linen by ironing them with a hot iron on both sides through a damp cloth. It must be remembered that the average duration of a hygienic bath is 20-30 minutes at a temperature of 35-36 ° C. During washing, it is necessary to monitor the patient's condition, if you feel unwell, call a doctor. If a hygienic bath is prohibited for the patient for health reasons, a shower is prescribed. For this, a bench is placed under the shower, on which the patient sits down. Patients in a state of moderate severity wipe the body with a damp towel moistened with one of the disinfectant solutions (camphor alcohol, cologne, vodka), drawing attention to the skin folds in the groin, armpits and under the milk glands in women. The time that the patient spends in the admission department should be reduced to a minimum, after sanitizing the patient, they are sent to the hospital department corresponding to his disease. The path to the ward should be straight and short. In an extremely serious condition, the patient is sent without sanitization to the intensive care unit for urgent medical care. If a hygienic bath is prohibited for the patient for health reasons, a shower is prescribed. For this, a bench is placed under the shower, on which the patient sits down. Patients in a state of moderate severity wipe the body with a damp towel moistened with one of the disinfectant solutions (camphor alcohol, cologne, vodka), drawing attention to the skin folds in the groin, armpits and under the milk glands in women. The time that the patient spends in the admission department should be reduced to a minimum, after sanitizing the patient, they are sent to the hospital department corresponding to his disease. The path to the ward should be straight and short. In an extremely serious condition, the patient is sent without sanitization to the intensive care unit for urgent medical care. If a hygienic bath is prohibited for the patient for health reasons, a shower is prescribed. For this, a bench is placed under the shower, on which the patient sits down. Patients in a state of moderate severity wipe the body with a damp towel moistened with one of the disinfectant solutions (camphor alcohol, cologne, vodka), drawing attention to the skin folds in the groin, armpits and under the milk glands in women. The time that the patient spends in the admission department should be reduced to a minimum, after sanitizing the patient, they are sent to the hospital department corresponding to his disease. The path to the ward should be straight and short. In an extremely serious condition, the patient is sent without sanitization to the intensive care unit for urgent medical care. For this, a bench is placed under the shower, on which the patient sits down. Patients in a state of moderate severity wipe the body with a damp towel moistened with one of the disinfectant solutions (camphor

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Transportation of patients.

Transportation of the patient in the department can be carried out in several ways. The type of transportation is determined by the doctor. Patients in satisfactory condition are sent to the ward, accompanied by a medical worker. In some cases, it is advisable to take the patient to the department in a wheelchair. The seriously ill are transported to the department on a stretcher installed on a special gurney. Each gurney should be fueled with a clean sheet and blanket, depending on the season. Linen is changed after each patient. In the absence of an elevator, seriously ill patients are lifted on a stretcher by two or four people, the patient is carried head first and the lower leg end of the stretcher is raised. The seriously ill, who cannot even move, are transferred from the stretcher to the bed with great care, observing certain rules: the stretcher is placed with the foot end to the head

Monitoring patient visits and transmissions.

Material equipment: instructions indicating the products allowed and prohibited for transmission to patients, portions.

Food products for patients should be accepted from visitors under the supervision of the medical nurse of the department, who has a list of patients with an indication of the number of the dietary table received by each of them. In resting places for patients, in the reception department and in places for receiving transmissions, instructions are posted indicating the products that are allowed and prohibited for transmission to patients. Each compartment should organize proper storage conditions for food, especially perishable food. The nurse must systematically check the bedside tables and refrigerators in which the patients' food is stored. It is strictly forbidden to store perishable food in the wards.

Monitoring the sanitary condition of bedside tables.

Students should know that every day the nurse makes up a portion for the sick, which he gives to the older sister of the department, and she, in turn, sums up the number of diets and sends the portion to the kitchen. On the basis of these portions, food is prepared in the kitchen. Food buckets and pans should be kept clean and lidded at all times. The dishes are placed on special movable tables with heating and are brought warm to the ward. Considering that most patients have no appetite, it is necessary to give the dishes a beautiful appetizing appearance. The dining room should be calm. For hospitals, at least four meals a day have been established, and for some groups of 5-6 patients - one meal a day.

Bedside tables must be kept clean. They should be treated daily with a weak solution of bleach. It is not allowed to store perishable food and clothes of patients in bedside tables.

Wet cleaning of wards, offices, operating rooms, corridors and common areas.

Material equipment: rags; container, 0.5% bleach solution, 1% chloramine solution.

Students should be aware that wet cleaning and washing the floors of wards and corridors is carried out with a soap and soda solution. For washing floors and wet cleaning, separate rags and marked containers should be allocated. The use of equipment and cleaning rags for other purposes is strictly prohibited. Cleaning equipment should be stored in the designated place. Sanitary facilities must be washed with a 0.5% solution of clarified bleach (0.5 liter can of 10% bleach solution for 1 bucket of water). It is not allowed to take cleaning equipment out of the bathroom. The rags, after washing the bathroom, must be rinsed in tap water, and then in a 0.5% solution of clarified lime, soaking for 30 minutes. To wash toilets and vessels, you need to have kwachs and store them in a 0.5% solution of clarified bleach. Particular attention should be paid to the handling and storage of vessels. Toilet bowls are washed with a solution of clarified bleach.

B bathroom, after each use, the bath is washed with a soap and soda solution, and then with a clarified solution of bleach, and finally rinsed with hot water. A washcloth, for washing a bath, should be contained in a solution of clarified bleach and after use, boil for at least 15 minutes from the moment it boils. Oilcloths

 μ couches for examinations are wiped twice with a rag moistened with 1% chloramine solution μ 0.5% bleach solution. Door handles, tables and other items are separately, daily wiped with the above disinfectant solutions.

Medical and protective regime

Therapeutic and protective regime provides the patient with physical and mental

peace. The main component of the medical and protective regime is strict adherence to the daily routine and complete mutual understanding between the patient and the medical staff. A properly constructed regimen assumes good rest, regular nutrition, medical supervision, timely implementation of diagnostic and therapeutic procedures.

Each patient, depending on his condition, is prescribed one or another individual regime.

Remember! There are four types of individual patient regimen: strict bed, bed, semi-bed and general.

With strict bed rest, the patient is not allowed to actively move in bed, he performs all physiological functions in bed, and the nurse provides care, feeds the patient and makes sure that he does not get up.

In bed rest, the patient is allowed to freely turn the bed, but not leave it.

In the semi-bed mode, the patient is allowed to walk to the toilet.

With a general regimen, the patient is allowed to walk around the ward.

Patients are required to comply with the separation regimen, be in the ward during the rounds of the doctor, that is, after breakfast and before lunch, strictly follow the recommendations given by the doctor. During quiet hours, patients should be in bed, after lights out, observe silence in the ward and department. Patients should be warned against bringing in unauthorized foods, especially alcoholic beverages.

For violation of the regimen, patients are discharged from the hospital.

B In the summertime, walking patients, with the permission of a doctor, can go out into the courtyard of the hospital. You cannot leave the hospital without the permission of your doctor.

Tests-tasks for the final control.

- 1. List the responsibilities of the nursing staff.
 - Answer: 1. Quickly and clearly follow the orders of the nurse, doctor.
 - **2.** Clean the premises in a timely manner.
 - **3.** Monitor compliance with the internal regulations to lay down. institutions.
 - **4.** Observe the rules of personal hygiene of patients.
 - **5.** Observe the principles of deontology (carefully, tactfully treat patients, each other, medical personnel, keep professional secrets).
 - **6.** Deliver the investigated biological material (feces, urine, sputum, etc.) to the laboratory.
- 2. What are the main types of hospitals.
 - Answer: 1. Clinic. 2. Outpatient clinic. 3. Medical and sanitary unit.
 - 4. Dispensary. 5. Women's consultation. 6. Health center. 7. Ambulance station. 8. Hospital. 9. Hospital. 10. Clinic. 11. Sanatorium.
- **3.** What is the sanitary treatment of the patient upon admission.

Answer: 1.Examination of the patient's body and, first of all, the scalp to detect head lice

- 2. Hair and nail cutting.
- 3. Shaving.
- 4. Shower or hygienic bath.
- **4.** Types of transportation of patients from the admission department to the
 - wards.1,2,3,4. Answer: 1. In satisfactory condition on foot.
 - 2. Lying on a stretcher.
 - 3. On a wheelchair, sitting.
 - 4. Lying on a gurney.
- 5. The technique of laying the patient on a stretcher, climbing stairs and descending from it, shifting

moving the patient from the stretcher to the bed.

Answer:1. The stretcher is placed perpendicular to the couch, their head end came up to the foot end of the couch. Shift 3 or 2 (rarely) orderlies. The patient is lifted up at the same time with coordinated movements, together with him they are turned 90° towards the stretcher and the patient is placed on the stretcher. In the absence of a lift, seriously ill patients are lifted on stretchers by 2 or 4 people who are out of step. Up the stairs, the patient is carried head first and the stretcher is lifted from behind. When descending, the patient is carried with his feet forward, raising the leg end of the stretcher. When transferring from the stretcher to the bed, the stretcher is placed either perpendicular

To

beds, either parallel or close to the bed.

6. What should be understood by the regime of a medical institution?

Answer: This is a certain procedure established in a medical institution of an outpatient and inpatient type in order to create the best conditions for the recovery of patients.

7. What constitutes the regime of a medical institution?

Answer: 1. From temperature conditions, lighting and ventilation.

- 2. Sanitary regime.
- 3. Personal hygiene of patients and medical personnel.
- 4. Of the internal regulations.
- 8. What should be the optimal room temperature?

Answer: 20 ° C.

9. What should be the cleaning of premises?

Answer: Regular, moist

10. What should be done with wet cleaning of premises?

Answer: 1. With warm water and soap.

- 2. Disinfectants.
- 11. What disinfectants should be used for wet cleaning? Answer: 1.

Clarified bleach solution 10%, 1%, 0.5%.

- 2. 1% chloramine solution.
- 3. 3% lysol solution.
- 4. A solution of ammonia (rarely).

TOPIC 2. ORGANIZATION OF THE WORK OF THE MEDICAL NURSE POST.

Educational purpose: acquaintance with the basics of medical ethics and deontology.

Equipment of the lesson: medical inventory of the therapeutic department, medical documentation, medical history, stands, tables on the topic.

The student should know:

- 1. The value of patient care.
- **2.** The role of medical personnel in the treatment and care of patients.
- 3. Duties and tasks of a nurse, nurse.
- **4.** The moral character and legal responsibility of a medical worker.
- **5.** Personal hygiene of medical personnel (hand treatment, appearance, individual wardrobes).
- **6.** What is medical ethics and deontology?
- **7.** Basic requirements for personal hygiene of a nurse.
- **8.** About the device and equipment of the nursing post in the department.
- **9.** Are there sanitary and hygienic requirements for the post of a nurse?

10. The main types of medical records in the therapeutic department.

The student should be able to:

- work with medical records:
- to carry out sanitization of medical and diagnostic premises of a medical institution;
- anthropometry of patients;
- transport patients;

Plan and organizational structure of the lesson.

- 1. Greetings.
- **2.** Monitoring student attendance.
- **3.** Introductory remarks by the teacher. Target setting.
- **4.** Home assignment.
- **5.** Control and correction of the initial level of knowledge:
 - **1.** The value of patient care.
 - 2. Deontological aspects of nursing.
 - **3.** The role of medical personnel in the treatment and care of patients.
 - **4.** Responsibilities and tasks of healthcare professionals.
 - **5.** Moral and legal responsibility of medical personnel. Code of conduct.
 - **6.** Personal hygiene of doctors (hand treatment, appearance).
 - 7. Organization of the work of the post of a nurse.
 - **8.** Equipment and organization of the treatment room.
- **6.** Control and correction of the final level of mastering the educational material (solving situational problems).

PATIENT CARE AS A TREATMENT FACTOR. ROLE OF MEDICAL PERSONNEL IN TREATMENT AND CARE OF PATIENTS

Patient care is an integral part of the healing process. It includes the fulfillment of medical appointments, the hygienic maintenance of the patient and the premises where he is (ward, room), keeping the bed clean, providing assistance during meals, physiological functions, preparing for medical and diagnostic procedures, organizing the patient's leisure time.

Most of the diseases are accompanied by a limitation of physical activity and therefore patients often need outside care. The nursing staff shares a place with the doctor at the patient's bedside, and if the doctor treats, the nurse takes care of it. There are known cases when nurses nursed seemingly hopeless patients due to strict compliance with the doctor's prescriptions (injections, distribution of medicines, setting enemas, etc.), strict adherence to dietary, drinking and hygienic regimens, the creation of favorable physical and psychological conditions. The well-known gynecologist V.F.Snegirev in the conference hall of the clinic next to the portraits of outstanding scientists N.I. At the same time, poor care, a nurse's negligent attitude to her direct duties can not only delay the patient's recovery, but also lead to serious complications. The famous surgeon N.I. Pirogov argued that nya-nyu should be chosen from among women who carry in their souls the fire of disinterested love for their work and those people for whom it is being done.

It should be emphasized that in the second year students come to the clinic for the first time and come into direct contact with patients. And already immediately, from the first step to the doctor

In his field, students need to master a very complex and important science of relationships with patients, the purpose of which is the patient's recovery. This is not only a science, but also a medical talent, a medical instinct.

The student must know the science of the relationship between a doctor and a patient, about the duty and responsibilities of a doctor, about the purpose of medical deontology (from the Greek. Deos - due, logos - study).

"The profession of a doctor is a feat. It requires selflessness, purity of soul and purity of thoughts. Not everyone is capable of this ", -wrote A.P. Chekhov. The success of treatment is largely determined by the authority of the doctor, who is based not only on personal selfless work, but also on deep knowledge; A respected physician is primarily a knowledgeable physician. Hippocrates emphasized that only serious training is the basis for the successful activity of a doctor and "here it is also necessary to add a long-term adherence, so that the teaching, rooted firmly and deeply, will bear ripe fruits."

The authority of the doctor in the eyes of the patient is largely based on his attitude towards the patient, sensitivity, and participation in suffering. When starting work in the clinic, students should remember that the first impression on a patient is made by the appearance of a doctor. In a conversation with patients or colleagues at the patient's bedside, the doctor should avoid using words and medical terms that are not clear to the patient, which may be misinterpreted in a negative way.

Medical deontology includes the need to preserve medical confidentiality, but this requirement does not include, however, cases where the preservation of medical confidentiality may cause harm to people around him (for example, if a person is sick with an infectious disease).

The issues of medical deontology are also closely related to professional ethics. In our country, there are all conditions for the relationship between doctors to be truly friendly, based on mutual support and assistance for the benefit of the patient.

ORGANIZATION OF THE WORK OF THE NURSING POST. TYPES OF MEDICAL DOCUMENTATION

There is a nursing post for every 25-30 beds in the department. A nurse's post should be located close to the wards she serves. The post is equipped with a table for storing case histories, a chair for a nurse, a cabinet for medicines and medical instruments, a safe for storing List A and B medicines, a refrigerator for storing perishable medicines, a mobile table for dispensing medicines, a table to prepare for various manipulations. The nurse's station is equipped with an alarm panel from the wards, a telephone, a table lamp and a sink with a faucet for washing hands. If the department does not have a separate treatment room for injection, then the post should have a table for preparing for injections, bixes with sterile material and a set of instruments for performing injections.

Depending on the schedule of the hospital regimen, the work of the nursing post is built. One of the important points in the work of a nurse is the transfer of duty

state. She has no right to leave her post if a change has not appeared. The nurse who replaced, together with the sister who graduated from work, bypassed the wards, checked the sanitary condition of the department, and paid special attention to seriously ill patients. The nurse handing over the duty reports on changes in the condition of these patients during the expired duty, sets out the volume of prescribed and completed medical appointments, as well as appointments that still need to be performed on the upcoming duty.

The nurse on duty gives the following to the nurse on duty:

- 1) medical instruments (syringes, thermometers) and medicines;
- 2) keys to the safe with medicines of list A and B;

- 3) a register for the registration and consumption of narcotic drugs, where both nurses are registered in the delivery and use of narcotic drugs;
- **4**) a prescription journal, in which the prescribed manipulations, injections, laboratory and instrumental studies are written out from the patient's medical history;
- 5) register of poisonous and potent drugs;
- 6) the register of reception and transfer of duties, which indicates the total number of patients, their movements, the number of seriously ill and febrile patients; urgent appointments; quantity and technical condition of medical instruments and care items. In this magazine, both nurses put their signatures on the admission and delivery of the watch.

In the morning before surrendering the duty, the nurse fills out a sheet of registration of the movement of patients and the hospital bed fund (form 007y), these data are duplicated by the older sister in the journal of admission and discharge of patients, in which the passport data of the patient, diagnosis, number of bed days spent in hospital, medical history number and sick leave.

In the morning, the nurse writes out, on the basis of medical prescriptions, a requirement for food for patients, that is, a portioner (form 1-84), in two copies: for the catering unit and the pantry. The porcionnik contains an indication of the number of patients for each diet and, in addition, the names of the patients and the name of the products issued additionally or on a fasting day. Each department maintains journals with a list of patients who need to carry out laboratory or instrumental research methods, as well as those in need of consultation from various specialists (neurologist, urologist, psychiatrist, etc.).

B a hospital history for each patient is started.

It consists of: a) passport part; b) complaints of the patient, medical history and life; c) objective data; d) diaries; e) epicrisis; at the end of inpatient treatment, the patient is given an extract from the medical history. The data of measurements of body temperature, pulse, respiratory rate, blood pressure and urine output are entered into the medical history, and all these data are graphically depicted in the temperature sheet attached to the medical history. The results of laboratory, radiological, electrocardiographic and other studies should be pasted into the medical history by a nurse in chronological order. The medical history is kept at the post. It is strictly forbidden to give the patient his medical history, report the results of laboratory tests.

Remember! The main types of nursing medical documentation: title page of medical history, medical prescriptions, procedural and temperature lists, portions, journals "Accounting and consumption of narcotic drugs" and "Reception and delivery of service"

WORK ORGANIZATION, EQUIPMENT, MEDICAL DOCUMENTATION OF THE PROCEDURE ROOM.

A treatment room is a special room for carrying out a number of medical procedures for which sterility rules must be observed. In the procedural room, venipuncture for blood sampling, injections, transfusions, some medical manipulations (pleural puncture, paracentesis), as well as determination of the blood group and Rh factor are performed.

The treatment room is available both in hospitals (hospitals, clinics, hospitals) and in outpatient clinics (polyclinic, medical unit). A well-lit and ventilated room, equipped with cold and hot water, is assigned to the treatment room. The walls and floor of the treatment room should be comfortable for mechanical cleaning. Each treatment room, regardless of its size, must have a sink equipped with hot and cold water mixers. The sink is placed closer to

front door. A basin is placed next to the sink for soaking used tools and a glass jar with gloves placed in an antiseptic solution. In the treatment room, daily wet cleaning is performed twice - before starting work and at the end of the working day, and, if necessary, routine cleaning. Once a week, they carry out a general cleaning of the treatment room with washing of walls, floors, equipment.

B the treatment room must have the following equipment: a cabinet or table for storing instruments and medicines; sterilization boxes (bixes) with sterile dressing material (bandages, cotton wool, etc.), syringes, needles and systems for intravenous infusion, with a set of ready-made sterile instruments for paracentesis, pleural puncture; disinfection boiler for instruments and syringes; distiller; tabletop centrifuge; germicidal lamp; tripods for long-term infusion; racks for clean blood collection tubes; set for determining the blood group; refrigerator for storing serum, blood and medicines; taboo or screw chairs; table for medical records; aprons made of plastic to protect the clothing of medical personnel; enameled basins for locking dirty instruments and hand processing; buckets for dirty material with a pedal and a lid; wooden stands-benches; a table for intravenous injections and a couch covered with oilcloth; electric pump.

The working day of a treatment nurse begins with an examination and wet cleaning of the treatment room. The procedural nurse checks whether the staff on duty used the booth at night. She throws the used and contaminated dressings into the buckets for the dirty material, and washes the used medical instruments, syringes, droppers. Then he performs wet cleaning of the room. After that, the procedure nurse puts on a sterile gown, carefully hides the hair under the cap, and processes the hands. Then he looks through the list of patients who need to take blood on that day, make intravenous injections, put in droppers and establish their sequence.

First, it is necessary to take blood from patients for biochemical studies, if necessary, determine the blood group, Rh factor, etc. After that, the procedure nurse makes intravenous infusions prescribed by the doctor and prepares for intravenous drip infusions (fills the system for intravenous infusions with the necessary drugs and installs it on a tripod) and only after that puts the droppers for patients. First of all, seriously ill patients are served whenever possible.

If necessary, the procedural nurse prepares medical instruments for thoracocentesis or paracentesis, assists the doctor in carrying out these medical procedures and monitors the patient's condition. Replenishes the supply of medicines in the treatment room of the older sister.

B at the end of the working day, wet cleaning of the treatment room is performed. At the end of the work, the procedural nurse turns on the bactericidal lamps and leaves, closing the procedural room with a key. The keys to the treatment room must be kept by the ward nurse on duty. This is the operating procedure of the treatment room.

B treatment room the following medical documentation is available:

- 1) control log for registration of blood group and Rh factor;
- 2) blood and plasma transfusion register;
- 3) register of blood substitutes and protein preparations;
- 4) register of blood sampling for biochemical research;
- 5) intravenous infusion log;
- 6) intravenous drip log;
- 7) a register of blood sampling for the Wasserman reaction;
- 8) a register of syringes, needles and systems for intravenous infusion;
- 9) a notebook for the registration of drugs used for anaphylactic shock;

- 10) instructions for the provision of first aid for anaphylactic shock and for the sanitary treatment of the treatment room:
- 11) a table of antidotes used for acute poisoning;
- 12) general cleaning register of the treatment room.

A procedural nurse is chosen from among the most experienced nurses, she must perfectly master the technique of medical manipulations, strictly observe the rules of personal hygiene and maintain the sanitary and hygienic state of the procedural room at the proper level.

Questions for the final control of knowledge.

- 1. What is General Patient Care?
- **2.** The value of general care as a curative factor.
- **3.** What is medical ethics and deontology?
- **4.** What are the main responsibilities of the healthcare staff?
- **5.** List the basic requirements for a nurse's personal hygiene.
- 6. List the basic requirements for working clothes for a nurse
- 7. What are the main responsibilities of nursing staff?
- 8. Tell us about the structure and equipment of the nursing station in the department.
- **9.** What are the sanitary and hygienic requirements for the post of a nurse?
- 10. List the main types of medical records.
- 11. Tell us about the working hours of the nursing post in the department.
- 12. What are the rules for working and maintaining medical records?
- 13. Who and how is the reception and delivery of shifts conducted?
- **14.** List the manipulations performed in the treatment room.
- **15.** What does the operating mode in the treatment room consist of?

sixteen.What are the sanitary and hygienic requirements for the treatment room and personal hygiene of the nurse working in it?

- **17.** List the equipment in the treatment room.
- **18.** What types of documentation for the treatment room do you know?

TEST CONTROL.

- 1. How do care and treatment relate to each other?
 - a) care and treatment are different concepts; the treatment is carried out by a doctor; nursing nursing and junior medical personnel;
 - b) care and treatment are identical concepts, since both treatment and care aim to achieve the patient's recovery;
 - c) nursing is an integral part of the treatment.
- **2.** What does special care mean?
 - a) care, which is carried out especially carefully; b) care, which is carried out in special conditions;
 - c) care that requires the presence of certain specialists; d) care, which provides for additional measures,

due to the specificity of the disease.

- **3.** Who should care for the sick? a) relatives of the patient; b) middle and junior medical personnel;
 - c) all medical workers, as well as the patient's relatives, each of them having their own specific functions for organizing care.

4. A patient came to the emergency department without medical directive documents, and suddenly felt bad.

What will be your tactics?

- a) examine the patient, provide him with the necessary assistance and resolve the issue of further treatment tactics:
- b) call an ambulance:
- c) send the patient for medical referral documents
- **4.** A patient was admitted to the emergency department with complaints of abdominal pain.

The general condition of the patient is satisfactory. Can he take a hygienic bath?

Can i:

- b) it is impossible;
- c) it is possible after the exclusion of an acute surgical disease.
- **5.** A patient was admitted to the emergency department with suspected gastrointestinal bleeding (3 hours ago, there was vomiting with the contents of the "coffee grounds" type). Feels subjectively satisfactory, can move independently.

How to transport a patient to the department?

a) on foot, accompanied by a nurse; b) in a wheelchair; c) only on the coil.

TOPIC 3.

MEDICAL DOCUMENTATION IN THE THERAPEUTIC DEPARTMENT AND RECEPTION REST.

Educational purpose: acquaintance with the basics of medical ethics and deontology.

Equipment of the lesson: medical inventory of the therapeutic department, medical documentation, medical history, stands, tables on the topic.

The student should know:

- **1.** The value of patient care.
- **2.** The role of medical personnel in the treatment and care of patients.
- **3.** The moral character and legal responsibility of a medical worker.
- **5.** Organization of the work of the therapeutic department.
- **6.** The main types of medical records in the therapeutic department.
- 7. Admission department. Patient reception and registration.
- **8.** The main types of medical records in the admission department.
- **9.** The operating hours of the treatment room.
- **10.** Types of documentation for the treatment room.

The student should be able to:

- work with medical records:
- to carry out sanitization of medical and diagnostic premises of a medical institution;
- anthropometry of patients;
- transport patients;

Plan and organizational structure of the lesson.

- 1. Greetings.
- 2. Monitoring student attendance.
- **3.** Introductory remarks by the teacher. Target setting.
- **4.** Home assignment.
- **5.** Control and correction of the initial level of knowledge:
 - 1. Moral and legal responsibility of medical personnel. Code of conduct.
 - **2.** Organization of the work of the therapeutic department.
 - **3.** Types of medical records.
 - **4.** Registration of documentation in the reception department.
 - **5.** Patient reception and registration.
 - **6.** Medical documentation of the treatment room.
- **6.** Control and correction of the final level of assimilation of educational material (solving situational tasks).

ISSUES OF DEONTOLOGY AND MEDICAL ETHICS IN TRAINING A DOCTOR

Human life and health is the highest value on earth, for all other values are nothing if a person does not live on it.

Medicine at all times has been based on a fusion of special knowledge, skills and ethical provisions. The last side, starting approximately from the beginning of the 19th century, was designated by the concept of "doctor's deontology" or "doctor's ethics and deontology." The term "deontology" comes from the Greek words "deon" - ought and "logos" - doctrine and was introduced into common use at the beginning of the 19th century. English philosopher Bentham as the name of the doctrine of professional human behavior.

Medical or medical deontology was a part of this doctrine, and, perhaps, the most developed, most fully developed and actively researched.

B The literature contains various definitions of the goals of medical deontology. Usually, medical deontology was defined as the doctrine of the principles of behavior of medical personnel, aimed at increasing the usefulness of treatment and eliminating the harmful consequences of inadequate medical knowledge, actions, etc.

The main issues of deontology were: the relationship between a doctor and a patient, iatrogenism, or diseases associated with medicine, the ethics of managing severe and hopeless patients, including issues of euthanasia, healing in the age of the scientific and technological revolution, medical secrecy, self-improvement and collegiality of doctors. Professional medical ethics is a specific manifestation of the general ethics of a person in special conditions of medical activity, sensitivity of character, attention, knowledge, education, culture, collegiality.

In the second half of the 20th century, qualitative changes took place in medicine. It was invaded by high technologies, which led to great advances in biology and genetics. Medicine has risen to a higher level. The previously inaccessible to medicine became available. Its power increased. It became possible to "fix" a man as a machine, as a mechanical creation. As a result, there was a threat of losing the morality, mercy, compassion for the patient, accumulated over the centuries. The relationship between the doctor and the patient has become more and more like the relationship of business people. There is a person who offers his services - a doctor - and there is a consumer of these services - a sick person. And if this is the case, the need arose for the legal regulation of their relationship. An independent

area of law - medical law. A number of relationships between a doctor and a patient began to be regulated by laws.

B In connection with all this, deontology is now giving way to a doctrine that reflects the legal and other relationships between a doctor and a patient and is called bioethics or biomedical ethics. Bioethics has not completely replaced the deontology of the doctor. Many sections of deontology have been preserved in it, although others, qualitatively new, have appeared.

To date, there is no complete agreement between scientists about what are the main issues of bioethics. Still, the main of them, apparently, can be considered the following: the doctor and the rights of the patient, (the relationship between the doctor and the patient), the protection by the doctor of the patient's private life (including in the form of preserving medical secrecy), informed consent of the patient for examination and treatment, death and dying (including euthanasia), problems of reproductive technology, caring for children and mental patients, and a number of others.

The relationship between the doctor and the patient is deeply unique.

In many countries of the world, the doctor-patient relationship is preferred to be built on a legal basis.

At the present stage of development of society and medicine, several models of relationships are distinguished:

I. Paternalistic (from the word "father" - father) paternal care of the doctor about the patient; the relationship of father to son (American philosophers), where the patient completely entrusts himself to the doctor.

A sick person is qualitatively different from a healthy person in many respects. The attitude towards life, work, the environment and even relatives, etc. is changing. A serious illness leads to great shifts in the human psyche. Causes deep feelings, excitement and fear for their fate.

Hence, a doctor of any specialty must remember that he is dealing, first of all, with a suffering person who is sick not only physically, but also mentally.

In many cases, the doctor's word is no less curative than medicines. When conducting a round, a conversation in the ward, and in any communication with patients, the doctor always

I must also remember about the second side of the influence of a word on a sick person - the possibility of negative consequences of an inadvertently spoken word. The word is not only a healing factor, but also a sharp weapon that can seriously injure the patient's psyche, worsen the course of his illness.

All the consequences of the negative impact of the doctor on the patient are called iatrogenic *nia*.

Unfortunately, in a number of cases iatrogenies arise from the callousness of the doctor, his insufficient general culture, and indifference to the fulfillment of his medical duty.

II. **Modern engineering relationship model**- the disease is viewed as a breakdown of a mechanism, a mechanical engineer fixing a breakdown (a new generation of doctors), where the school of clinical thinking disappears, the doctor does not know how to clinically generalize observations. According to IA Kassirsky, doctors are also "militant instrumentalists." Nowadays, the engineering model has a solid scientific basis. It owes its appearance to the unprecedented achievements of medicine and high technologies in the last years of the XX century (tomography, ultrasound, organ transplantation, etc.). But this model is fraught with the danger of the doctor's actions more in his own, corporate purposes than in the interests of the patient. These are proposals for the mercenary purposes of expensive examinations, drugs, expensive and not very well-shown operations, and many others.

Such collisions require consideration of one more aspect of modern bioethics - the so-called principle of informed consent. Model of relationship between doctor and patient, collegial model. According to this model, it is proposed to build the relationship between the doctor and the patient according to the type of attitude of colleagues to each other, which is why this model is called collegial, the doctor and the patient act as equal individuals.

The collegial model requires the doctor to make all examination and treatment questions

were solved only on the basis of providing the patient with detailed information about these methods, and his consent to carry them out.

Today, our legislation is trying to introduce into the legal framework the relationship between a doctor and a patient, and the law advocates the obligatory nature of all provisions of informed consent.

Article 31. "Fundamentals of the legislation of the Russian Federation on the protection of public health" is called "The Right of Citizens to Information about the State of Health" and reads: "Every citizen has the right, in a form accessible to him, to obtain available information about his state of health, including information about the results of examination, the presence of a disease, its diagnosis

и prognosis, treatment methods, associated risk, possible options for medical intervention, their consequences and the results of the treatment.

Article 32. is called "Consent to Medical Intervention" and it says

sano: "A necessary precondition for medical intervention is the informed voluntary consent of the citizen." Thus, nowadays, relationships such as informed consent are prescribed by law for Russian doctors.

At the same time, it is assumed that informing the patient about his illness pursues the goal of attracting the patient to an active fight against the disease. In addition, informed consent supposedly divides the burden of responsibility for the procedural aspects of examination and treatment between the doctor and the patient.

B In this regard, a number of scientists in the press express an opinion that the patient should give consent in writing. It is believed that it is to a large extent important for the doctor as well - it increases his legal protection, protects against the possibility of the patient's unfair actions in the event of complications.

However, in a moral sense, written consent is not the best. It is precisely the stone on which the trusting relationship between the doctor and the patient is broken. In addition, a simple written consent not certified by a notary is not at all a legal document and cannot protect anyone in court.

One of the principles of the consent model is the requirement to tell the sick person the absolute truth about his illness and the possible immediate tragic outcome. The law requires that the patient be told truthful information about his diagnosis and prognosis, no matter how difficult they are. The Council of Europe Convention (Article 5) and Russian laws (Article 30, paragraph 7, Article 31, paragraph 3 "Fundamentals of the legislation of the Russian Federation) require that the patient be provided with truthful information about the diagnosis and prognosis of the disease, no matter how tragic it is was.

But is it so merciful to demand to tell the patient the whole truth, no matter how bitter it may be? The entire centuries-old medical experience suggests that in many cases it is inadmissible for a doctor to tell a patient the truth about the possible severe outcome of his illness, that the patient is many times dearer of the –darkness of low truths|| than his –comforting deception||.

Of course, one cannot simply dismiss the principle of informed consent. Many modern methods of diagnosis and treatment are highly aggressive and can give a number of undesirable consequences. And their necessity, first of all, must be seriously justified and explained to the patient. The informed consent model is also a legal protection for a doctor in the event of any surprises in the process of examination and treatment, when a patient goes to court, which is often observed today and will be observed more often in the future.

One of the central problems of ethics and deontology of a doctor, and now bioethics, is the so-called euthanasia.

Euthanasia - this is the doctrine of moral - ethical and legal issues of medical work in the most difficult situation - on the verge of life and death.

Until recent years, the answer to this question in the former Soviet Union and post-Soviet Russia was negative. No, the doctor has no right to meet the patient's request and help him die easily. The doctor is not an assistant to death, but a fighter for life. Recorded in the "Klyat-

ve "Hippocrates:" I will not give anyone the lethal means that I ask for, and I will not show the way for such a plan. " However, the question turned out to be not so simple. A number of scientists in our country are in favor of permitting active euthanasia, while passive euthanasia is practiced all the time. When a doctor recommends taking a seriously ill patient out of the hospital, this is real passive euthanasia. In addition, government agencies in a number of countries are passing laws to authorize euthanasia. In Norway in 2001, it was legally allowed to carry out active euthanasia. In many states of America, passive euthanasia is allowed at the request of the patient.

How can a doctor be in this situation? Euthanasia comes into conflict with the moral convictions of many doctors, their upbringing in the system of life values, the "Hip-Pokrat's Oath", finally. In addition, a wide tolerance for euthanasia, its legislative consolidation, can affect the deepest moral and legal institutions of mankind (dishonest relatives, large fortunes, the emergence of a rich stratum in Russian society).

B In our country, any form of euthanasia is legally prohibited and, therefore, doctors must adhere to this law.

B in general, the problem of euthanasia gives rise to a whole tangle of legal and ethical issues that cannot yet be considered resolved

One of the important issues of deontology of a doctor, and now of bioethics, is medical secrecy. This concept has come to us from time immemorial. Recognition of the disease largely depends on the information that the doctor receives from the patient.

Often, among the information entrusted to a doctor, there are such that a person would not have communicated to anyone in other conditions. And the patient believes all this to the doctor, for, as the ancient Indian philosophers taught: "You can not trust your father, mother, friend, but you should not feel fear of the doctor."

And so it should be, because this information can help the doctor in recognizing the disease, and, therefore, they will be useful in its treatment. The doctor is obliged to justify the patient's confidence and keep his secrets a secret. Doctors have done this at all times, as evidenced by the most ancient document - the Hippocratic Oath.

Thus, under the medical secret should be understood the ethical (and legal) prohibition of disclosure of information about the disease, the patient's intimate and family life, which are trusted by the patient himself or his relatives, come from other sources, etc. In fact, the need to respect medical confidentiality is part of the bioethical concept of patient privacy.

B In recent years, the range of information included in the concept of medical secrecy has been replenished with a number of new concepts related to the introduction of high technologies into medicine, the development of new directions of medicine. These are data on donors and recipients during organ transplantation, sperm and egg donors during IVF operations, information on the biological parents of children born with the help of reproductive technologies, and much, much more.

Possession of many of this information makes the doctor, as it were, the closest person to the patient and allows him to invade privacy. And this opportunity carries not only positive, but also possible negative consequences. In this regard, there is a need to regulate the actions of the doctor, both moral, ethical and legal provisions.

B In Russia, the provision on the need to maintain medical confidentiality is recommended by moral and ethical provisions and is enshrined in the law "Fundamentals of Legislation of the Russian Federation ..." Article 30, Section I, says "When seeking medical care and receiving it, the patient has the right to:. ..Storage confidentiality of information about the fact of seeking medical help, about the state of health, diagnosis and other information obtained during examination and treatment. "Article 31; there is also a clause concerning medical secrecy: –Information reflected in a citizen's medical documents constitutes a medical secret and can be provided without the citizen's consent only on the grounds provided for in article

61 of the real Fundamentals ".

Article 61. -Information about the fact of seeking medical help, the state of health of a citizen, the diagnosis of his illness and other information obtained during his examination and treatment constitute a medical secret.

Persons to whom information constituting a medical secret has been transferred in accordance with the procedure established by law shall bear disciplinary, administrative or criminal responsibility for disclosing medical secrets in accordance with the legislation of the Russian Federation, republics within the Russian Federation. "

In addition, Article 14, Section IV of the "Fundamentals ..." refers to the prohibition of disclosing the secrets of the donor and recipient during organ transplant operations.

A After all, we teach our students the need to observe medical confidentiality starting from the 2nd year. Apparently, a well-known principle is at work here - what is said is forgotten, what is seen is remembered for a long time. And probably our young doctors see around them a continuous unmotivated rejection of medical secrecy, absolutely unpunished violation of the law on medical secrecy.

Section 131 - according to which the infliction of moral damage is a judicial act. If the disclosure of a secret has led to serious consequences, the victim has the right to judicial protection, and the perpetrators can be prosecuted.

One of the fiercely controversial bioethical issues is the problem of abortion. In this problem, it is considered as the medical side of the problem (the negative impact of abortion on the woman's body), but the issue of fetal rights is especially discussed. A number of opponents of abortion, as well as most religious denominations, believe that an embryo, a fetus, at any stage of its development, has all legal rights, and termination of pregnancy is considered a murder.

A strong point should be considered the fact that all these people seem to appeal to mercy, stand up for human life, for human rights. All confessional supporters of the prohibition of abortion argue their positions with the inadmissibility of interference with this God-affirmed human law.

Article 36 "Fundamentals of the legislation of the Russian Federation on the protection of public health"; is called "Artificial termination of pregnancy" and it says: "Every woman has the right to independently decide on the issue of motherhood. Artificial termination of pregnancy is carried out at the request of the woman, with a gestational age of up to 12 weeks, for social reasons - at a gestational age of up to 22 weeks.

So-called reproductive technologies are now becoming one of the acute problems of bioethics. Reproductive technologies are the use of the results of high scientific and technical achievements to solve the problems of reproduction of offspring. We are talking about the use of high technologies to obtain offspring in cases where this is naturally impossible - male and female infertility, the desire to have a consanguineous child without marriage, the desire of homosexuals, monks and nuns to have children, etc.

One of the most important sections of reproductive technologies is artificial fertilization of an egg in a woman's body or outside it "in a test tube", called in vitro fertilization (IVF). One of the options for IVF is surrogate motherhood, in which "spouses-customers" who want to have children, but cannot have them themselves, enter into an agreement with a woman who agrees to bear a child for them, conceived from their donor material or completely foreign (egg and semen) material.

All procedures of reproductive technologies entail a number of ethical and legal problems. Russian legislation quite reasonably solves the legal side of the problem. Article 35 of Section VII, -Fundamentals of RF Legislation on the Protection of Citizens' Health states: -Every adult woman of childbearing age has the right to artificial insemination and embryo implantation.

Information about the artificial insemination and implantation of the embryo, as well as the identity of the donor, constitutes a medical secret.

However, reproductive technologies pose many different ethical and legal challenges. Here are some of them: the problem of the health of the donor (man or woman), the problem of nationality or skin color of the unborn child.

One young donor may be the father of 100 (apparently, in the case of a man and many more) children. How to deal with this? What will be the consequences of such parentage or motherhood?

There is a real opportunity to give birth to a child from a father who has long been gone. What will be the position of such a child in the moral and legal aspect?

There is no less real opportunity to give birth to a child from a father who has been sentenced for life and is in prison.

Surrogacy is a very big controversy and problem. For example, there are known cases when a woman who agreed to become a surrogate mother becomes so close to the child during pregnancy that she then refuses to give it to her -customers. They are trying to solve this issue by law, but this does not remove many problems at all.

One of the most controversial reproductive technologies is cloning. In the last years of the outgoing XX century, the whole world was agitated and shocked by the news of the cloning of animals - Dolly the sheep in England, then other animals in various countries. What is cloning?

Y women take an egg, remove the nucleus from it, then implant the nucleus from her own somatic cell. After that, the gamete formed in this way is awakened to division and again transplanted into the woman's uterus. Having carried such a fruit, a woman will give birth to "herself". Gamete can be created from the somatic cells of her children, then she will give birth to their copies, etc.

In connection with all this, there was a fierce debate around the world about the permissibility and inadmissibility of human cloning. By the end of 2000, 27 states had passed tough laws prohibiting human cloning. Nevertheless, there are scientists in the world who do not agree with these laws and continue to conduct research.

Medical experiment also acts now as a necessary section of bioethics. The progress of medical science is directly related to the need to test new methods, methods of treatment, new drugs, vaccines, etc. The introduction of all this into practice is unthinkable without a medical experiment.

One of the newest and most important ethical documents of this plan is the Declaration of Helsinki by the World Medical Association, adopted in the new edition. tion in 2000, which is called

"New Standards for Medical Research".

- 1. most prophylactic, diagnostic and therapeutic procedures carry risks and burdens.
- 2. medical research involving a person should only be undertaken if the importance of the research objective outweighs the associated risks and burdens for the subject. If there is a reasonable likelihood of benefitting from its results.
- **3.** voluntariness and awareness of the participants in the research project.

The same provision is recorded in Article 2 of the Council of Europe Convention on Human Rights in Biomedicine.

These positions are reflected in the Russian "Fundamentals of Legislation on the Protection of Citizens' Health". Article 43: -Methods of diagnostics, treatment and medicinal products that are not approved for use, but which are under consideration in accordance with the established procedure, can be used in the interests of curing a patient only after obtaining his voluntary written consent. A citizen cannot be forced to participate in a medical research.

Academician Yuri Lopukhin notes the multifaceted nature of the ethical problems of medical

experiment, research work and that control over the conduct of a medical experiment should be provided by ethical committees working at medical institutions, in the RAMS, the Ministry of Health of the Russian Federation. I think that committees and commissions should be independent, qualified and authoritative. They should assess all punctures and the degree of risk for the patient, act as a guarantor of research in accordance with the above recommendations of the Declaration of Helsinki.

Here one cannot but touch upon the issues of medical experiments on animals. In recent decades, ethical rules for conducting such experiments have been developed in many countries. These rules require a convincing substantiation of the feasibility of such an experiment, the involvement of a minimum number of animals in the experiment, careful attitude to animals both during the experiment and, especially, when they are killed. Animals can only be slaughtered after anesthesia. Cruel experiments on animals (burning the skin of animals, immersing a part of the body in boiling water, blinding animals, etc.) are considered absolutely unacceptable.

Thus, it can be seen that, at present, when conducting medical experiments, it is necessary to comply with a number of ethical and legal provisions that humanize the impact on humans and animals.

Transplantology, which is rapidly developing in our time, also carries very big ethical problems.

B US experts believe that it is impossible to resolve the issue on the basis of "who waits for how long." First of all, transplantation should be performed on those patients whose life expectancy without transplantation is measured in weeks.

The fact is that transplantations in our country are concentrated in a few centers. Nowadays, the opportunity to get to these centers for a patient living outside the territories of their location is virtually zero. Transplants can only be made on a commercial basis. At the same time, a kidney transplant costs 5 6 thousand dollars and more, for a heart, for example,

a Institute of Transplantology of the Russian Federation - 90 thousand dollars (Doctor, 1999, No. 6). Insurance funds do not pay for such operations, and the regional health ministries do not even have that kind of money. Therefore, the possibility of getting a transplant for a person living outside the regions where the centers are located is negligible.

The financial cost figures cannot fail to raise another serious ethical and legal issue of bioethics. This question can be formulated as follows: "How moral is the waste of such funds on transplantation?" This problem is formulated differently as follows: "The problem of equitable distribution of resources in medicine."

All over the world, many bioethics issues are resolved through the National Bioethics Committees. We need to take the first steps in this direction - to create a commission - an ethical committee, which is obliged to deal with these issues and if it works in full force, all interested persons will be able to get help from it.

We need to deepen our knowledge and knowledge of students in bioethics. Apparently, the curricula should include issues of medical ethics, bioethics, and in accordance with a cross-cutting curriculum.

A number of relationships began to be regulated by the law of the Russian Federation, which should be mandatory for all medical workers. It will be easier to comply with the law if the doctor remembers the medical traditions, ethics, and deontology of the doctor. But we must remember that law and law will not replace morality in healing.

LEGISLATION AND REGULATORY DOCUMENTS

- **1.** International code of medical ethics (morality, ethics), (the importance of preserving human life).
- 2. World Medical Assembly Document (1975) (morality, ethics).
- 3. Ethical Guidelines of the American Medical Association (1964) (ministry to man

- with full respect for human dignity).
- **4.** Document of the World Medical Assembly (1975).
- **5.** Council of Europe Convention (Spain, 1997). On the protection of human rights and dignity in connection with the application of the achievements of biology and medicine, the inviolability of the person and other rights, human priority, equal access to medical care, professional standards, privacy, genome, scientific research, removal of organs and tissue prohibition, violation of the provisions of the convention.
- **6.** World Medical Association Declaration of Helsinki, New Standards for Medical Research (2000).
- 7. Fundamentals of the legislation of the Russian Federation on the protection of public health (1998).

B emergency room the nurse carries out the registration of patients; fills in the title page of the medical history (form 003y) for each applicant, enters information about the patient in the patient registration register (form 001y) and the alphabetical journal (for the information service), where he indicates the last name, first name, patronymic, year of birth, date of admission to the department. The actions of a doctor and a nurse in relation to patients are strictly differentiated depending on the nature of the disease and the patient's condition. If the patient is admitted unconscious, information about him is received from relatives or accompanying persons. In the absence of documents and the impossibility of obtaining information about the patient who is in an unconscious state, his admission is recorded in a journal with a description of the main external signs, and the data about him is immediately reported to the police. If the patient is in serious condition and needs urgent help, the latter should be provided in full in the emergency room; if necessary, the patient should be transferred to the intensive care unit as soon as possible. The emergency room should have everything you need for emergency and emergency medical care. In cases where a child under 16 years of age is admitted unaccompanied or the patient is delivered by an ambulance due to an injury or loss of consciousness that occurred outside the home, the nurse of the emergency room is obliged to notify the relatives. The emergency room should have everything you need for emergency and emergency medical care. In cases where a child under 16 years of age is admitted unaccompanied or the patient is delivered by an ambulance due to an injury or loss of consciousness that occurred outside the home, the nurse of the emergency room is obliged to notify the relatives. The emergency room should have everything you need for emergency and emergency medical care. In cases where a child under 16 years of age is admitted unaccompanied or the patient is delivered by an ambulance due to an injury or loss of consciousness that occurred outside the home, the nurse of the emergency room is obliged to notify the relatives.

After registration, the patient is sent to the examination room, where he is examined by a doctor, and, if necessary, instrumental and laboratory research methods are performed (fluoroscopy, electrocardiography, blood and urine tests, etc.). If it is impossible to establish a diagnosis, the patient is isolated and consultations with specialist doctors are organized. If, after examination and observation of the patient by the doctor, the data for hospitalization is not established, the patient is allowed to go home, about which an entry is made in the hospitalization refusal log.

B treatment room the following medical documentation is available:

- 1) control log for registration of blood group and Rh factor;
- 2) blood and plasma transfusion register;
- 3) register of blood substitutes and protein preparations;
- 4) register of blood sampling for biochemical research;
- 5) intravenous infusion log;
- 6) intravenous drip log;
- 7) a register of blood sampling for the Wasserman reaction;
- 8) a register of syringes, needles and systems for intravenous infusion;
- 9) a notebook for the registration of drugs used for anaphylactic shock;
- 10) instructions for the provision of first aid for anaphylactic shock and for the sanitary treatment of the treatment room;
- 11) a table of antidotes used for acute poisoning;
- 12) general cleaning register of the treatment room.

A procedural nurse is chosen from among the most experienced nurses, she must perfectly master the technique of medical manipulations, strictly observe the rules of personal hygiene and maintain the sanitary and hygienic state of the procedural room at the proper level.

TEST CONTROL

- 1. What does medical deontology study?
 - a) the relationship between the doctor and the patient;
 - b) a wide range of issues of duty, morality and professional ethics of medical workers;
 - c) iatrogenic diseases.
- **2.** The patient is diagnosed with a malignant tumor of the stomach, and at the stage when it can be radically removed by surgery. The patient categorically refuses the operation.

Your tactics:

- a) tell the patient the true diagnosis
- b) discharge the patient, hiding the true diagnosis from him;
- c) tell the patient about the presence of another disease (peptic ulcer, stomach polyp), for which, however, it is necessary to be operated on, try to convince the patient of the need for surgery.
- **3.** What is the responsibility of the head nurse of the department?
 - a) performing the most responsible nursing manipulations;
 - b) control over the work of ward nurses, statement of requirements for medicines;
 - c) control over the provision of the department with hard and soft inventory, bed linen.
- **4.** What manipulations are performed in the treatment room?
 - a) injections; b) puncture of the pleural cavity;
 - c) setting cans, mustard plasters; d)
 - taking medicinal baths; e)
 - determination of blood groups.
- **5.**What medical records are kept by ward nurses? a) shift log; b) a certificate of incapacity for work; c) a notebook of medical appointments; d) portioners;
 - e) card of a person who left the hospital.
- **6.** A patient referred for hospitalization was found to have body lice in the admission department. Your actions?
 - a) refuse to hospitalize the patient;
 - b) to re-wash the patient with soap in the bath, send the patient's clothes and linen to the disinfestation chamber:
 - c) carry out sanitization, including cutting the hair of the head (if possible), lubricating the hair with a mixture of kerosene and sunflower oil, followed by washing the head with a hot 10% solution of table vinegar.
- **7.** The patient developed severe pain in the epigastric region, nausea, vomiting. Medical workers regarded this condition as a manifestation of food poisoning and referred the patient to an infectious diseases hospital, where, with a more thorough examination, a diagnosis of an abdominal (gastralgic) form of myocardial infarction was established. How would you rate the initial actions of health care workers?

- a) absolutely correct;
- b) as a manifestation of a medical error;
- c) careless, negligent.
- **8.** The nurse, having confused the outwardly similar bottles, injected the patient instead of heparin with a large dose of insulin, which quickly lowers the blood sugar level, as a result of which a sharp deterioration in the patient's condition (hypoglycemic coma) occurred. How can you evaluate the actions of a nurse?
 - a) medical offense (negligence, negligence); b) medical error; c) accidental oversight.
- **9.** The young woman's father died of myocardial infarction a few months ago. His death was very difficult for him. From the special literature I soon learned that there may be a hereditary predisposition to myocardial infarction. I began to notice unpleasant sensations in the left side of the chest, there was a fear of dying from heart disease. Seeked medical help. What disease can be expected in the patient?
 - a) iatrogenic disease;
 - b) most likely, an iatrogenic disease with elements of neurosis (cardiophobia), but the patient needs further examination;
 - c) severe heart disease.

TOPIC 4. PERSONAL HYGIENE OF PATIENTS.

Educational purpose: to teach students to treat patients with courtesy, attentiveness in accordance with the principles of medical ethics and deontology.

Equipment of the lesson: a specialized workshop, a functional bed, sets of underwear, bed linen, a vessel, urinals, rubber circles, phantoms of the gluteal regions, pipettes, spatulas, jugs, scissors, bandages, cotton wool, forceps, tables, stands on the topic.

The student should know:

- 1. The device of a functional bed.
- **2.** Preparing the bed. Change of underwear and bed linen in seriously ill patients.
- **3.** Care for the oral cavity, ears, eyes, nose, hair.
- **4.** Skin care and prevention of pressure sores.
- **5.** Washing the sick. Douching.
- **6.** The use of a rubber circle, vessel, urine bag.
- 7. Skin care for bedsores.

The student should be able to:

- **1.** Change underwear and bed linen, prepare a bed for the patient.
- 2. To take care of hair, ears, eyes, oral cavity of seriously ill patients.
- **3.** Conduct sanitization of patients (hair cutting, nails, hygienic bath).
- **4.** Use a functional bed and other devices to create a comfortable position for the patient.
- 5. Carry out skin care, daily toilet (washing, wiping the skin with one of the

disinfectant solutions).

- **6.** To wash away the sick.
- 7. Provide vessels, urine bags, and disinfect them.
- 8. Shift the sick.
- **9.** Prevent pressure ulcers.
- **10.** Carry out oral cavity treatment for seriously ill patients.

Plan and organizational structure of the lesson.

- 1. Greetings.
- **2.** Monitoring student attendance.
- **3.** Introductory remarks by the teacher. Target setting.
- **4.** Home assignment.
- **5.** Control and correction of the initial level of knowledge:
 - 1. The position of the patient in bed.
 - **2.** The device of a functional bed. Various devices for creating a comfortable position for the patient.
 - **3.** Preparing the bed. Change of underwear and bed linen.
 - **4.** Care for the oral cavity, ears, eyes, nose.
 - **5.** Hair care. The method of washing your hair in bed.
 - 6. Skin care, daily toilet. Washing away. Douching.
 - **7.** Prevention of bedsores.
 - **8.** Application of the vessel, urine bag. Disinfect them.
- **6.** Control and correction of the final level of mastering the educational material.

Tests-assignments for initial control of knowledge

- **1.** How often should sick bed linen be changed? Answer:
 - Once a week.
- **2.** How often should bed linen be changed for a seriously ill patient? Answer: As it gets dirty.
- **3.** What are the ways to change sheets in seriously ill patients?
 - Answer: 1. The method of rolling the patient from side to side. At the same time, dirty and clean sheets roll in the longitudinal direction.
 - 2. Sequentially raising the head, chest, torso, legs, roll the dirty sheet in the transverse direction at the same time straighten the clean one.
 - 3. They make the bed, putting the patient on a gurney.
- 4. What are the ways to carry the weak and seriously ill from the stretcher to the bed and vice versa? Answer: 1. One orderly, holding the patient with his right hand under his hips, and grasping with his left

chest at the level of the shoulder blades.

- 2. Two orderlies. Some support the head, neck and upper chest with their right hand, while the other brings their hands under the lower back and hips.
- 3. Three orderlies. One holds the patient's head, neck and upper chest, the second brings his hands under the lower back and upper thighs, the third supports the thighs and lower legs.
- 5. What are the methods of installing a stretcher in relation to the bed when transferring a severe patient.
 - Answer: 1. At right angles.
 - 2. Parallel.
 - 3. Consistently.
- 6. What is the sequence of changing the shirt in a seriously ill patient?

Answer: 1.Slightly lifting the upper body, collect the shirt from back to neck.

- 2. Raising the patient's hands, remove the shirt over his head.
- 3. Hands are freed from the sleeves, and first of all, the healthy one.
- 4. A clean shirt is put on in the reverse order: on the sore arm, then on the healthy one, then over the head and then straighten it on the body.
- 7. List the methods of care for the skin of patients in the hospital.
 - Answer: 1. Hygienic bath. 2. Shower. 3. Rubdown. 4. Washing.
- 8. What is the frequency of rubbing and washing in seriously ill patients? Answer: Every day 1 2 times.
- 9. What is the frequency of taking a hygienic bath or shower for patients in the hospital? Answer: Once a week, if the condition permits.
- 10. Indicate the location of the bedsores.

Answer: 1 the sacrum. 2. The area of the shoulder blades 3. Heels 4. The back of the head

- 5. Elbows 6. Area of the ischial tubercles.
- 11. What are the causes of pressure ulcers? Answer: 1. Poor patient care.
 - 2. General exhaustion.
 - 3. Disease of the cardiovascular system with circulatory failure.
 - 4. Disease of the central nervous system.
 - 5. Diabetes.
- 12. What are the early signs of pressure ulcers?

Answer: Redness of the skin.

- 13. Indicate measures for the prevention of pressure ulcers. Answer: 1. Regular examination of the patient's body.
 - 2. To monitor the cleanliness of the patient's skin: daily wipe the entire body, wash the areas contaminated with urine and feces with water and soap, rubbing with camphor alcohol.
 - 3. To monitor the cleanliness of bed and underwear, there should be no folds on it, for this it is necessary to change the patient's bed 2 or times a day.
 - 4. Using a rubber wheel.
 - 5. Change in the position of the patient's body in bed during the day.
 - 6. In case of reddening of the patient's skin, lubricate it 2 times a day with 5 or 10% solution of potassium permanganate.

PERSONAL HYGIENE OF THE PATIENT AND ITS POSITION IN BED

Compliance with the rules of personal hygiene, keeping the ward and bed clean create conditions for the speedy recovery of patients and prevent the development of many complications. The role of proper patient care is important. Adequate care has been and is the key to the success of the treatment of critically ill patients. The heavier the patient, the more difficult it is to take care of him, the more difficult it is to perform any manipulations to care for the oral cavity, ears, eyes, noses, etc. It is necessary to clearly know the technique of manipulations, to master their implementation. Remember! Proper care of seriously ill patients is the shortest path to their recovery.

Preparing the patient's bed.

Material equipment: bed, mattress, mattress cover, sheet, duvet cover, fleece blanket.

B due to the fact that the patient is in bed most of the time, it is important that it is comfortable and tidy, the net is well stretched with a flat surface. A mattress is placed on top of the net without bumps and depressions. For patient care, a mattress consisting of separate sections is very convenient. The mattress case should be cleaned more often and ventilated to

remove the unpleasant odor, and, if necessary, disinfect. A clean sheet is placed on the mattress cover, the edges of which are tucked under the mattress so that they do not roll or gather in folds.

The patient is given a blanket with a duvet cover, best of all a flannel, as it is well ventilated and disinfected.

The legs of the bed are provided with a stretcher for ease of movement.

Use of a functional bed and other devices to create a comfortable position for the patient.

Material equipment: functional bed, headrests, mattress cover, mattress.

B due to the fact that the patient is in bed for a long time, the organization of a comfortable bed and keeping it clean plays an important role.

The bed should be made of iron to make it easier to clean and disinfect. Currently, they use nickel-plated and oil-painted beds for the convenience of wiping and disinfecting them.

For seriously ill patients in need of an elevated position, head restraints are used.

There are so-called functional beds, consisting of three movable sections, which, by means of handles, smoothly and quietly give the patient a comfortable position in bed.

The net on the bed should be well stretched and have a flat surface. On top of it, put a mattress case without bumps and depressions. A mattress, consisting of separate parts, is very convenient for caring for patients. A bedside table is placed near the bed. It is level with the bed so that the patient can easily use it.

Severely ill patients use mobile bedside tables that can be used with meals.

Monitoring the appearance and condition of the patient.

Material equipment: thermometer, scissors, soap.

Students should be aware that the ward nurse takes care of patients and their sanitary and hygienic condition. She measures the temperature in the morning

и in the evening, counting the pulse and respiration, measuring the daily amount of urine and sputum, recording all these data in the medical history.

The nurse monitors the cleanliness, silence and order in the wards, compliance with the rules of personal hygiene by the patients (care of the skin, oral cavity, hair and nails cutting); to take care of the timely supply of patients with the necessary for care and treatment, oversees the timely reception of hygienic baths, change of underwear and bed linen, takes part in conducting sanitary and educational work among patients. It provides a thorough examination of weak patients, assists them in washing, feeding, giving a drink, washing eyes, mouth, ears as needed, and preventing the formation of bedsores.

Skin care, daily toilet.

Material equipment: disinfectant solution (camphor alcohol, cotton wool, clothing colon)

Skin care plays an important role in caring for patients, especially seriously ill patients, due to the fact that it plays a protective role, participates in heat regulation and metabolism.

A nurse should keep a schedule for a hygienic bath for walking patients with a simultaneous change of bed and underwear. Washing the patient is assigned to the younger nurse, who prepares the bath, fills with water and

The patient is placed in it so that 2/3 of the body is covered with water, the area of the heart is not covered with water. The nurse is present during washing, monitors the general condition of the patient.

Walking patients take a hygienic bath once a week.

Patients who are on bed rest must daily wipe their skin with a disinfecting solution (camphor alcohol or another solution: for 0.5 liters of water - 1-2 tablespoons of vinegar, cologne or alcohol).

The technique of wiping the skin: moisten one end of the towel with a disinfectant solution, lightly squeeze and wipe the neck, behind the ears, back, front surface of the chest and armpits. Particular attention is paid to the folds under the mammary glands, where diaper rash can form in obese and very sweaty women. Then the skin is wiped dry in the same manner. The patient's feet are washed once or twice a week, and the nails are cut shortly as needed.

With poor skin care and a sharp weakening of the body in places with little the abundance of subcutaneous fatty tissue with prolonged bed pressure on the skin appears. There are violations of the integrity of the skin, the so-called bedsores. Places for bedsores are: the area of the sacrum, shoulder blades, greater trochanter, nails. The first signs of a bed it is

pallor of the skin, followed by redness, swelling and peeling of the epidermis, in severe cases, not only the entire thickness of the soft tissues to the bones, but also the periosteum, as well as the surface layers of the bone substance, can undergo necrosis. The addition of infection sometimes leads to sepsis and is the cause of death of patients.

Hair, ears, eyes, oral cavity care.

Material equipment: scissors, comb, Janet's syringe, tray, spatula for using eye ointment, 3% solution of hydrogen peroxide and boric acid, a weak solution of potassium permanganate, 0.1% solution of furacilin.

Hair care.

Students should know that all patients need to wash their hair with soap or shampoo once every 7-10 days. Sick men who are in the hospital for a long time should often cut their hair short, and wash it after 7-10 days in bed. It is more difficult to maintain cleanliness of hair in women with long hair. Such patients daily need to comb their hair with a thick comb, which should be individual for each patient. A thick comb dipped in a vinegar solution is good for combing out dandruff and dirt.

The method of washing your hair in bed.

The basin is placed at the head end of the bed, the patient's head is thrown back at the neck level and an elevation is placed. During lathering, you should warm up the skin under the hair well. Then rinse them well and wipe them dry, and then comb them thoroughly. After shampooing, especially for women with long hair, the nurse puts a towel or kerchief on the head to prevent hypothermia of the patient.

Ear care.

Walking patients wash their ears every day during the morning toilet. For patients who are in bed for a long time, the nurse periodically cleans the ears so that wax does not accumulate, which can cause hearing loss.

If a sulfur plug has formed, it is removed as follows: a few drops of a 3% solution of hydrogen peroxide are instilled into the ear, and then the plug is removed with a cotton turunda. When a large number of sulfur plugs accumulate, the ear is doused with a large syringe (Janet's syringe with a capacity of up to 150 ml) or a rubber balloon. The patient is seated sideways in front of him so that the light source illuminates the ear. In the hands of pain

he is given a tray, which he presses to the neck under the auricle, then the nurse with his left hand pulls the auricle backward and upward, and with the right hand enters the syringe into the external auditory canal, directs a stream of solution along the upper back wall of it under great pressure.

To instill drops in the ear, bend the patient's head to the healthy side. The patient's earlobe is slightly pulled back with the left hand, and the pipette is held with the right hand and the drops entering the ear canal are counted. After that, a small cotton swab is placed in the ear for a few minutes.

Eve care.

Rinsing the eyes is done in cases where there is a discharge that sticks together the eyelashes. Eyes are washed with a sterile gauze swab dipped in a warm solution of 3% boric acid. In case of eye diseases, instillation of drops and rubbing of eye ointments are performed. Drops must be sterile, as the introduction of non-sterile solutions can lead to eye infection. For instillation into the eyes, there is a special pipette, which is boiled before use. The nurse's hands should be thoroughly washed and rubbed with alcohol.

Instillation technique: slightly pull the lower eyelid with the left hand and, inviting the patient to look in the opposite direction, slowly release one drop closer to the nose, then, after waiting a little, let the second drop in and ask the patient to close his eyes.

Later on, the eyedropper is washed with warm water and placed in a special eye dropper. Eye ointments are applied to the eyelids with a special eye lop-point. The eyelids are pulled down, the ointment is applied and rubbed over the mucous membrane with gentle finger movements.

Oral cavity care.

Walking patients brush their teeth daily in the morning and in the evening and perform hygienic rinsing of the oral cavity with slightly salted water (1/4 teaspoon of table salt in a glass of water) or a weak solution of potassium permanganate after meals. Severe patients cannot brush their teeth on their own, therefore, after each meal, the nurse must wipe the patient's mouth. To do this, you need to take a cotton ball with tweezers, moisten it in a 5% boric acid solution or a 2% bicarbonate solution or simply in warm boiled water and wipe the patient's tongue and teeth. After that, the patient's mouth is rinsed well, sometimes seriously ill patients develop inflammatory changes on the oral mucosa - stomatitis. In such cases, a copper-stone effect on the mucous membrane in the form of an application or irrigation is necessary.

The application consists in applying gauze napkins soaked in some kind of disinfectant solution (2% chloramine solution, or 0.1% furacilin solution).

Irrigation is done using an Esmarch mug, Janet's syringe or a rubber bulb. A kidney-shaped tyazik is given to the hands, which is brought to the chin to allow the washing liquid to drain out. The nurse pulls the left and right cheeks alternately with a spatula, inserts the tip and irrigates the oral cavity. Under the pressure of the jet, the particles of food, pus, etc. are mechanically washed away. Esmarch's mug should be 1m above the head. The tip is boiled before the procedure, and then washed with running water and stored in a 2% solution of chloramine and in a solution of furacilin 1: 5000.

Washing the sick.

Material equipment: jug, forceps, Esmarch's mug, sterile cotton balls, vessel, a weak solution of potassium permanganate.

You need to know that patients who are in bed for a long time, do not take hygienic baths every week, and also suffer from urinary and fecal incontinence,

it is necessary to wash it several times a day, as the accumulation of urine and feces in the groin folds can lead to the formation of bedsores.

Washing is performed with a weak manganese solution or other disinfectant solution. The solution should be warm (30-32 $^{\circ}$ C). For washing, you need to have a jug, forceps and sterile cotton balls. Most often women are washed away.

When washing, a vessel is placed under the buttocks. The patient should lie on her back, legs bent at the knee joints and slightly spread at the hips. A jug with a warm disinfectant solution is taken in the left hand and poured onto the external genitals, and a cotton swab clamped in a forceps is directed from the genitals to the anus (from top to bottom) only 1 time, after which the skin is wiped with a dry cotton swab in the same direction

и discard the tampon so as not to carry infections from the anus into the bladder. Washing should be done from Esmarch's mug, equipped with a rubber tube, a clamp and a vaginal tip, directing a stream of water or a weak solution of potassium permanganate to the perineum.

Men are washed away much easier. The situation is the same.

Submission of the vessel, urine bag, disinfection.

Material equipment: bedpan, 2% chloramine solution or 0.5% solution clarified lime cream, urine bag ("duck").

Patients who are in bed for a long time should be brought into bed by a vessel to empty the bladder and intestines. The liners are enameled, rubber, earthenware, they have an elongated or round shape and are equipped with lids. Clean, disinfected bed liners are stored in washrooms B sterile nests. Before serving to the patient, the vessel is rinsed with hot water. The younger nurse raises the patient's sacrum with one hand, and with the other, carefully brings the vessel under the buttocks.

After defecation, the bedpan is carefully removed from under the patient so as not to spill the contents, covered with an oilcloth or newspaper and taken to the toilet room. The patient is washed away and the area of the anus is wiped dry with cotton wool. The contents of the vessel are poured into the toilet. The vessel is washed well with hot water with Hygiene or Novost powder. After that, the vessel is disinfected with a 2% chloramine solution or a 0.5% solution of clarified bleach.

Weak patients with a small subcutaneous fat layer, with a shift to the formation of pressure ulcers, as well as with fecal incontinence, should be given inflatable rubber liners, which, due to their elasticity, exert the least pressure on the sacrum and at the same time protect from contact with secretions, which is prevention of bedsores. The rubber boat should not be placed directly on the sheet, but an oilcloth should be placed under it. It should not be inflated tightly. A pad should be placed between the buttocks, sacrum and the rubber ring.

Y weakened and seriously ill, when the sphincter of the bladder relaxes, urinary incontinence occurs: it flows out in small quantities or drop by drop. The patient cannot regulate the act of urination. If the patient is in bed, a rubber vessel is placed on him), a urine bag (glass or enamel) is given. The urine collection bag for men has a raised tube up, ("duck"), and for women ends with a funnel, slightly lowered downward. For walking patients

to the torso with tapes.

Urine bags should be washed daily with hot water and soap and rinsed with a weak solution of hydrochloric acid or potassium permanganate to eliminate urine odor.

suffering from urinary incontinence, there are light bags, which are a light reservoir that is attached

Prevention of bedsores.

Material equipment: disinfectant solutions, cotton swabs.

Students should know the following guidelines for the prevention of pressure ulcers:

- 1. It is necessary to turn the patient on his side several times a day, if his condition allows.
- 2. Shake the sheet several times a day so that there are no crumbs in bed.
- 3. Bed linen and underwear should not be folds and patches.
- 4. Patients who are in bed for a long time on their backs need to put an inflatable rubber circle, put in a pillowcase, so that the sacrum is under its opening.
- 5. Wipe the skin daily with one of the disinfectant solutions; camphor mixture, camphor alcohol, 40% ethyl alcohol solution, cologne, vinegar solution (1 tablespoon per 300 ml of water), and if not, wipe the skin with a towel soaked in warm water, then wipe it dry, rubbing slightly.
- 6. When skin hyperemia appears, it is good to rub the skin with a dry towel to improve local blood circulation, quartz the skin in places of maceration, you can wash it with cold water and soap and wipe it with alcohol, then dust it.

Treatment: when bubbles appear, they are lubricated with an alcohol solution of brilliant green, then a dry bandage is applied. If necrosis is limited, the dead tissue is removed and the wound is covered with a sterile napkin moistened with 1% potassium permanganate solution.

Nursing for patients with urinary and fecal incontinence.

Equipment of the lesson: rubber bedpan, glass urine bag, permanent urine bags for walking patients (rubber bags of various shapes), catheters (soft rubber and hard metal), disinfectant solutions for washing the bladder).

Urinary incontinence: Patients with urinary incontinence contaminate bed and body linen and it begins to smell of urine, which negatively affects the rest of the patients, dying in the ward. Patients suffering from urinary incontinence should be treated especially carefully, as they very quickly develop bedsores and skin ulcers. Recumbent sick should

always use rubber liners, which must be emptied periodically. The patient should do the toilet several times a day and wipe the perineal area dry, often change his bedding and underwear. You need to limit yourself to drinking fluids. Walking patients suffering from urinary incontinence should use permanent urine bags, which are rubber bags of various shapes. They are attached to the external genitals and attached to the belt. The accumulated urine is periodically poured out, the urine bag is thoroughly washed and reattached. It is especially necessary to carefully monitor the timely urination in patients with a spinal injury, since paralysis of the pelvic organs manifests itself in a violation of independent urination.

Patients with involuntary defecation are placed in a separate ward. The food of such patients should be high in calories and easily digestible. Having met the needs of the body, such food provides a minimum of residues for the formation of feces. Every morning, they free their intestines with an enema.

Such patients periodically lie on a rubber boat or on a specially equipped bed. Such patients require frequent washing, wiping, changing underwear.

Change of underwear and bed linen.

Material equipment: a set of clean underwear and bed linen. It is necessary to show students on a doll (dummy) how to change clothes,

then, students begin work, knowing that the change of underwear and bed linen is

is done regularly, at least once a week, after a hygienic bath. In some cases, linen is changed additionally as needed. In no case should you dry clothes on central heating radiators and give them to a patient again. Dirty linen is collected in oilcloth bags and immediately taken out of the ward. Before being sent to the laundry, the laundry should be in a specially designated room in bins or chests. Bed linen, especially for seriously ill patients, should be changed by a nurse with the help of a junior nurse.

B Depending on the patient's condition, there are various ways to change bed linen. If the patient is allowed to walk, he can change the bedding himself.

c with the help of a junior nurse. When the patient is allowed to sit, he is moved from the bed to a chair, the younger nurse makes his bed. More complicated is the method of changing bed linen for a lying patient. To do this, the dirty sheet is rolled up with a roller from the side of the head and legs and carefully removed. A clean simple-nude, rolled up like a bandage with rollers on both sides, is carefully brought under the patient's sacrum and, then, straighten in the direction of the head and legs. There should be no scars, patches, folds on the sheet.

Another method: the patient is moved to the edge of the bed, a dirty sheet is rolled up along the length in the form of a bandage, a clean sheet is spread in its place, onto which the patient is shifted, and on the other side the dirty sheet is removed and a clean one is straightened.

Changing bed linen for seriously ill patients should be done with great care and skill.

When changing underwear for seriously ill patients, the nurse should bring her hands under the patient's sacrum, grab the edges of the shirt and carefully bring it to the head, then raise both hands of the patient and transfer the rolled shirt at the neck over the patient's head. After that, the patient's hands are released. Dress the patient in the opposite direction: first, put on the sleeves of the shirt, then throw it over the head and, finally, straighten it under the patient. For seriously ill patients, for example, for patients with myocardial infarction, there are special shirts (undershirts) that are easy to put on and take off. If the patient's hand is injured, first remove the shirt from the healthy hand, and then from the patient. Put a shirt on the sore arm, and then on the healthy one.

Control questions

- 1. List the basic requirements for the patient's personal hygiene.
- 2. What are the features of caring for seriously ill patients?
- **3.** How is the patient's morning toilet carried out?
- **4.** What is daily skin care?
 - List the steps you need to take to prevent pressure ulcers.
- **5.** How can bed and underwear be changed for a seriously ill patient?
- **6.** What is patient's hair care? How to properly wash the patient's head in bed?
- 7. What is the daily toilet of the mouth, ears, nose and eyes in critically ill patients?
- **8.** What measures should be taken when pressure sores appear in critically ill patients?

Final control is carried out by the students performing on each other or phantoms of the learned skills under the supervision and correction of the teacher.

TEST CONTROL

1. What contributes to the spread of nosocomial infections? a) violation of the rules of asepsis and antiseptics in the hospital; b) the appearance of bedbugs and cockroaches in the department; c) the appearance in the department of patients with head lice.

- **2.** What disinfectant solutions are used for wet cleaning? a) 0.5% bleach solution; b) 10% bleach solution; c) 1% chloramine solution; d) 3% hydrogen peroxide solution;
 - e) a solution of potassium permanganate.
- **3.** How often should wards be wet cleaned? a) daily; b) as needed:
 - c) as needed, but at least twice a day.
- **4.** What contributes to the appearance of cockroaches in hospital departments?
 - a) untimely disposal of food waste and poor cleaning of the premises of the catering unit; b) cracks in walls and baseboards; c) nosocomial infections;
 - d) insufficient sanitization of patients.
- **5.** For what purpose are patients with diseases of the cardiovascular system, suffering from severe shortness of breath, recommended to take a semi-sitting position in bed?
 - a) it is more convenient to feed in this position;
 - b) the stagnation of blood in the pulmonary circulation decreases; c) the risk of pressure ulcers decreases.
- **6.** What is the main purpose of a functional bed?
 - a) allows you to give the patient the most advantageous and convenient position for him; b) it can be easily and quickly moved; c) makes it easier for the medical staff to carry out their functions of treatment and care
- **7.** How often should you change your underwear and bedding? a) once every 10 days; b) weekly, after taking a bath or shower;
 - c) as it gets dirty, but at least once every 10 days.
- **8.** Can bedsores occur when patients are forced to sit?
 - a) they cannot, since bedsores are formed only when the patient is on his back, on his stomach or on his side;
 - b) can, in the area of the ischial tuberosities;
 - c) they cannot, because in a sitting position between the bone protrusions and the mattress there is a large layer of subcutaneous fat and muscle tissue.
- **9.** Why can't the liner be inflated too much?
 - a) it will quickly fail;
 - b) it will be difficult for him to give a stable position in bed c) he must change his shape when the patient moves.
- **10.** What should be done in the early stages of pressure ulcers?
 - a) to strengthen all preventive measures (keeping the bed, changing the position of the patient, careful toilet of the skin);
 - b) use various biologically active ointments;

- c) to carry out surgical treatment;
- d) prescribe physiotherapy to the affected area (UHF, UFO)
- e) treat the affected areas with 1% brilliant green solution, a strong solution of potassium permanganate, 5-10% iodine solution.
- 11. A seriously ill patient has increased fragility and slight hair loss. Does he need to comb his hair?
 - a) be sure and as often as possible;
 - b) try not to comb your hair at all;
 - c) brush as usual, but use a sparse comb.
- **12.** A patient with pneumonia, receiving penicillin, developed white plaques on the oral mucosa. What should be done?
 - a) enhance oral care:
 - b) take a swab from the oral mucosa for bacteriological examination; c) recommend the patient to brush their teeth more often; d) recommend to the patient to remove dentures;
 - e) prescribe antifungal drugs (for example, nystatin).
- **13.** Why is it inappropriate to instill more than 1-2 drops of medicinal solutions into the eyes? a) eye drops contain potent substances; b) more than 1 drop of solution is not retained in the conjunctival cavity;
 - c) a large amount of fluid adversely affects the condition of the conjunctiva.
- 14. Is it necessary to recommend the patient to throw his head back in case of nosebleeds?
 - a) yes, because this will stop the bleeding faster;
 - b) should be recommended only for very severe nosebleeds;
 - c) not necessary, as the bleeding will not stop; blood will flow down the back wall of the nasopharynx, which makes it difficult to correctly assess the dynamics of bleeding.

TOPIC 5: FOOD FOR THE PATIENTS.

Educational purpose: to teach students a tactful attitude towards patients when cleaning wards, utility rooms, when feeding seriously ill patients.

Equipment of the lesson: drinking cups, probes for therapeutic nutrition, microclysters, medical equipment of the therapeutic department, stands, tables on the topic.

The student should know:

- 1. Arrangement and equipment of chambers.
- **2.** General and sanitary regime of the therapeutic department.
- **3.** Internal routine. Organization of visits to patients.
- **4.** Types of medical nutrition.
- **5.** Artificial nutrition of patients: with the help of probes, through a fistula of the stomach, parenterally.
- **6.** Organization of the work of the post of a nurse.

The student should be able to:

- 1. Carry out wet cleaning fell, t with the preparation of 0.5 and 1% solution of bleach.
- **2.** Monitor the sanitary condition of the bedside tables.

3. To carry out feeding of seriously ill patients and giving drink from a sippy cup.

Plan and organizational structure of the lesson.

- 1. Greetings.
- **2.** The role of student attendance.
- **3.** Introductory remarks by the teacher. Target setting.
- **4.** Home assignment.
- 5. Control and correction of the initial level of knowledge:

one. Goals and objectives of diet therapy.

Dietetics - the doctrine of the rational nutrition of a healthy and sick person.

- **2.** The basic principles of nutritional therapy.
- 3. Types of medical nutrition.
- **4.**Characteristics of dietary tables.
- **5.**Organization of meals.
- **6.** Distribution of food to the sick.
- 7. Monitoring patient visits and transmissions.

Monitoring the sanitary condition of bedside tables.

- **8.** Feeding seriously ill patients.
- **9.** Types of feeding of patients: a) active b)

passive

c) artificial

10. Artificial nutrition. Indications for its use. Types: a) enteral

(tube) b) parenteral

eleven.Methods of artificial feeding of patients:

- a) through a probe
- b) through the fistula of the stomach
- c) nutritional enema
- d) intravenous administration of medicinal substances
- e) s / c administration of medicinal substances
- 12. Feeding the sick with nutritional enemas.
- **6.** Acquaintance with the therapeutic department, food handouts.
- 7. Independent work in the wards.

Questions to control the initial level of knowledge

1. Name the types of feeding of patients.

Answer: 1. Active

- 2. Passive.
- 3. Artificial.
- **2.** What are the methods of artificial feeding of patients.

Answer: 1. Through a probe.

- 2. Nutritional enema.
- 3. Through the fistula of the stomach.
- 4. Intravenous administration of medicinal substances.
- 5. S / c administration of medicinal substances.
- **3.** How many treatment tables are there? Answer: 15 tables.
- **4.** Which table is assigned:
 - a) in diseases of the cardiovascular system?

- b) in case of liver diseases?
- c) with stomach diseases?
- d) with kidney disease?

Answer: 1.10 table (diet 10)

- 2. 5 table.
- 3. 1 table.
- 4. 7 table.

FEEDING OF PATIENTS

Rational nutrition of the patient is one of the most important conditions for proper and effective care and has a direct therapeutic value.

Dietetics is the doctrine of rational nutrition for a healthy and sick person. The diet determines the diet, composition and amount of food. Diet therapy aims to restore metabolic disorders, to influence the painful process, to exclude products that have a harmful effect on diseased organs, and all this to improve the condition of patients.

An important element of nutrition is a regimen, which should be understood as adherence to dietary prescriptions (tables), the intervals between individual meals; portion size, taste and physical properties of food are also important. The temperature of hot dishes should be about 60 $^{\circ}$ C, and cold 10-15 $^{\circ}$ C.

We should not forget about the importance of appetite and all that contributes to it. Of great importance is the aesthetic design of dishes, table setting, as well as the creation of a calm atmosphere during meals. Tables in the dining room should be designed for 2-4 people, and unite patients on the same diet.

For various categories of patients in our country, the Institute of Nutrition of the Academy of Medical Sciences has developed 15 basic diets, also called tables. There are therapeutic indications for each diet (treatment table), which are taken into account by the attending physician.

DIET number 1a

INDICATION: gastric ulcer and duodenal ulcer in the period of acute exacerbation (in the first 8-10 days of exacerbation); acute gastritis and exacerbation of chronic gastritis in the first 2 days.

GENERAL DESCRIPTION: sharp limitation of chemical and mechanical irritants of the mucous membrane of the receptor apparatus of the upper gastrointestinal tract; substances that linger in the stomach for a long time, stimulants of gastric secretion. Fractional food intake - 7 times a day, table salt up to 8 g per day.

LIST OF RECOMMENDED DISHES: slimy soups from cereals (oatmeal, pearl barley, rice, semolina) with the addition of an egg-milk mixture, cream, butter. Meat and fish steamed soufflés, puree from lean meats, poultry and fish without fascia, tendons, skin. Pureed oatmeal, semolina, rice, buckwheat cereals with the addition of milk or cream. Soft-boiled eggs, steamed omelets, beaten egg whites. Kissels and jelly from sweet varieties of berries and fruits, sugar, honey, sweet fruits and berry juices in half

c water and sugar. Whole milk, condensed, cream, freshly prepared unleavened horn. Milk tea is weak, rosehip broth with sugar. Butter and olive oil are added to ready meals.

FORBIDDEN: dishes and side dishes of vegetables, mushrooms, bread and bakery products, lactic acid products, spices, snacks, coffee.

DIET number 16

INDICATIONS: exacerbation of gastric ulcer and duodenal ulcer (10-20th day of the disease), acute gastritis (2-3rd day).

GENERAL CHARACTERISTIC: moderate mechanical, chemical and thermal sparing compared to table 1a. Fractional food intake 6-7 times, table salt up to 8-10 g per day

LIST OF RECOMMENDED DISHES: to the products of diet 1a add white bread rusks of the highest grade, thinly sliced and not browned; low-fat varieties of meat, poultry and fish without tendons and skin, minced steam cooking or boiled in water fries, dumplings, etc.

DIET number 1

INDICATIONS: gastric ulcer and duodenal ulcer in the period of exacerbation without pronounced symptoms of "irritated stomach"; chronic gastritis with preserved secretion during an exacerbation. GENERAL CHARACTERISTIC: moderate mechanical, chemical sparing of the mucous membrane and receptor apparatus of the gastrointestinal tract, limitation of gastric secretion stimulants and substances that linger in the stomach for a long time. Food intake 5-6 times, table salt up to 8-10 g per day.

LIST OF RECOMMENDED DISHES: Yesterday's wheat bread, dry biscuit. Soups on a slimy broth with the addition of mashed boiled vegetables and cereals, egg-milk mixture, cream. Low-fat varieties of fish, meat and poultry are mainly chopped, steam-cooked or boiled in water. Boiled and mashed vegetables (mashed potatoes, steamed soufflés). Mashed porridge (except wheat) with the addition of milk or cream, mashed steam puddings, boiled noodles. Soft-boiled eggs, steamed omelets, whipped egg whites (snowballs, meringues). Kissels, jellies, mousses, mashed compotes from sweet varieties of berries

и fruit, apple marmalade. Whole milk, condensed milk, cream, fresh sour cream, fresh low-fat cottage cheese. Mild tea with milk or cream, rosehip broth with sugar. Butter and vegetable oil (olive, sunflower).

FORBIDDEN: white cabbage, turnip, radish, rutabaga, radish, sorrel, spinach, onion, garlic, mushrooms, legumes, spices and coffee.

DIET number 2

INDICATIONS: acute gastritis, enteritis and colitis during convalescence as a transition κ rational nutrition; chronic gastritis with secretory insufficiency, enteritis, colitis in the period of stable remission.

GENERAL CHARACTERISTIC: a physiological full-fledged diet with the exclusion of foods and dishes that are stressful for the gastrointestinal tract, lingering in the stomach for a long time, difficult to digest, but promoting an increase in gastric secretion. Intake of food fractional 4-5 times a day, table salt up to 15 g per day.

LIST OF RECOMMENDED DISHES: Yesterday's wheat bread, 1-2 times a week a limited number of uncooked rolls or baked pies. Soups based on fat-free meat and fish broth with various cereals (except millet) noodles, vegetables. Low-fat meats and poultry, boiled or chopped, fried without breading. Fish, lean in a piece, chopped, boiled, baked, fried without breading. Cooked vegetables, stewed and baked in pieces, in the form of mashed potatoes, vegetable casseroles. Loose porridge (except for millet and pearl barley) in water with the addition of milk.

Soft-boiled eggs, steamed, baked and fried omelets, whipped egg whites. Kissels, compotes, jellies, mousses from sweet varieties of berries and fruits, raw sweet varieties of berries and fruits (strawberries and strawberries), baked apples, marmalade, sugar. Fresh milk only in dishes, dairy products (acidophyllin, kefir), fresh cottage cheese, non-sour raw and baked, fresh sour cream no more than 15 g per dish. Dill greens, pet-rushka, cinnamon, cloves, vanilla, small amounts of bay leaves, allspice, meat, fish, sour cream and vegetable sauces. Tea, coffee with milk or cream, black coffee, broth of wild rose, black currant. Butter and sunflower oil.

PROHIBITED: legumes and mushrooms.

DIET number 3

INDICATIONS: chronic intestinal diseases with a predominance of constipation during a period of moderate exacerbation and remission.

GENERAL CHARACTERISTIC: An increase in the diet of foods that enhance motor function. Food intake 3 times, table salt up to 12-15 g per day.

LIST OF RECOMMENDED DISHES: wheat bread made from coarse flour or with the addition of wheat bran, with good tolerance, brown bread (table, Orlovsky, rye) is allowed. Soups based on weak fat-free meat, fish broth, vegetable broth (mainly with vegetables). Low-fat meat - beef, veal, chicken, etc. Low-fat fish (pike perch, bream, navaga, cod, carp, pike) boiled, steamed, aspic, in chunks, sometimes chopped. A variety of vegetables: raw and boiled for side dishes, in the form of salads, vegetable casseroles (beets, carrots, tomatoes, pumpkin, etc.). Loose porridge (buckwheat, pearl barley). Soft-boiled eggs or in the form of steamed omelets, no more than 2 pieces per day. Fresh, ripe, sweet fruits and berries, raw and in dishes in increased quantities. Milk in dishes and for tea. Acidophilus, kefir, fermented baked milk, yogurt, etc. Mild cheese. Tea, rosehip broth, sweet fruit juices (especially plum, apricot), vegetable juices (tomato, carrot, etc.). Butter and olive oil in dishes.

FORBIDDEN: vegetables rich in essential oils (turnip, radish, onion, garlic, radish, as well as mushrooms.)

DIET number 4

INDICATIONS: acute and chronic intestinal diseases during the period of profuse diarrhea and pronounced dyspeptic symptoms.

GENERAL CHARACTERISTIC: a sharp limitation of mechanical and chemical irritants of the mucous membrane and the receptor apparatus of the gastrointestinal tract, with the exception of foods and dishes that enhance the motor function of the intestine. Eating fractional food 5-6 times, table salt 8-10 g per day.

LIST OF RECOMMENDED DISHES: Fine white bread rusks, thinly sliced. Soups based on low fat-free meat or fish broth with the addition of slimy broths, steamed or boiled in water meat or fish dumplings, meatballs, egg flakes. Steam or boiled in water meat and fish cutlets, dumplings, meatballs, soufflé from boiled meat or fish. Lean meat in chopped form, boiled or steamed, Poultry and fish, lean in natural form or minced, boiled or steamed. Mashed porridge in water or fat-free meat broth (rice oatmeal, buckwheat, semolina). Eggs (with good tolerance) no more than 2 pieces per day in the form of steam omelets. Kissel, jelly from blueberries, bird cherry, ripe pears and other berries and fruits rich in tannins. Natural tea, black coffee, cocoa in water, broth of wild rose, blueberry, bird cherry.

RESTRICTED: sugar up to 40 g, butter 40-50 g, cream.

FORBIDDEN: pasta, milk, vegetable fiber, sauces, spices, smoked meats, snacks, pickles, legumes.

DIET number 5

INDICATIONS: chronic hepatitis with benign and progressive course and

B stages of compensation; chronic cholecystitis during exacerbation and remission, cholelithiasis. Acute hepatitis and cholecystitis during the recovery period.

GENERAL DESCRIPTION: maximum sparing of the liver. Strong stimulators of gastric and pancreatic secretion (extractive substances, foods rich in essential oils), fried foods containing products of incomplete breakdown of fat (acroleins and aldehydes), refractory fats, foods rich in cholesterol, purines are excluded.

Increased carbohydrate content. Intake of food fractional 5-6 times a day, table salt 8-10 g per day. LIST OF RECOMMENDED DISHES: yesterday's wheat and rye bread, crackers,

dry biscuit. Soups with vegetable broth with various cereals and vegetables, dairy, fruit. Low-fat meats and poultry - boiled, baked after boiling. Low-fat boiled or steamed fish, in chunks and chopped. Vegetables and herbs in raw, boiled and baked form (salads, vinaigrette), non-sour sauerkraut. Egg white dishes (steamed and baked protein omelets, snowballs, meringues). Various sweet varieties of berries and fruits, fresh and dried, in natural form and in dishes. Sugar, honey, marmalade, marshmallow, toffee, jam, candy. Fresh milk in its natural form and in dishes, fermented milk drinks, fresh cottage cheese, cheese. Eggs in dishes. Tea and coffee are weak with milk and without milk; fruit, berry, vegetable juices, rosehip decoction. Butter and vegetable oil (do not fry, add to ready-made dishes).

FORBIDDEN: turnip, radish, radish, sorrel, spinach, onion, garlic, mushrooms, spices, cocoa.

DIET number 5a

INDICATIONS: acute hepatitis and cholecystitis, exacerbation of chronic hepatitis, cholecystitis and gallstone disease with concomitant diseases of the stomach and intestines. Acute and chronic pancreatitis.

GENERAL CHARACTERISTIC: the same as with diet No. 5, but with mechanical and chemical sparing of the stomach and intestines.

LIST OF RECOMMENDED DISHES: Yesterday's wheat bread, dry biscuit. Sou-pies on a slimy broth with grated cereals and vegetables with the addition of an egg-milk mixture and butter or on a vegetable broth with well-boiled cereals (rice, semolina) and finely chopped vegetables (potatoes, carrots, zucchini, etc.), vermicelli.

Steam meat cutlets, meat souffle. Low-fat boiled fish, steam soufflé from it. Boiled vegetables, steam, pureed. Various cereals (except millet and pearl barley) on the water

и with the addition of "milk. Steam and baked protein omelets, snowballs, meringues. Kissel

и mashed compotes, jellies, mousses. Soufflé from fresh and dry sweet varieties of berries and fruits, sugar, honey, baked apples and pears. Milk only in dishes, lactic acid products and fresh cottage cheese. Teas and coffee with milk, rosehip broth, fruit and berry juices from sweet varieties of berries and fruits mixed with hot water. Butter and vegetable oil only in dishes.

FORBIDDEN: snacks, spices, cabbage, turnips, radishes, sorrel, spinach, cocoa.

DIET number 6

INDICATIONS: gout, urine acid diathesis, oxaluria.

GENERAL DESCRIPTION: restriction of foods rich in purines, oxalic acid, calcium, restriction of proteins, fats, carbohydrates. Eating 3-4 times, table salt up to 6-8 g.

LIST OF RECOMMENDED DISHES: lean beef, lamb, pork, fish. Milk, dairy and lactic acid products, eggs are not limited. We recommend potatoes, rice, pasta, cereal dishes, carrots, lettuce, melon, cucumbers, cabbage, onions, tomatoes, fruits (grapes, plums, cherries, pears, peaches, etc.), berries.

RESTRICTED to: green peas, beans, lentils, sorrel, spinach, lettuce, rhubarb, radish, mushrooms. FORBIDDEN: offal (liver, kidneys, lungs, brains), meat broth, meat of young animals (lamb, veal, chicken, piglets), tea, coffee, cocoa, chocolate, hot cheeses, canned food, sausages.

DIET number 7

INDICATIONS: acute nephritis, during convalescence, chronic nephritis with insignificant changes in urine sediment.

GENERAL CHARACTERISTIC: restriction of protein and table salt to 3-5 g; liquids -

up to 800 ml - 1 l; extractives, hot spices.

LIST OF RECOMMENDED DISHES: white bread and bran without salt, vegetarian soups skies without salt with vegetables and cereals. Low-fat meats and poultry. Lean fish in a piece, chopped, mashed, boiled. Vegetables in natural, boiled form, vinaigrette, salads without salt. Cereals and pasta in the form of cereals, puddings. One egg per day. Fruit and berries in any form, honey, sugar, jam. Milk and dairy products, cottage cheese. Oil drained milk and vegetable.

RESTRICTED TO: cream, sour cream.

FORBIDDEN: legumes.

DIET number 7a

INDICATIONS: acute nephritis, exacerbation of chronic nephritis with pronounced changes in the urine.

GENERAL CHARACTERISTIC: limitation of salt to 1-2 g and liquid to 600-800 ml, protein, maximum vitaminization of the diet due to the introduction of fruit and vegetable juices and the addition of vitamin C.

RECOMMENDED DISHES LIST: Same foods as diet 7, but meat and

fish is limited to 50 grams per day.

FORBIDDEN: soups.

DIET number 8

INDICATIONS: obesity.

GENERAL DESCRIPTION: restriction of energy value by 20-50% (depending on the degree of obesity and physical activity) mainly due to carbohydrates and fats with an increase in the amount of protein. Limiting table salt to 3-5 tons and liquid to 1 liter. Eating 5-6 times.

LIST OF RECOMMENDED DISHES: Yesterday's simple rye bread - 100-150 g.

Vegetarian soups with vegetables and cereals, meat, fish. Meat, fish, with vegetable

butter, buckwheat porridge. Milk and lactic acid products (skimmed). Fruit and

raw berries and juices from them. Tea and coffee.

RESTRICTED to: butter, sour cream, potatoes.

FORBIDDEN: flavoring seasonings.

DIET number 9

INDICATIONS: diabetes mellitus.

GENERAL DESCRIPTION: diet with the exclusion of water-soluble carbohydrates, limitation of animal fats. The diet helps to eliminate metabolic disorders caused by an insufficient amount of insulin in the body. Eating 4-5 times, table salt 12 g per day.

LIST OF RECOMMENDED DISHES: simple shaped rye bread, cookies on xi-lit. Vegetable soups with vegetables and cereals. Buckwheat and oatmeal porridge. Potatoes, zucchini, cucumbers, etc. No more than 2 eggs per day. Low-fat varieties of meat, poultry, fish .. Compote on xylitol, fruit juices

и vegetables, fruits and berries (prunes, apricots, watermelons, strawberries, raspberries). Whole milk, sour cream in dishes. Butter in dishes, sunflower and olive oil. Sweets up to 30-50 g per day (sugar is replaced with sorbitol or better with xylitol).

LIMIT: legumes, cereals, pasta.

DIET number 10

INDICATIONS: exacerbation of cardiovascular diseases with impaired blood circulation of 1-HA degree (rheumatism, in the active phase, hypertension, ischemic heart disease, etc.), diseases of the kidneys and urinary tract without impairing the nitrogen-releasing function of the kidneys.

GENERAL CHARACTERISTIC: moderate restriction of proteins, fats and carbohydrates under conditions

in a mode with limited mobility. Limiting the intake of table salt to 4-7 g (at the norm for a healthy body 12-15 g), liquids up to 1-1.2 liters, and with edema - 0.8 liters. LIST OF RECOMMENDED DISHES: coarsely ground gray bread, crackers. Cereal soups, dairy soups, vegetarian soups, borscht, low-fat meat broth once a week. Low-fat meats; boiled and baked poultry and fish. Oatmeal and buckwheat porridge, poo dingi and casseroles. Protein omelet. Vegetable vinaigrette and salads (except sorrel and mushrooms). Fruits, berries, juices. Fat per day up to 50 g, of which 50% are vegetable. Sugar up to 40 g per day. Weak tea.

RESTRICTED: strong tea, coffee, cocoa, radish, radish, garlic, onions, legumes.

LIST OF RECOMMENDED DISHES: meat, fish, bread and cereal products.

RESTRICTED: milk and dairy products, vegetables, hot snacks, spices, etc. FORBIDDEN: fatty meat, fish, pastry, brains, kidneys, liver, sausage, salty snacks, canned food, alcohol, caviar.

DIET number 11

INDICATIONS: pulmonary tuberculosis, exhaustion and decreased reactivity of the body, during the period of convalescence, after infectious diseases, anemia, various suppurative processes. Eating 5 times, table salt up to 12-16 g.

GENERAL DESCRIPTION: a diet with increased energy value, an increase in animal proteins, lipotropic substances, calcium, phosphorus and vitamins.

RECOMMENDED DISHES LIST: a wide variety of products. It is necessary that at least half of the protein comes from meat, fish, cottage cheese, milk, eggs. FORBIDDEN: poultry (duck and goose).

DIET number 13

INDICATIONS: acute infectious diseases, postoperative period (except for hollow operations). GENERAL DESCRIPTION: restriction of proteins, fats, carbohydrates, chemical and mechanical irritants of the mucous membrane and the receptor apparatus of the gastrointestinal tract. Food is predominantly liquid with limited plant fiber, milk, snacks. Food intake 6-8 times, depending on the patient's condition, in small portions, table salt up to 8 g.

LIST OF RECOMMENDED DISHES: white bread and crackers. Meat broth, meat souff-le. Souppuree of meat in a slimy broth. Soft-boiled eggs, scrambled eggs. Mashed porridge. Fruit, berry juices, fruit drinks, jelly. Butter.

DIET number 14

INDICATIONS: phosphaturia with stone formation.

GENERAL DESCRIPTION: the content of proteins, fats, carbohydrates, within the physiological norms of need. The diet includes acidic foods and severely restricts alkaline foods and calcium-rich foods; limit nutrients that excite the nervous system. Eating 4 times, table salt up to 15 g.

DIET number 15

INDICATIONS: all diseases in the absence of indications for the appointment of a special diet. GENERAL DESCRIPTION: a physiologically complete diet with double the amount of vitamins and the exclusion of fatty meat dishes. Eating 4-5 times, table salt up to 12-15g.

LIST OF RECOMMENDED DISHES: white and rye bread. A wide variety of soups (dairy soups on fat-free broth with cereals, vegetables, noodles) Low-fat types of meat, poultry. Any fish. Eggs and dishes from them. Various cereals and pasta. Vegetables and fruits are different. Milk and dairy products. Sauces and spices are different. Tea, coffee, cocoa,

fruit and berry juices. Butter and vegetable oil.

DIET number 16

INDICATIONS: prescribed for 2-3 days after operations on the gastrointestinal tract; on the lungs, mediastinum, heart - on the 1st day, with febrile, semi-conscious states (traumatic brain injury). GENERAL DESCRIPTION: low-calorie diet, sharply limit the content of proteins, fat, table salt.

The diet includes only liquid and jelly foods. Eating every 2 hours, around the clock, table salt 1.5-3

LIST OF RECOMMENDED DISHES: tea with sugar, fruit and berry jelly. Jelly; broth of wild rose with sugar, rice water, weak broth, various juices, diluted with sweet water.

Patients, especially the elderly, can often suffer from a combination of various diseases, such as peptic ulcer and chronic cholecystitis, liver cirrhosis and diabetes mellitus. In such cases, patients should select individual diets (tables), coordinating their composition with the hospital's dietician and using the products available at the catering unit for this.

In order to normalize certain metabolic disorders (for example, fat metabolism, uric acid metabolism, etc.), some patients are recommended so-called fasting days, usually prescribed 1-2 times a week. The food ration during such fasting days includes, as a rule, any one type of food (fruits, cottage cheese, milk, etc.) and is most often characterized by a reduced calorie content. For example, with hypertension, atherosclerosis, obesity, curd (400-600 g of cottage cheese and 2 glasses of milk or kefir per day) or apple (1-1.5 kg of apples per day) fasting days are used, and the entire volume of food is distributed evenly portions for 5-6 receptions. Complete fasting is a very responsible and far from safe measure; it can be applied only in the conditions of specialized departments and according to strict indications. It is especially unacceptable to use medical fasting on your own, without constant medical supervision. Cases of severe complications are described, for example, profuse bleeding from acute ulcers of the stomach and duodenum, which arose against the background of prolonged "therapeutic" fasting, carried out independently, at home.

B the organization of meals for patients in the hospital is attended by both medical workers and catering workers.

The doctor who examines and treats the patient prescribes a specific diet for him, making an appropriate note in the medical history.

The ward nurse makes portions (fig.), Which indicates the total number of patients receiving one or another table of medical nutrition.

The doctor who examines and treats the patient prescribes a specific diet for him, making an appropriate note in the medical history.

The ward nurse makes portions (fig.), Which indicates th	ie total number of patients receiving one or
another table of medical nutrition.	
Based on the summation of the data of all portion	ers at the food block, the required amount
of the required dishes is prepared.	
	Form N 1-84
(name of instituti	ion)
Portion mak	er
for the nutrition of patients	200year
	4

1. Information	about the presence of patients		
as of —	– people	200	_year

Name pa- lat (branches) and	Number	Including diets								
lat (branches) and nutritional norms	sick									

Rice. Portion maker.

The general daily management of the nutrition of patients (as a rule, in large hospitals) is carried out by a nutritionist, who is responsible for the correct formulation and application of therapeutic diets. The dietitian, in addition, provides advice to the doctors of the departments regarding the most optimal choice of the table of therapeutic nutrition. The direct management of the work of the catering unit (control of the quality of products, their bookmarking, cooking, delivery to departments, etc.) is entrusted to the hospital dietitian. Distribution of ready-made food is carried out only after the sample is taken by the hospital doctor on duty.

Control questions.

- **1.** List the goals and objectives of diet therapy.
- **2.** Give a brief description of dietary tables.
- **3.** How is the distribution of food to patients organized?
- **4.** How are seriously ill patients fed?
- **5.** List the types of artificial nutrition, indications for its use.
- **6.** What are the features of diet therapy for patients who stay for a long time in the bed.

TEST CONTROL

- 1. What should be the ratio of proteins, fats and carbohydrates in the diet of patients?
 - a) 1: 1: 4;
 - b) the protein content should prevail;
 - c) the ratio of proteins, fats and carbohydrates should be determined by the nature of the disease.
- **2.** Is it rational to increase the energy value of the food ration by increasing the protein content in it?
 - a) yes, since 1 g of protein gives the body 4.1 kcal;
 - b) no, because 1 g of protein provides significantly less energy than 1 g of fat;
 - c) no, since proteins are mainly used as a plastic material.
- **3.** How important is the inclusion of dietary fiber in the diet for the body?
 - a) the energy value of food increases;
 - b) the calorie content of the diet is reduced; c) the

function of the digestive system is normalized;

- d) the activity of the intestinal microflora is normalized;
- e) the intake of microelements into the body increases.
- **4.** What recommendations would you give to a patient with insufficient circulation of blood on the preparation of a food ration?
 - a) restriction of fluid intake;

- b) reducing the consumption of table salt;
- c) mechanical sparing;
- d) reducing the calorie content of the diet.
- 5. What recommendations would you use when compiling a food ration for a peptic ulcer patient?
 - a) frequent, fractional meals;
 - b) limiting fluid intake;
 - c) mechanical and chemical sparing;
 - d) reducing the calorie content of the diet;
 - e) an increase in protein content in the diet; f) organization of fasting days.
- **6.** What recommendations would you give to a patient with chronic renal failure on the preparation of a food ration?
 - a) decrease in fluid intake; b) an increase in

fluid intake:

c) a decrease in the protein content in the diet; d) an increase in protein content in the diet.

- **7.** List the functions of a dietitian when organizing meals for patients:
 - a) compilation of portions;
 - b) control of the layout menu;
 - c) taking a sample;
 - d) advisory assistance to doctors of departments in matters of medical nutrition; e) control of the correctness of the preparation and application of therapeutic diets.
- **8.** What are the functions of a dietician in organizing meals for patients?
 - a) compilation of portions; b) taking a sample;
 - c) control over the quality of products and their bookmarking; d) control of the delivery of finished food to the departments.
- **9.**In what cases is artificial feeding of patients through a nasogastric tube used? a) with burns, inoperable tumors of the esophagus and pharynx; b) after operations on the esophagus; c) in case of violation of swallowing; d) with fractures of the jaws;
 - e) with an unconscious state.
- 10. In what cases is artificial feeding of patients through a gastrostomy tube used?
 - a) with disorders of swallowing after disorders of cerebral circulation
 - b) after operations on the esophagus;
 - c) with inoperable tumors of the esophagus;
 - d) with injuries of the jaws;
 - e) in cases of refusal to eat with mental illness.
- **12.** What is parenteral nutrition?
 - a) food, which is carried out artificially; b) the introduction for the purpose of nutrition of mixtures of a certain composition;
 - c) the introduction for the purpose of nutrition of various substances, bypassing the gastrointestinal tract.

TOPIC 6: BODY TEMPERATURE AND ITS MEASUREMENT.

Educational purpose: to teach students to observe the principles of medical ethics of deontology in thermometry, to teach students the technique of measuring body temperature, its graphic recording in a temperature sheet, to teach students to differentiate the types of fever and provide emergency assistance to febrile patients.

Equipment of the lesson: a set of medical thermometers, temperature sheets, stands, tables on the topic.

The student should know:

- 1. Storage of thermometers and their disinfection.
- **2.** The main methods of measuring temperature. Necessary measures to ensure correct temperature measurement.
- **3.** Measurement time. Registration of temperature measurement results
- **4.** Age features of temperature reactions.
- **5.** Febrile patient care.

The student should be able to:

- **1.** Measure your body temperature.
- **2.** Register the measurement results in a temperature sheet.
- **3.** To care for febrile patients, depending on the period of fever.

Plan and organizational structure of the lesson.

- **1.** Greetings.
- 2. The role of student attendance.
- **3.** Introductory remarks by the teacher. Target setting.
- **4.** Home assignment.
- **5.** Control and correction of the initial level of knowledge:
 - **1.** Who first proposed a medical thermometer.
 - **2.** Name the types of thermometers that are used to measure body temperature in humans.
 - 3. Storage of thermometers and their disinfection.
 - **4.** Thermometry. On what processes does the body temperature of a person depend?
 - **5.** The main methods of measuring temperature. Necessary measures to ensure correct temperature measurement.
 - **6.** Technique for measuring body temperature.
 - 7. Technique for measuring body temperature in emaciated and seriously ill patients.
 - **8.** Registration of temperature measurement results in a temperature sheet.
 - **9.** Age features of temperature reactions.
 - **10.** Fever, types of fevers according to the height of the temperature, according to the duration, according to the nature of temperature fluctuations.
 - 11. Types of fevers in a graphic image.
- **6.** Clinical analysis of patients with various types of fever.
- 7. Independent work of students in the department with patients.
- **8.** Discussion of the results of independent work.
- **9.** Control and correction of the final level of mastering the educational material (solving situational problems).

Tests-assignments to control the initial level of knowledge.

1. What are the methods for measuring body temperature?

Answer: Body temperature can be measured with a mercury medical thermometer with a Celsius scale, an electrothermometer, and a liquid crystal thermometer.

2. Why is a medical thermometer called the maximum?

Answer: A medical thermometer is called a maximum thermometer because the mercury column does not drop when measuring the temperature after cooling.

3. How; should i keep a medical thermometer?

Answer: A medical thermometer is stored in a glass, on the bottom of which cotton wool is placed, a disinfectant solution (0.5% chloramine solution) is poured.

4. What is the technique for measuring body temperature?

Answer: 1. Before measuring body temperature, wipe the thermometer thoroughly, shake it until the mercury level is below 35 ° C.

- 2. Wipe the armpit with a dry towel.
- 3. Place the thermometer like this. so that the mercury reservoir is in contact with the body on all sides.
- 4. Measurement duration 15 minutes.
- 5. Enter the readings on the temperature sheet.
- **5.** How many times and at what time of the day is body temperature measured in the hospital? *Answer:* In the hospital, body temperature is measured twice: in the morning at 8 o'clock and at 16-18 o'clock in the evening.
- **6.** How is the temperature curve drawn?

Answer: The temperature curve is obtained by connecting the morning and evening temperature points with straight lines during the observation time.

7. What is the normal temperature in the morning and evening?

Answer: Normal body temperature ranges: in the morning from 36 to 36.4 $^{\circ}$, in the evening from 36.6 to 37 $^{\circ}$.

- **8.** To what extent can the morning and evening temperature fluctuate in a healthy person? Answer: Morning and evening temperatures fluctuate within a degree.
- **9.** What is the temperature rise called?

Answer: A rise in temperature is called a fever.

10. What are the temperature drop options?

Answer: There are two types of temperature drop: 1 - crisis, 2 - lysis.

11. In which parts of the body can the temperature be measured?

Answer: The temperature can be measured: 1 - in the axillary depressions, 2 -

in the groin folds, 3 - in the rectum, 4 - in the oral cavity.

12.How much higher is the temperature in the rectum compared to the armpit? Answer: In the rectum, the temperature is higher by 0.5-1 °.

B depending on daytime temperature fluctuations, the following types of fevers are distinguished:

- 1) **persistent fever (febris continua):** the temperature is usually high, lasts a long time, daily fluctuations are noted within 1 ° C, usually in the range of 38-39 ° C. It occurs with croupous pneumonia, typhus and typhoid fever;
- 2) fever remitting (laxative) (febris remittens) with a temperature difference of more than $1 2^{\circ}$ C in the evening and in the morning. Typical for purulent diseases;
- 3) intermittent, or intermittent (febris interremittens), fever: fever

round rises to 39-40 ° C and above, followed by a rapid (after a few hours) fall to the norm or slightly below the norm. Fluctuations are repeated every 1-2 or 3 days. This type of fever is common in malaria:

- **4) recurrent fever (febris recurrens):** a sudden rise in temperature to 40 ° C and more is replaced by a drop in a few days to normal, which lasts for several days, and then the temperature curve repeats (from 2 to 5 attacks). This type of fever is characteristic of relapsing fever;
- 5) wave-like fever (febris undulans): there is an alternation of a constant increase in temperature with a gradual drop to normal and below normal, followed by a period without fever. Then a new increase occurs, followed by a decrease in temperature. A distinctive feature of wave-like fever from recurrent fever is a gradual increase in temperature with a gradual drop. This temperature is found in lymphogranulomatosis, brucellosis;
- 6) **fever perverted (reverse type of fever) (febris inversa) -** characterized by a rise in the morning temperature to a greater extent than in the evening. It occurs with pulmonary tuberculosis, sepsis;
- 7) **irregular fever** (**febris irregularis**):irregular daily fluctuations in temperature of various magnitude and duration. This temperature is found in rheumatism, dysentery, flu, etc.;
- **8) fever hectic, or wasting (febris hectica):** temperature fluctuations in the the day from 2 to 5 ° C with a rapid fall to the norm and below. This drop in temperature is accompanied by debilitating weakness with profuse sweating. It is observed in severe forms of tuberculosis, sepsis and lymphogranulomatosis.

B during most fevers, there are 3 stages:

1) *Temperature rise stage:* characterized by the predominance of heat production over heat transfer. Cooling of the surface layer of the skin reflexively causes tremors, and the sensation of cold is explained by irritation of the nerve endings of the skin due to a decrease in its temperature caused by spasm of superficial vessels.

When the temperature rises, breathing and heartbeat usually become more frequent: when it rises by $1 \,^{\circ}$ C, it usually becomes more frequent by 8-10 beats, and breathing by 4 respiratory movements per minute;

- 2) *Permanently elevated temperature stage:* characterized by increased product heat gain in comparison with its return;
- 3) *Temperature drop stage:* characterized by a decrease in heat production and an increase in its return. Decrease in temperature to normal values may differ. A gradual decrease in temperature to normal over several days is called

technical or lysis, a sharp drop in temperature - a critical or crisis.

FEVER CARE.

Fever patients need care taking into account changes in body temperature and condition.

A rapid increase in body temperature (the stage of temperature rise) is characterized by chills, that is, a feeling of coldness and tremors in the muscles, headache and aching pain throughout the body may disturb. During this period, it is necessary to create the patient's peace, lay him

в bed, cover well, put a heating pad at your feet. Depending on the patient's condition, it is recommended to drink hot tea or coffee at this time.

After the chill, a feeling of heat appears throughout the body (the stage of constantly elevated temperature), the higher the temperature and the more pronounced its fluctuations, the more the patient is exhausted. During a fever, toxic products are absorbed into the bloodstream, for the removal of which it is necessary to give patients a large amount of liquid in the form of fruit juices, fruit drinks, mineral water (the bottle should be previously held open to remove gases).

To increase the body's resistance, it is necessary to give food consisting of high-calorie and easily digestible foods in liquid or semi-liquid form, the diet should include fruit and berry juices. Table number 13 meets these requirements. In connection with a significant decrease in appetite, patients should be fed 4-6 times a day in small portions. The diet is limited to table salt, which leads to increased urine output. With a sharp headache, an ice pack, a cold compress, and wet wraps can be applied to the forehead.

With pronounced dryness of the oral cavity and the formation of cracks on the lips, it is necessary to wipe and irrigate the oral cavity with a 2% sodium bicarbonate solution, as well as lubricate the cracks with vaseline oil, 10% borax solution in glycerin or baby cream. A very high body temperature can be accompanied by darkening of the creature, delirium, and sometimes acute symptoms of excitement. Such patients need constant supervision of a nurse, monitoring of pulse rate, respiration and blood pressure level is required.

Y for febrile patients staying in bed for a long time, the nurse should take care of the skin and prevent pressure sores. With constipation, which is often found in febrile patients, a cleansing enema is given. Physiological dispatches should be performed by seriously ill patients in bed, therefore it is necessary that bed vessels and urinals be delivered to the patient on time.

The period of temperature decrease proceeds in different ways. The temperature can drop critically, that is, quickly, from high numbers to low (from 40 to 36 ° C). A critical drop in temperature with profuse sweating is often accompanied by symptoms of cardiovascular weakness (collapse). In this case, the limbs become cold to the touch, cyanosis of the lips appears, the skin becomes covered with sticky cold sweat, the pulse becomes threadlike. The nurse puts heating pads on such a patient, lifts the foot end of the bed by 30-40 cm and removes the pillow from under the patient's head. With profuse perspiration, change bed and underwear. At the very beginning of the crisis, a doctor is called to the patient and the nurse urgently fulfills his appointment. If necessary, substances that increase blood pressure are injected - mezaton, caffeine, cordiamine, sulfocamphocaine.

Y in most patients, the temperature decreases lytically, i.e. gradually, over several days. As a rule, there is a gradual improvement in the general condition of the patient.

Remember! A gradual decrease in temperature to normal values is called lysis, a sharp drop in temperature is critical. A critical drop in temperature can be accompanied by symptoms of cardiovascular weakness.

Tests-assignments to control the final level of knowledge.

1. Is the fluctuation in body temperature recorded in a healthy person in the morning and evening hours?

Answer: In a healthy person, temperature fluctuations are recorded in the morning and evening hours, but the temperature does not exceed 37 $^{\circ}$ C.

2. What age people have a slightly higher temperature than usual? *Answer:* In children.

- **3.** Who first proposed a medical thermometer and in what year?
 - Answer: The medical thermometer was first proposed by Fahrenheit in 1723.
- **4.**On what processes does the body temperature in humans and animals depend? Answer: From the processes of heat production and heat transfer.
- **5.**How to explain the daily fluctuations in body temperature occurring in the body? Answer: This is due to oxidative processes.
- **6.** In what areas of the human body is the body temperature measured in children? *Answer:* In the groin fold.
- **7.** What criteria are used in the interpretation of febrile curves?

Answer: Feverish increases in body temperature are varied in height, duration and nature of fluctuations.

8. What are the three main periods in the course of a fever?

Answer: The first is a period of a gradual increase in temperature, the second is a period of maximum increase, and the third is a decrease in temperature.

9. In what cases (diseases, conditions) does the body temperature decrease?

Answer: With heart failure, with a critical drop in temperature after a fever and with hypothermia.

10. What types of fevers do you know according to the height of

the temperature? Answer: Subfebrile (not higher than 38 ° C),

moderately febrile (38-39 ° C), high-fever (39-40 ° C),

hyperpyretic, excessively high (above 41 ° C).

11. What types of fevers do you know by duration?

Answer: Fleeting (increase in body temperature for several hours),

acute (within 15 days),

subacute (15 to 45 days),

chronic (over 45 days).

12.

What types of fevers do you know from the nature of temperature fluctuations?

Answer: Constant, remitting, intermittent, undulating, draining, out-of-rotation.

13. What is patient care according to the period of fever?

Answer: First period - warm heating pads to the legs, give the patient warm tea, good cover; monitor physiological departures;

second period - give the patient high-calorie and highly digestible food in liquid

form 5-6 times a day, drink plenty of fluids, monitor the toilet, oral cavity; watch out for bullets catfish and blood pressure;

third period - line the patient with heating pads, give strong tea or coffee, watch out for zhey (prevention of bedsores), diuresis, stool, wipe the skin with camphor alcohol.

Abstract Topics (UIRS).

- 1. The main types of fever.
- 2. Classification of fevers by duration.
- **3.** First aid for patients. With a sharp rise in temperature.
- **4.** Hypothermia, its types
- **5.** Caring for patients with hyperpyretic fever.
- **6.** Care and first aid for febrile patients at various periods of fever.
- **7.** Emergency first aid in case of a critical drop in body temperature.
- **8.** Hypothermia, etiology and first aid.

Questions for the final control of knowledge.

1. How to store medical thermometers correctly?

- 2. What requirements must be observed when measuring body temperature?
- **3.** Temperature sheet and the correctness of its filling.
- **4.** What are the types of fevers?
- **5.** What are the features of caring for febrile patients?
- **6.** What options for lowering the temperature in febrile patients do you know?
- **7.** What are the symptoms of a crisis and what is the emergency care for symptoms of cardiovascular weakness in a patient?

TEST CONTROL

- **1.** What conditions can lead to a physiological increase in body temperature? a) muscle efforts; b) sleep; c) food intake;
 - d) emotional stress;
 - e) infectious diseases.
- 2. For what purpose is it recommended to wipe the armpit dry before measuring the temperature?
 - a) for hygienic reasons;
 - b) that the thermometer is in a more stable position; c) in order not
 - to get underestimated measurement results.
- **3.** The body temperature measured in the patient's rectum is $37.1 \,^{\circ}$ C. How can you characterize this temperature?
 - a) as normal temperature;
 - b) as a moderately high temperature; c) as subfebrile temperature.
- **4.** Where should medical thermometers be kept in the department? a) in cases at the post of a nurse; b) in the jar at the bottom of which cotton wool is put and disinfection is added. solution; c) for each patient;
- **5.** What indicators are reflected in the temperature sheet? a) graphical representation of the temperature curve;
 - b) a graphical representation of the temperature curve, pulse curves, respiratory rate, blood pressure, body weight, urine output, laboratory data;
 - c) a graphic representation of the temperature curve temperature, pulse curves, respiratory rate, results of medical rounds.
- **6.** For 2 weeks in a patient, the morning temperature remains within 36.0-36.5 ° C, and the evening temperature is 37.5-38.0 ° C. What type of fever does the patient have?
 - a) laxative, remitting; b) exhausting,

hectic; c) perverted, incorrect d)

intermittent.

- 7. Why is it now rare for a persistent type of fever with croupous pneumonia? a) the microflora that causes the disease has changed; b) the reactivity of the patient's body has changed;
 - c) from the first days of the disease, antibiotic therapy is actively used.

- **8.** How do thermoregulation processes change in the first stage of temperature rise? a) the blood vessels of the skin are narrowed; b) the blood vessels of the skin expand;
 - c) heat production in skeletal muscles increases; d) sweating increases.
- **9.** How do thermoregulation processes change during the temperature drop? a) heat production in skeletal muscles increases; b) sweating increases; c) the blood vessels of the skin expand;
 - d) heat production in skeletal muscles decreases:
- 10. What kind of patient care should be taken in the first stage of fever (temperature rise stage)?
 - a) give the patient hot tea;
 - b) cover the patient warmly, overlay him with heating pads; c) change bedding; d) put a cold compress on the forehead.
- **11.** What kind of patient care should be used in the second stage of fever (the stage of maintaining the maximum temperature?
 - a) warm up the patient, cover with heating pads;
 - b) monitor the heart rate and respiration rate, blood pressure level; c) monitor the state of the central nervous system; d) take care of the oral cavity.
- 12. What kind of patient care measures should be taken in case of a critical drop in temperature?
 - a) carefully monitor the state of the cardiovascular system (pulse rate and its filling, blood pressure level, etc.);
 - b) timely change underwear and bedding; c) monitor the state of the oral cavity; d) warm up the patient and give him hot tea; e) carry out the prevention of pressure ulcers.

TOPIC 7: SIMPLE PHYSIOTHERAPY PROCEDURES.

Educational purpose: to teach students how to treat patients tactfully when setting cans, mustard plasters, compresses, using a heating pad, an ice bladder, and conducting water procedures.

Equipment of the lesson: jars, mustard plasters, hot water bottle, ice pack, leeches, towels, cotton wool, gauze, compress paper, petroleum jelly, bandages, alcohol, matches, forceps, tables on the topic.

The student should know:

- 1. The mechanism of action, preparation of the patient and the method of setting cans, mustard plasters, warming compresses, heating pad, ice bladder. Indications and contraindications for these manipulations. Activities after the procedure.
- **2.** The technique of setting leeches and removing them. Patient care after removing leeches. Storage of leeches. Indications for their appointment.
- 3. Water procedures, preparation of a medicinal bath, local baths (hand, foot,

- sedentary).
- **4.** Observing patients during the procedure and providing first aid in case of complications.
- **5.** Features of the implementation of the simplest physiotherapeutic procedures for patients of elderly and old age.

The student should be able to:

- 1. Put cans, mustard plasters, compresses.
- **2.** Prepare and apply a heating pad.
- 3. Apply an ice pack.
- **4.** Put on a compress.
- **5.** Prepare a healing bath.

Plan and organizational structure of the lesson.

- 1. Greetings.
- 2. The role of student attendance.
- **3.** Introductory remarks by the teacher. Target setting.
- **4.** Home assignment.
- **5.** Control and correction of the initial level of knowledge:
 - 1. Compresses, types of compresses:
 - What is the mechanism of action of the warming compress.
 - Indications and contraindications.
 - Preparing the patient technology of applying a compress.

2. Ice pack:

- Indications for use.
- How long can the ice pack be kept.
- What is the technique for using the ice pack.

3. Warmer:

- What is the device of heating pads.
- For what purpose is a heating pad assigned?
- Indications and contraindications.
- Method of using a heating pad.

4. Mustard plasters:

- What is the mechanism of action of mustard plasters.
- List the indications for the use of mustard plasters.
- Rules for storing mustard plasters.
- What are the signs of suitability of mustard plasters?
- Where can you put mustard plasters.
- Indications and contraindications.
- What is the sequence of setting mustard plasters?
- The technique of setting mustard plasters for hypertensive disease.

5. Banks:

- What is the mechanism of action.
- What accessories are needed for setting cans.
- Indications and contraindications.
- Rules for setting cans.
- **6.** Bloodletting. Indications and contraindications.

7. Leeches:

• What is the purpose of medicinal leeches.

- How does the setting of leeches affect blood pressure?
- How they are stored.
- On which parts of the body can leeches be placed.
- On which parts of the body they should not be placed.
- Rules for setting leeches.
- What are the complications after staging them.
- When can you put leeches again?
- **8.** Hydrotherapy (balneotherapy):
 - What are the rules of hydrotherapy.
 - Types of medicinal baths.
 - What is the mechanism of action.
 - Indications and contraindications.
 - Preparation of medicinal baths.
- **9.** Features of the implementation of the simplest physiotherapy procedures for elderly and senile patients.
- **7.** Independent work of students in the department with patients.
- **8.** Discussion of the results of independent work.
- **9.** Control and correction of the final level of mastering the educational material (solving situational problems).

Tests-tasks to control the initial level of knowledge

Mustard plasters.

1. What is the mechanism of action of mustard plasters?

Answer: Influence on blood circulation due to the action of essential mustard oil on the skin of the patient, irritating the skin and dilating the blood vessels.

2. List the indications for the use (setting) of mustard plasters.

Answer: 1. Pain. 2. Inflammation of the lungs 3. Bronchitis 4. Spasm of the blood vessels.

3... Rules for storing mustard plasters.

Answer: 1. In a dry and dark place 2. Not more than 11 months.

4. What are the signs of suitability of mustard plasters?

Answer: 1. Sharp smell of mustard oil. 2. Does not crumble.

5. Where can you put mustard plasters?

Answer: On all parts of the body, except for the palms and soles.

6. What is the sequence of setting mustard plasters? Answer: 1.

Moisten the mustard plasters in a warm manner (not at 45 °).

- 2. Shake off and apply on the desired area of the body for 10-15 minutes.
- 3. After removing the mustard plasters, wash the skin with warm water, wipe dry.
- 7. Contraindications for setting mustard plasters.

Answer: 1. Skin diseases.

- 2. Bleeding.
- 3. High sensitivity of the skin to mustard.
- 4. Heat.
- **8.** The technique of setting mustard plasters for hypertension. Answer: 1. On the

back of the head ("mustard collar") and on the calf muscles

2. Mustard plasters are applied to the gauze soaked in water and squeezed out to lengthen the heat effect.

Banks.

1. What is the mechanism of action of cans?

Answer: Due to the negative pressure created in the bank, a local inflow of blood and lymph to the skin from deep tissues and organs is caused, which has a reflexive

effect on the vessels of internal organs. Resorption of hemorrhages in the skin leads to the entry of biologically active substances into the bloodstream, which have a stimulating effect on distant tissues and organs.

2. Indications for the use of cans?

Answer: 1. Inflammatory processes in the organs of the chest.

- 2. Intercostal neuralgia.
- 3. Radiculitis.
- 4. Myositis.
- **3.** Contraindications to the setting of cans.

Answer: .1. Pulmonary bleeding.

- 2. Pulmonary tuberculosis.
- 3. Tumors of the chest organs.
- 4. Diseases of the skin and its sharp sensitivity.
- 5. Sharp exhaustion of the patient.
- 6. General state of intense excitement with convulsions.
- **4.** How to prepare a jar for consumption?

Answer: 1. Wash thoroughly with hot water 2. Wipe dry.

- 3. Check the integrity of the edges.
- **5.** Rules for setting cans.

Answer: 1. Wrap absorbent cotton wool on a metal rod 12-15 cm long.

- 2. Moisten it with alcohol, but not liberally.
- 3. Insert a burning swab into the jar and quickly attach the jar to the body.
- 4. Keep on the body for 15-20 minutes.
- **6.** How to withdraw banks?

Answer: With one hand, tilt the can to the side, and with the fingers of the other hand, press on the skin from the opposite side

7. What should be done after removing the cans?

Answer: 1. Wipe the skin with petroleum jelly. 2. Dress the patient warmly, cover with a blanket.

Leeches

1. What is the purpose of medicinal leeches?

Answer: For local hemorrhage and blood withdrawal, as an anticoagulant.

How does the setting of leeches affect blood pressure?

Answer: After setting the leeches, blood pressure drops.

- 3. How are leeches stored?
 - Answer: 1. In cans of water. 2. The water must be changed daily.
 - 3. Keep on the window at a room temperature of 10-15 $^{\circ}$.
- 4. What parts of the body should not be placed on leeches?

Answer: 1. To those places where the arteries and veins are located under the skin itself.

- 2. On the face. 3. On the palms and soles where the skin is very dense.
- 5. Rules for setting leeches.

Answer: 1. Usually 6 to 12 leeches are placed.

- 2. The patient's position is recumbent.
- 3.. I shave, wash, dry and wipe the skin at the site of suction.
- 4. Moisten the suction site with sweet water
- 5. Take the leech with tweezers and place it in a test tube with the head end to the hole
- 6. Place the leech in the right place and wait until it sucks.
- **6.** How long does it take to keep leeches?

Answer: Usually the leech lasts from 30 to 60 minutes. and the Sami disappears.

7. What should be done to remove the leech earlier?

Answer: Moisten the skin with salted water.

8. When can you put leeches on a patient again?

Answer: In a few days.

9. What should be done after removing the leeches?

Answer: Apply sterile wipes to wounds to avoid introducing infection.

Compresses.

1. What is the mechanism of action of the warming compress?

Answer: Prolonged expansion of skin and deep-lying blood vessels, rush of blood to this place, resorption of the process and reduction of pain.

2.List the contraindications for applying compresses. Answer:

Skin disease.

3. What layers does a warming compress consist of?

Answer: 1. A piece of clean, dense, but hygroscopic cloth, dipped in liquid and well wrung out.

- 2. Oilcloth or wax paper.
- 3. Cotton wool, and each subsequent layer should be 2 cm wider than the previous one.
- 4. How long does the warming compress last?

Answer: No more than 12 hours.

Warmer.

1. What is the purpose of the heating pad?

Answer: 1. For resorption of the inflammatory process.

- 2. For warming the body.
- **3.** Jacques pain reliever.
- 2. Contraindications to the appointment of a heating pad.

Answer: 1. Acute inflammatory processes in the abdominal cavity.

- 2. Tumors.
- 3. Bleeding
- 4. Bruises on the first day.
- **3.** What kind of heating pads do you know?

Answer: 1. Rubber. 2. Electrical 3. Chemical.

4. How to apply a rubber heating pad?

Answer: 1. Pour the heating pad to 3/4 of its capacity.

- 2. Release the air by pressing the heating pad.
- 3. Tighten the plug well.
- 4. Tilt the heating pad with the plug down, check the tightness.
- 5. Wrap the heating pad in a towel and put it to the patient

Ice pack.

1. Indications for use.

Answer: 1. Acute inflammatory processes in the abdominal cavity.

- 2. Bleeding.
- **3.** Bruises (on the first day).
- 4. Heat.
- **2.** How long can the ice pack be kept?

Answer: You can keep it for a day, but every 20-30 minutes it is removed for 10-15 minutes.

HYDROTHERAPY

Hydrotherapy (*hydrotherapy*) - the use of water for medicinal and prophylactic purposes. In hydrotherapy, along with the temperature factor, the mechanical factor is also important - the pressure of the water, its movement.

Baths

Baths - water procedures used with hygienic, therapeutic and prophylactic purpose. Baths are common, when the whole body is immersed in water, and places dy - when a part of the body is immersed. There are also half-baths - water covers the lower part of the body to the waist; sitz baths - water covers the pelvic area, lower abdomen, and upper thighs.

Bath preparation. The bath is filled immediately before taking it to avoid cooling. The amount of water is determined by the size of the bath, the volume of the person's body and the degree of immersion desired.

A mixer is used to fill the bathtub with water. If it is not there, then in order to avoid the accumulation of steam in the bathroom, first pour cold and then hot water. Using a water thermometer (without removing it from the water), the temperature of the water is determined. When immersed in the bath, a towel is placed under the patient's head, and a support is placed under the patient's legs (to prevent the body from sliding to the foot end of the bath and to prevent muscle tension and maintain the desired position).

Remember! During the procedure, it is necessary to monitor the patient's condition, if he turns pale, dizziness, chills, a sharp increase in pulse and breathing appear, it is necessary to stop the procedure and call a doctor.

Baths differ in temperature as follows: cold - 24-27 $^{\circ}$ C, cool - 28-33 $^{\circ}$ C, indifferent (without feeling warm and cold) - 34-36 $^{\circ}$ C, warm - 37-39 $^{\circ}$ C, hot - 40 $^{\circ}$ C and above.

Indifferent and warm baths prescribed for neuroses with increased excitability (neurasthenia, insomnia), skin diseases, accompanied by itching.

Hot baths used for chronic diseases of the joints, diseases of the peripheral nerves (radiculitis, polyneuritis), metabolic disorders (obesity, dagra), attacks of renal colic.

Cool baths used for neuroses with depression, apathy, poor appetite.

Duration of baths: indifferent and warm - 10-15 minutes, cool and hot - 3-5 minutes. At the end of the bath, the patient is wiped off with a terry towel, then rest for about 30 minutes is required. Bath time - indifferent and warm by the end of the day, an hour before bedtime; cool and hot in the middle of the day, 2 hours after lunch.

In addition to common baths, half baths are used. They are easier to tolerate and are used in debilitated patients. There are hand and foot baths. These baths are used to influence the hands, feet and adjacent joints. The technique of their implementation is very simple - the patient immerses a hand or foot in prepared water. Hand and foot baths are hot (40-42 ° C), warm (35-38 ° C) and cold (10-12 ° C). Hot and warm baths are used for chronic diseases of the small joints of the hands and feet (their duration is 20-30 minutes) in order to enhance blood circulation and absorb the effect. Cold baths are indicated for acute inflammatory processes, fresh trauma (bruise, sprain, etc.) in the area of the hands and feet. Their duration is 5-10 minutes.

Sitz baths refer to local hydrotherapy procedures. Cold (10-15 ° C) short-term sitz baths are prescribed for intestinal lethargy (atonic pores), sexual weakness, urinary incontinence; warm (37-38 ° C) sitz baths lasting 20-30 minutes - for chronic inflammatory diseases of the female genital organs, hemorrhoids, chronic inflammation of the prostate gland, hot sitz baths (40-42 ° C) lasting 10-15 minutes - for renal colic. Sitting baths are contraindicated in acute inflammatory processes, pregnancy, tendency to uterine blood

in the lectures.

Medicinal baths. Coniferous baths, due to the presence of essential oils in the pine extract, have a beneficial effect with their refreshing scent on the nervous system and upper respiratory tract. They are prescribed for neuroses with increased irritability, stage I hypertonic disease. When using coniferous extract in powder form, put 2 tablespoons per bath, liquid coniferous extract - 100 mg per bath.

For the preparation of a starch bath, starch is used at the rate of 0.5-0.8 kg per bath. The starch is diluted in a small amount of cold water, stirred thoroughly and poured into the finished bath. Prescribe starch baths for skin diseases accompanied by itching; exudative diathesis with the aim of antipruritic and drying effect. Starch baths act in an enveloping manner, reduce skin irritation. They are used at a water temperature of 36-37 ° C, for a duration of 30-40-60 minutes. After the bath, the body is dried with a soft towel or sheet.

To prepare a bath with potassium permanganate, a 5% solution of potassium permanganate is added to a bath filled with water at a temperature of up to 36-38 ° C (until a pink color appears). The duration of the procedure is 5-10-15 minutes, after which the patient is poured with warm water. These baths are used mainly for skin diseases, accompanied by pustular lesions with weeping elements, for the purpose of disinfecting and drying.

Souls.

Shower - one of the most effective methods of hydrotherapy. Souls are distinguished by temperature:

- indifferent -32-34 ° C,
- warm 35-37 ° C,
- cool 24-31 ° C,
- cold below 24 ° C.

Souls are prescribed under the following conditions:

- I) neuroses with increased excitability indifferent and warm souls, 3-5 minutes;
- 2) neuroses with a depressed state of the nervous system (apathy, general weakness) cool, 2-3 minutes:
- 3) metabolic disorders (obesity) cool and cold, 3-5 minutes.

To harden the body, showers are used with a gradual decrease in temperature from 34 to 20 ° C.

Control questions

- 1. List the indications and contraindications for setting mustard plasters, cans, leeches.
- **2.** How to put mustard plasters correctly? List the possible complications.
- 3. What is the technique for setting the cans? List the possible complications when placing cans.
- **4.** On which parts of the body can leeches be placed?
- **5.** What is the technique for setting leeches? List the possible complications when using leeches.
- **6.** What is the patient's skin care after removing leeches?
- **7.** Indications and contraindications for applying compresses.

What accessories are needed for applying compresses?

- **8.** What is the technique of applying compresses?
- **9.** In what cases are heating pads used and what is their device?
- **10.** How to use heating pads correctly in patients?
- 11. How should an ice pack be given to a patient and when is it used?
- 12. What is the method of conducting baths (hand, foot, sit-down, half-bath)?

Tests-assignments to control the final level of knowledge

1. What measures can be taken to influence blood circulation?

Answer: Banks, mustard plasters, compresses, ice pack, hydrotherapy

2. What accessories are needed for setting cans?

Answer: A box for storing jars, which also contains alcohol, petroleum jelly, cotton wool.

3. How should you put mustard plasters?

Answer: 1. Check mustard plasters before use.

- 2. Moisten them in warm water (35 $^{\circ}$) and quickly apply to the desired area of the skin, hold until a burning sensation.
- 3. Having removed the mustard plaster, the skin is quickly wiped dry and the patient is warmly covered.
- 4. Mustard plasters are contraindicated for skin diseases and bleeding.
- **4.** What is the technology for setting cans?

Answer: 1.Put from 10 to 30 pieces in the patient's lying position.

- 2. Cotton wool is wound on a metal rod and moistened with alcohol.
- 3. The jar is kept close to the body, a burning tampon is quickly introduced into it, and then instantly applied to the patient's skin.
 - 4. The duration of the procedure is 10-15 minutes.
 - 5. To remove cans: tilt the can to the side, and press the skin with the fingers of the other hand;
 - 6. Contraindications: pulmonary bleeding, tuberculosis, tumors, etc.
- **5.** Types of compresses?

Answer: Warming (for resorption of the inflammatory focus and pain relief), cold (for bruises, injuries, bleeding). poultices (with local inflammatory processes in order to eliminate them as quickly as possible).

6. What is the technology of applying compresses.

Answer: warming 1. Initially, a bandage is prepared from three layers of gauze, moistened in a solution of vinegar with water and a 20 ° alcohol solution.

- 2. Then it is gently applied to the area of the body, bandaged. Compress lasts 6-8 hours, but no more than 12 hours.
- 3. Contraindications: dermatitis, pyoderma, furunculosis.
- **7.** On which parts of the body can leeches be placed?

Answer: The occipital region of the head, the sacral region, the region of the heart, the right hypochondrium, the posterior surface of the legs.

8. What is the technology for setting leeches?

Answer: 1. The position of the patient is lying.

- 2. Shave the skin over the place where the leeches are applied and wipe dry.
- 3. The leech is grasped with tweezers and placed in a test tube with the tail end down.
- 4. Then they put the test tube to the right place and wait for the leech to suck.
- 5. The tube is then removed.
- 6. The leech usually lasts 30-60 minutes and then disappears.
- 7. After removing the leeches, apply a sterile napkin.
- 8. Contraindications: blood clotting disorder, skin diseases, anemia.
- 9. What are the complications after placing leeches?

Answer: Itching of the skin, bleeding, suppuration.

10. What is the device of the heating pad? How to apply a heating pad correctly?

Answer: Rubber reservoir with a capacity of 1-1.5 liters with a well-screwed cap. Fill 3/4 of the volume with hot water. The hot water bottle is wrapped in a towel and served.

11. What is the technique for using an ice pack?

Answer: The ice pack is placed on the appropriate area in a towel folded in four, and sometimes it is hung if the load causes pain in the patient.

12. What is the use of a bath?

Answer: The usefulness of the bath is provided by the action of several factors: temperature, mechanical, chemical.

13. What are the contraindications for using the bath?

Answer: Severe general condition, fever, heart failure.

14. Types of healing baths?

Answer: Cold (below 20 ° C),

cool (up to 30 ° C), warm (up to

40 ° C), hot (above 40 ° C),

indifferent (34-36 ° C).

Questions to control the final level of knowledge

- **1.** Types of hydrotherapy (hydrotherapy).
- 2. Baths technique (hand, foot, seated, half-bath).
- **3.** Contraindications to hydrotherapy.
- **4.** Types of compresses. Compressing technique.
- **5.** The technique of setting cans, complications when setting cans.
- **6.** The use of leeches. List the possible complications when using leeches.
- 7. When using lotions and poultices.

Final control: carried out through a spot check of practical skills.

TEST CONTROL

- **1.**How often should a wet cold compress need to be changed? a) after 2-3 minutes; b) as soon as it dries; c) after 10-15 minutes.
- 2. When is an ice pack used?
 - a) internal bleeding;
 - b) severe headaches and delirium at the height of the fever
 - c) renal colic;
 - d) acute cholecystitis or acute pancreatitis;
 - e) for resorption of post-injection infiltrates.
- **3.** How to check if the moist warming compress is applied correctly? a) after 1-2 hours, remove the compress and check its condition;
 - b) after 1-2 hours put your finger under the compress and determine the state of its inner layer;
 - c) after 1-2 hours ask about the patient's subjective feelings.
- **4.** What are the contraindications for using heating pads on the abdomen?
 - a) pain during exacerbation of peptic ulcer disease;
 - b) intestinal colic;
 - c) internal bleeding;
 - d) suspicion of an acute surgical disease of the abdominal organs.
- **5.** In what cases are mustard plasters used? a) acute colds; b) skin diseases; c) immediately after injury; d) an attack of angina pectoris; e) myositis, radiculitis, neuralgia.

- **6.** What is the exposure of cans on the patient's body?
 - a) 5-10 minutes:
 - b) set individually;
 - c) determined by a change in the color of the skin under the banks.
- 7. What are the contraindications for setting cans?
 - a) acute pneumonia;
 - b) active form of pulmonary tuberculosis;
 - c) pulmonary hemorrhage;
 - d) skin diseases;
 - e) malignant neoplasms;
 - f) myositis.
- **8.** What are the indications for phlebotomy?
 - a) venous congestion in the large or small circle of blood circulation;
 - b) in some cases of arterial hypertension;
 - c) polycythemia;
 - d) disorders of the blood coagulation system;
 - e) pronounced atherosclerosis of the vessels of the brain.
- **9.** What is the therapeutic effect of hirudotherapy connected with? a) local hemorrhage; b) decrease in blood clotting; c) analgesic effect;
 - d) resorption of inflammatory infiltrates.
- 10. On which parts of the body can leeches be placed?
 - a) behind the ears, mastoid processes; b) on the interscapular region; c) on the lumbar region;
 - d) on the left half of the chest; e) on the area of the right hypochondrium.
- 11. What effect do short cold baths have on the body? a) stimulating effect on the central nervous system; b) a calming effect on the central nervous system; c) spasm of smooth muscles of internal organs; d) expansion of the smooth muscles of the internal organs; e) stimulation of metabolism.
- 12. What effect do short hot baths have on the body? a) stimulating effect on the central nervous system; b) a calming effect on the central nervous system; c) spasm of smooth muscles of internal organs; d) expansion of smooth muscles;
 - e) increased heat transfer f) stimulation of metabolism.
- TOPIC 8. METHODS OF APPLICATION OF MEDICINAL PRODUCTS, ENTERAL AND EXTERNAL METHODS OF ADMINISTRATION

 MEDICINAL PRODUCTS. INJECTION.

Educational purpose: observance of ethics and deontology in the distribution of drugs, the responsibility of medical personnel for the storage of drugs in the list "A" and "B".

Equipment of the lesson: cotton wool, bandage, waxed paper, iodine tincture, ointments, plaster, eye drops, pipettes, spatula, powders, tablets, glass for mixtures, sterilizer, syringes, needles, tweezers, disinfectant solution, systems, dummies, phantoms.

The student should know:

- 1. Storage of preparations of lists "A" and "B", means for external use.
- 2. Methods for administering medicinal substances.
- **3.** Organization of distribution of powders, capsules, solutions, mixtures, drops. Taking medicine by patients in the presence of a nurse.
- **4.** The use of external agents, rubbing in ointments, lubricating the skin with iodine tincture, the use of plasters, powders. Instillation of drops in the ears, nose, eyes.
- **5.** Organization of the work of the treatment room.

The student should be able to:

- 1. Lay out and distribute medicine for internal use; lay out the medicine according to an individual scheme.
- **2.** Apply ointments, lubricate the skin with iodine tincture, apply plasters, powders. To drip drops into ears, eyes, nose.

Plan and organizational structure of the lesson.

- 1. Greetings.
- 2. The role of student attendance.
- **3.** Introductory remarks by the teacher. Target setting.
- **4.** Home assignment.
- **5.** Control and correction of the initial level of knowledge:
- **1.** Classification of medicinal products:
 - Solid dosage forms (tablets, capsules, powders ...)
 - Soft (candles, ointments, etc.)
 - Liquid (solutions, tinctures, decoctions, etc.)
 - Gaseous (aerosols)
- **2.** Methods of drug administration (externally, internally, parenterally)
- **3.** Discharge rules and organization of drug distribution in the department.
- **4.** Responsibility of medical personnel for the storage of drugs of lists "A" and "B", means for external use.
- **6.** Forms of drugs used externally (ointment, liniment, talkers, aerosol, liquid)
- 7. The use of external agents, rubbing in ointments, lubricating the skin with iodine tincture, the use of plasters, powders, inhalation of aerosols. Instilling drops in the ears, nose, eyes.
- **8.** What are the forms of medicines used internally (infusion, decoctions, tablets, pills, mixture, powders, syrup)
- **9.** Technology of enteral administration of medicines.
- **10.** What are the known dosage forms used for parenteral administration.
- **11.** Processing stages:
 - 1. Disinfection

- **2.** Pre-sterilization cleaning followed by mandatory quality control of cleaning.
- 3. Sterilization.
- **12.** Pre-sterilization preparation of syringes, needles.
- 13. Sterilization methods for medical instruments:
 - Dry heat sterilization;
 - in a steam sterilizer;
 - gamma rays;
 - boiling; gas; burning.
- 14. Quality control of syringes and needles processing.

Technique for performing benzidine and orthodontic tests (to reveal hidden blood on instruments). Technique for performing phenolphthalein test (to identify contamination residues on instruments).

- **6.** Organization of the work of the treatment room.
- **7.** Acquaintance with the storage of medicines in the department.
- **8.** Demonstration of practical skills in pre-sterilization processing of instruments.
- **9.** Independent work of students in the department.
- **10.** Discussion of the results of independent work.

eleven. Control and correction of the final level of mastering the educational material.

1. ASEPTICS AND ANTISEPTICS.

ASEPTICS - This is a system of preventive measures aimed at preventing microorganisms from getting into the wound, tissues, organs, body cavity of the patient during surgery, dressings and other medical and diagnostic procedures.

Asepsis includes; a) sterilization of instruments, material; b)

processing the hands of the surgeon and the nurse.

c) compliance with the rules and techniques during the operation, research, etc.

ANTISEPTICS - a set of therapeutic and prophylactic measures aimed at destroying microbes in a wound or in the human body as a whole. Distinguish: a) mechanical,

- b) physical:
- c) chemical,
- d) biological,
- e) mixed.

Mechanical - surgical treatment of the wound. Physical - the use of hygroscopic dressings, physiotherapy treatment.

Chemical - the use of antiseptic and chemotherapy drugs. Biological - the use of all kinds of serums, blood preparations, active immunization agents, etc., which affect the microbial cell and its toxins. Mixed - the use of several types of antiseptics, is the most widespread.

2. DISINFECTION. ITS TYPES AND MEANS.

Disinfection - this is a set of measures aimed at the destruction of pathogenic and opportunistic microorganisms in the environment. There are two types of disinfection: focal and prophylactic.

Preventive carried out in order to prevent the spread of infectious diseases

illnesses in medical institutions (timely cleaning of premises, boiling, etc.).

Focal disinfection subdivided into final (after removal of the source of the pathogen) and current (in the presence of a patient; for the purpose of immediate destruction of the pathogen)

During disinfection, physical and chemical means of disinfection are used. Physical means: mechanical cleaning, wet cleaning, washing, shaking out, airing. Thermal and radiant means: the use of high and low temperatures, irradiation with bactericidal rays with ultrasound.

3. STERILIZATION AND ITS METHODS.

Sterilization it is the destruction of all pathogenic and non-pathogenic microorganisms using physical and chemical means.

Sterilization is carried out by steam, air and chemical methods, as well as by ionizing radiation and other methods!

4. SANITARY-ANTI-EPIDEMIC REGIME

Sanitary and anti-epidemic regime - a whole range of organizational sanitary and anti-epidemic measures aimed at preventing the occurrence of intrahospital infection.

Requirements for the sanitary and anti-epidemic regime are regulated by the following orders:

- 1. Ministry of Health of the USSR No. 720. "On improvements in medical care for patients with purulent surgical diseases and strengthening measures to combat nosocomial infection"
- 2. Ministry of Health of the USSR No. 408. "To reduce the incidence of viral hepatitis."
- 3. OST 42-21-2-85. "Sterilization and disinfection of medical devices"

5. MEDICAL DEVICES SUBJECT TO DISINFECTION. DISINFECTION METHODS.

Honey. products that do not have contact with the wound surface, blood, infectious drugs are subject only to disinfection, then rinsed twice. Instrumentation contaminated with blood is also disinfected before pre-sterilization cleaning and sterilization.

Disinfection methods:

- I. Boiling.
- a) boiling in water for 30 minutes:
- 6) boiling in 20% solution of baking soda (distilled water with sodium bicarbonate) exposure 15 minutes.
- II. Chemical
- a) soaking in a triple solution, exposure 15 minutes. Recommended for glass products, corrosion-resistant metal.
- b) soaking in 3% solution of chloramine for tuberculosis 5%, [exposure 4 hours], exposure 60 minutes.
- c) soaking in 4% solution of hydrogen peroxide [for tuberculosis 3% H2O2 3 hours, exposure 90 minutes.
- d) soaking in 0.1% solution of Deoxon-1, Exposure 30 minutes e) soaking
- in 1.5% solution of Ca hypochlorite, Exposure 60 minutes.

This is followed by rinsing with running water and pre-disinfection cleaning. Disinfection of disposable honey, instrumentation is carried out by immersion in disin.

Solution.

a) 5% solution of chloramine, exposure 30 minutes b) solution "A-33", exposure 10 minutes.

Before immersion, the products are disassembled or cut and completely immersed in disinfection. rr

(OST 42-21-2-85) (Project No. 4089 MH USSR}

PRE-STERILIZATION CLEANING OF MEDICAL DEVICES

- 1) Rinsing with running water for 0.5 minutes.
- 2) Soaking in a washing complex with complete immersion of products 15 min.
- 3) Washing each product with a brush, cotton-gauze swab or brush in a washing complex 0.5 min.
- 4) Rinsing with running water: when using "Biolot" 3 minutes, when using "Progress" 5 minutes, when using "Astra", "Aina", "Lotus" 10 minutes.
- 5) Rinsing with distilled water 0.5 min.
- 6) Drying with hot air at a temperature of 80-85% until the moisture completely disappears.
- 7) All honey should be subjected to pre-sterilization cleaning. products before sterilization in order to remove protein, fat, mechanical contamination, as well as drugs. Detachable products must be cleaned before sterilization when disassembled.

7 PREPARATION OF THE CLEANING SOLUTION.

(OST 42-21-2-85)

/ I KLI AKATION OF THE CELANING SOLUT	1011.
1) Perhydrol solution 2 7.5%	17 ml.
Detergent "Lotus". "Progress", "Aina". "Astra"	5g
Casting water	978 ml.
or	
Perhydrol solution 33%	15 ml.
Detergent "Lotus", "Progress", "Aina". "Aster"	5g
Drinking water	980 ml.
2) A solution of hydrogen peroxide 6%	80 ml.
Detergent "Lotus", "Progress", "Aina", "Astra"5g	
Drinking water	915ml
or	

Detergent "Lotus". "Progress", "Aina", "Astra"

The cleaning solution can be used within 24 hours from the moment of preparation, if the color of the solution has not changed. Unchanged solution can be heated up to 6 times. The temperature of the washing complex when the instruments are immersed in it is 50-55 ° C. the temperature is not maintained during washing.

3) 0.5% solution "Biolot"

Detergent "Biolot" 5g
Drinking water 995ml

The washing complex is used once. The temperature of the solution when the instruments are immersed in it is 45-50 ° C. the temperature is not maintained during washing.

(OST 42.21-2-85)

8. PRIMARY TREATMENT OF HONEY. INSTRUMENTATION IN THE PROCEDURE ROOM

- 1) .NO RINSING. Disinfection by one of the methods:
- a) immersion in 3% solution of chloramine for 60 minutes.

- b) immersion in 6% hydrogen peroxide solution for 60 minutes; c) immersion in 0.1% solution of "Deoxon-1" for 30 minutes, d) immersion in 1.5% solution of Ca hypochlorite for 60 minutes.
- 2) Rinsing under running water for 0.5 min.
- 3) Immersion in 1.5% alkaline solution at 50 $^{\circ}$ for 15 minutes. The temperature during washing is not maintained. The solution is used once.
- 4) Rinsing under running water for 0.5 min.

Further processing of syringes and needles is carried out in the central security center (presterilization cleaning and sterilization).

(OST 42-21-2-85) (Project No. 408 of the USSR Ministry of Health)

9. PREPARATION OF ALKALINE SOLUTIONS FOR PRIMARY TREATMENT OF HONEY. TOOLKIT.

1) 1.5% alkaline solution	
Detergent "Lotus"	15g
Drinking water	985 ml.
2) 2% soda solution	
Soda	
	20g
Drinking water	980 ml
3) 3% soda solution	
Soda	ZO g
Drinking water	970 ml

10. PRIMARY PURIFICATION OF HONEY. TOOLKIT

B washing CSO produce thorough mechanical cleaning of syringes and needles from drug residues and blood.

- I) Immersion in washing solution for 15 minutes. The temperature at the time of immersion of the instruments is $50\,^\circ$ C. It is necessary to draw a washing solution into each needle with a specially dedicated syringe to completely displace air from the needle channel.
- 2) Washing in a washing solution using cotton swabs (30 sec. For each syringe).
- 3) Rinsing under running water (25 sec. For each syringe). Temperature 50-60 ° C.
- 4) Rinsing or boiling in distilled water for 5 minutes. for the purpose of demineralization. Change of water is carried out after boiling 200 syringes.
- 5) Drying in an air sterilizer with hot air at a temperature of 80-85 ° C until the moisture disappears completely.

(OST 42-21-2-85)

11. WHEN MEDICAL DEVICES ARE SUBJECT TO STERILIZATION. All medical devices that come into contact with

the wound surface, in contact with blood or injectable preparations, and certain types of instruments that, during operation, come into contact with the mucous membrane and can cause its damage.

12. STERILIZATION METHODS. STERILIZATION MODES. 1)

Steam method (water, saturated steam, overpressure).

Sterilization mode:

- a) steam pressure 2 atm., holding time 20 min, temperature 132 $^{\circ}$ C, control test urea, recommended for products made of corrosion-resistant material ala, textile materials (linen, syringes, tools, etc.).
- b) steam pressure 1.1 atm., holding time 45 minutes, temperature 120 ° C, control test benzoic acid; recommended for rubber, plastic, etc. (gloves, catheters).

Sterilization is carried out in sterile boxes or double soft packaging made of coarse linen, parchment.

The term for maintaining sterility in such a package is 3 days. In sterilization boxes with a filter - 20 days (instruments and materials are placed in sterilization boxes only in double soft packaging made of coarse calico or in parchment).

The sterility of the product in the bix or package is preserved from the moment of opening only within 24 hours (be sure to indicate the date of opening the bix).

- 2) Air method (dry, hot air). Sterilization mode:
- a) temperature 180 ° C, holding time 60 min., control test thiourea, succinic acid, tartaric acid. Recommended for glass, metal, silicone rubber.
- b) temperature 160 ° C, holding time 150 min, control test sucrose.

Dry products are sterilized.

Sterilization is carried out in paper packaging or without packaging in an open form). The shelf life of the sterility of the product in the package is 3 days, without the package - should be used immediately after sterilization.

3) Chemical method (using chemical agents) a) Sterilizing agent hydrogen peroxide 6% Immersion in solution at a temperature of $18 \,^{\circ}$ C - for $360 \, \text{min}$, $50 \,^{\circ}$ C for $180 \, \text{min}$

A solution of hydrogen peroxide can be used within 24 hours from the moment of preparation, provided it is stored in a closed container in a dark place.

The temperature of the solution during the sterilization process is not maintained b) Sterilizing agent - 1% solution "Deoxon-1". Holding time - 360 min., Temperature not less than 20 C.

Sterilization with solutions of chemical preparations can be used for products made of polymer materials, rubber, glass, corrosion-resistant metal.

Sterilization is carried out when the products are completely immersed in the solution during sterilization, after which the product is rinsed with sterile water.

The shelf life of a sterilized product in a sterilized box lined with a sterile sheet is 3 days.

(OST 42-21-2-85)

13. CHEMICAL CLEANING OF STAINLESS STEEL SURGICAL INSTRUMENTS.

Instruments in the process of use, pre-sterilization cleaning, sterilization can corrode. Tools with visible spots of corrosion, as well as with the presence of an oxide film, are chemically cleaned no more than 1-2 times a quarter.

- 1) Pre-rinsing with running water 0.5 min.
- 2) Soaking in solution:

acetic acid	5d.
chloride Na	
	1d.
	up to
distilled water	100
Temperature 20 ° C	

3) Holding time:

stainless steel scalpels - 2 min.

instruments with the presence of an oxide film - 3 min.

instruments with severe corrosion damage - 6 min. (additionally clean the lesion site with a brush or cotton-gauze swab - 6 min.)

(OST 42-21'2-85)

14. QUALITY CONTROL OF PRE-STEERING PURIFICATION OF HONEY. PRODUCTS USING THE "AZOPYRAM" AND "PHENOLPHTHALEIN" REAGENTS "AZOPYRAMIC SAMPLE".

I. "AZOPYRAMIC SAMPLE".

1 liter of reagent Azopiram contains 100 g of amidopyrine and 1.0-1.5 g of aniline hydrochloric acid, 96 $^{\circ}$ ethyl alcohol up to 1 liter. The finished solution can be stored in a tightly closed bottle in the dark at +4 C (in the refrigerator) for 2 months, in the dark at room temperature (about 18- + 23'C) - no more than 1 month.

Before the study, a working solution is obtained: mixing equal volumes of Azopiram and an oxidizing agent (hydrogen peroxide solution 3%). The working solution should be used within 1-2 hours.

The working solution is used to treat the test items, wipe them with tampons soaked in reagent or apply a few drops of the reagent to the test items using a pipette.

B syringes drink 3-4 drops of a working solution and move the piston several times in order to moisten the inner surface of the syringe with the reagent, leave the reagent in the syringe for 0.5-1.0 minutes, after which the reagent is pushed onto a gauze napkin.

The quality of catheter cleaning for other hollow articles is assessed by introducing the reagent into the articles using a clean syringe or pipette.

The reagent is left inside the product for 0.5-1.0 minutes, after which it is poured onto a gauze napkin.

Control is subjected to 1% of simultaneously processed products of the same name. niva, but not less than 3 - 5 units.

B the presence of traces of blood immediately or no later than 1 minute after contact of the reagent with the contaminated area, a pink-lilac or brownish coloration appears. Staining that occurs later than one minute after processing the test items is not taken into account.

If there are positive samples, all instruments are re-processed.

II. PHENOLPHTHALEIN SAMPLE

The test items are treated with the working solution: they are wiped with tampons moistened with the reagent or a few drops of the reagent are applied to the test items using a pipette.

B syringes pour 3-4 drops of the working solution and move the piston several times in order to moisten the inner surface of the syringe with the reagent, leave the reagent in the syringe for 0.5-1.0 minutes, after which the reagent is pushed onto a gauze napkin.

The cleaning quality of catheters or other hollow articles is assessed by introducing the reactive into the articles using a clean syringe or pipette.

The reagent is left inside the product for 0.5-1.0 minutes, after which it is poured onto a gauze napkin.

The cleaning quality of catheters or other hollow articles is assessed by introducing a reagent into the articles using a clean syringe or pipette.

The reagent is left inside the product for 0.5-1.0 minutes, after which it is poured onto a gauze napkin.

Control is subjected to 1% of simultaneously processed products of the same name. niva, but not less than 3 - 5 units.

B presence of traces of alkali immediately or no later than 1 minute after contact of the reagent with the contaminated area. a pink color appears.

If there are positive samples, all instruments are re-processed.

(Pr. No. 720 of the USSR Ministry of Health)

15. VALUE AND BASIC TASKS OF CSO.

- 1) Prevention of parenteral infections with viral hepatitis, malaria, syphilis and other diseases, as well as post-injection infections
- 2) Ensuring complete cleaning, sterilization, maintaining the sterility of syringes, needles, surgical drapes, etc.

3) CSO improves the culture and quality of medical care, frees up additional time for service personnel, and reduces the fight of syringes.

(OST 42-2 1-2-85)

16. DOCUMENTATION IN CSO.

- 1) Sterilizer operation log (steam or air).
- 2) Journal of bacteriological control of sterility.
- 3) Cassette sterilization mode log.
- 4) The magazine for receiving and issuing cassettes.

(Pr. No. 408 of the USSR Ministry of Health)

17. MULTIPLE SET OF MATERIAL ON STERILITY, ITS VOLUME. Bacteriological laboratories of health care facilities control the sanitary and hygienic

the regime (contamination of various objects and air) once a month, and linen, the hands of surgeons and the skin of the operating field (selectively) is performed once a week.

The objects of research during bacteriological control are; air, various objects of the external environment, surgical instruments, syringes, needles, blood transfusion systems, rubber and plastic products, surgical suture material, the hands of surgeons and the skin of the operating field.

(Pr. No. 720 of the USSR Ministry of Health)

18 SPATULA DISINFECTION

- 1 Metal spatulas boil:
 - -2% soda solution 15 min.
 - -Distilled water -30 min.
- 2 III wooden burners are destroyed after use (burned in a specially designated container).

19. DISINFECTION OF MEDICAL THERMOMETERS

Full immersion in the solution followed by rinsing in water. For this purpose, use:

- a) chloramine B (1% solution) 30 min.
- b) hydrogen peroxide (3% solution) 80 min
- c) triple (solution) 45 min.

Store in a dry place.

20. DISINFECTION OF ADHESIVES ON SIDING TABLES, SURVEY CUCHES, BEDS, ELECTRONIC APRONS

- 2-fold wiping with a rag with an interval of 10-15 minutes, soaked in solution:
- a) chloramine B 1% solution
- b) chloramine B 0.75% solution with 0.5% detergent
- c) hydrogen peroxide 3% solution with 0.5% detergent or soaking in 1% solution of chloramine for 30 minutes

21. DISINFECTION OF ADHESIVES IN THE DRESSING, OPERATING ROOM, CONTAMINATED WITH BLOOD.

- 2-fold wiping with a rag with an interval of 10-15 minutes, soaked in 3% solution of chloramine or soaking in 3% solution of chloramine for 1 hour
- 22. DISINFECTION OF NAIL SHEARS. SHAVING APPLIANCES. 1 Boiling in distilled water 30 min
- 2 Immersion in the throne solution for -45 min followed by rinsing in water. Store in a dry place.
- 3 Immersion in 6% hydrogen peroxide solution for 60 min.

23. DISINFECTION OF TIPS FOR ELEMENTS.

After use, without rinsing:

- 1, Immersion in 3% solution of chloramine for 60 minutes
- 2 Rinsing under running water with a cotton-gauze swab.
- 3. Boiling in distilled water for 30 minutes or in 2% soda solution for 15 minutes
- 4 Drain the water, store in the same container and dry.

24. DISINFECTION OF HAIR CLIPPER.

- 1. Immersion in ethyl 70 ° alcohol for 15 min.
- 2. Immersion in triple solution for 45 min
- 3. Immersion in 6% hydrogen peroxide solution for 60 minutes.

25. DISINFECTION OF RUBBER HEATERS, BUBBLES FOR ICE.

2-fold wiping with a rag with an interval of 10-15 minutes, soaked in solution: a) chloramine B 1% solution b) chloramine B 0.75% solution with 0.5% detergent.

26 DISINFECTING RUBBER MATS IN THE BATHROOM

- 1. chloramine B 0.75% with 0.5% detergent for 30 min immersion
- 2. hydrogen peroxide 3%, detergent solution for 30 min immersion.

27. DISINFECTION OF LINING SHIPS, URINAL RECEIVERS

Immersion in 1% solution of chloramine for 120 min.

28. DISINFECTION OF BATHS, SINKS, ETC.

- 1 Chloramine B 1% solution.
- 2. Chloramine B 0.75% solution with 0.5% detergent.
- 3. Hydrogen peroxide 3% solution with 0.5% detergent.
- 4. Detergent-de-infection means "Sanita", "Shine" 0.5 g per 100 cm2 of surface. Wipe with a damp cloth, 2-kratio with an interval of 10-15 minutes.

29. DISINFECTION OF BASINS FOR USED BANDING MATERIAL-LA.

Washed in disinfectant solution:

- 1. Chloramine B 0.75% with 0.5% detergent.
- 2. Chloramine 3% solution or 1.5% solution DSC HA (if contaminated with blood)

30. DISINFECTION OF ROOMS, FURNITURE OBJECTS.

2 times wiping with a cloth soaked in solution:

- 1. Chloramine B 1% solution
- 2. Chloramine B 0.75% solution with 0.5% detergent.
- 3. Hydrogen peroxide 3% solution with 0.5% detergent
- 4. Hypochlorite Ca O, 5% solution.

31 DISINFECTION OF THE CLEANING

MATERIAL Immerse in the solution, then rinse and dry

- 1. Chloramine B 1% solution -60 min.
- 2 Ca hypochlorite 0.5% solution -60 min.

32 DISINFECTION OF Slippers

- 1. Rubbing with a swab moistened with formalin solution 25% or 45% about vinegar solution until the inside is completely moistened.
- 2) Packing in a polyethylene bag for 3 hours.

3) Ventilate - 10-12 hours until the smell of solution disappears completely.

33. BEDDING AND BED LINEN CHANGE RATES.

Underwear and bed linen are changed at least once every 7 days (after a hyenic wash, as well as in case of contamination.

34. PROCEDURE FOR COLLECTING CLOTHED AND BED LINEN

- 1) Collected in cotton bags or containers with roofs
- 2) After changing the linen, they wipe the objects and the floor in the ward des. By means of chloramine B
- 1% solution or Ca hypochlorite 0.5% solution)
- 3) Sorting and dismantling of dirty linen is carried out in a specially allocated room on an oilcloth with a label "for dirty linen".
- 4) Sorting of linen is carried out in special clothing (dressing gown; cap, bhili, mask, glued-chat apron, gloves).
- 5) The room should have clean rags, a container for clean rags, a container for processing a chest, oilcloths, aprons, a container for clean gloves, a container for dirty gloves, individual cleaning equipment, a container with disinfectant. solution for processing and cleaning the premises (chloramine B 1% solution, Ca hydrochloride 0.5% solution).

35. DISINFECTION MEASURES BEFORE ADMISSION THE SICK IN THE WAY.

- I. The bed, bedside tables, stands for the bed vessel of the prodkladny ship, are wiped with a rag moistened with disinfectant. solution.
- 2 The bed is covered with bedding that has undergone chamber treatment
- 3. The patient is given individual care items, which, after use, are immediately removed from the ward and washed thoroughly.
- 4. After the patient is discharged, personal care items are decontaminated

36. BEDDING DISINFECTION

AFTER VOLNOY'S DISCHARGE.

Disinfection in des. the chamber using the steam-formalin or steam-air method is performed after the discharge of each patient (mattress, blanket, pillow).

37. CORRECT CLEANING IN THE DEPARTMENTS OF THE SURGICAL PROFILE.

- 1.Cleaning is carried out at least 2 times a day using a wet method with soap and soda solution. Daz. we use them after changing clothes in the event of a nosocomial infection
- 2. In the wards for patients with purulent-septic diseases and after operating purulent COMPLICATIONS daily cleaning is carried out with the use of tactile disinfectants.
- 3. Cleaning of the operating unit, dressing rooms, treatment rooms and intensive care units, a receiving flask. CSO is carried out in a wet way. As des. solution is used: a.) chloramine B 3% solution. b) hypochdoride Ca 0.5% solution

38. FREQUENCY AND PROCEDURE OF GENERAL CLEANING OPERATION-NOY, DEPARTMENT. ANESTHESIOLOGY AND REANIMATION, BANDING AND PROCEDURAL.

- 1) 1 time per pedal.
- 2) Premises are preliminarily freed from items of equipment, inventory, tools, etc.
- 3) A complex consisting of 6% solution of hydrogen peroxide and 0.5% of a detergent or 1% solution of chloramine activated (with the addition of 10%

solution of ammonia).

4) After cleaning - the inclusion of ultraviolet lamps; for 2 hours.

39. SANITARY REQUIREMENTS FOR THE MAINTENANCE AND USE VANIA CLEANING INVENTORY

- 1. Marking (no. Room name measured by volume)
- 2. Separate storage of cleaning equipment for different rooms.
- 3. Disinfection in 1% solution of chloramine or 0.5% solution of Ca hypochdoride for 60 minutes after use.

40. DISINFECTION OF HAND WASHING BRUSHES. INSTRUMENTS. Boiling in 2% soda solution for 15 minutes in different containers. The brushes are kept dry form.

41 PROCESSING OF GLOVES.

- 1. Dive in 3 https://doi.org/10.1001/1
- 2. Rinsing with running water.
- 3. Immersion in the washing complex
- 4. Rinsing with running water.
- 5. Rinsing in distilled water.
- 6 Drying, sprinkling talcum powder on each pair of gloves, wrapping each glove separately in gauze, Then we put everything together in a 2-layer coarse calico and in a bix (control test benzoic acid).

For cleaning the premises in an enema room, etc. After use, soak gloves in 1% solution of chloramine for 30 minutes, then dry and sprinkle with talcum powder.

42 PROCESSING OF CATHETERS.

- 1 Immersion in 3% solution of chloramine ON THE 60 minutes
- 2 Rinsing with running water with kneading.
- 3 Immersion in the washing complex.
- 4 Rinsing with running water.
- 5. Rinsing in distilled water.
- 6. Drying with laying in a 2-layer coarse calico, then in bix (control test benzoic acid.) 43. PROCESSING VETOSHA.

- 1. Immersion in one of the solutions for 60 min. before and after use:
 - a) chloramine B 1% solution,
 - b) Ca hypochloride 0.5% solution,
- 2. Or boiling in 2% soda solution 15 min.
- 3 Or boiling in distilled water 30 min.

44. OUARTZING MODE OF OPERATING, BANDAGING И PROCEDURAL.

Every two hours, quartzing for 15 minutes. and airing - 15 min

45. PROVISION OF TIMELY DETECTION OF CARRIERS OF PATHOGENIC STAPHYLOCOCCUS AMONG HONEY. STAFF AT THE DEPARTMENT OF SURGICAL PROFILE.

- 1. Full honey, examination of newcomers to work, including a dental examination, as well as bacteriological examination of the nasopharyngeal mucosa for the presence of pathogenic staphylococcus
- 2. Head the department organizes an examination for the carrier of staphylococcus once every six months, if it is found in employees - treatment, and in the event of a nosocomial infection extraordinary examinations and examinations

46. TREATMENT OF HANDS AFTER EXAMINATION OF A PATIENT WITH A PURULENT SEPTIC DISEASE. PROCESSING OF RAS

When disinfecting hands, the drug is applied to the palmar surfaces of the hands in an amount of 5-3 ml and rubbed into the skin for 2 mln. Use

- 1. Ethyl alcohol 80°
- 2 0.5% alcohol solution of chlorhexidine at 70°
- 3. When disinfecting hands, use also chloramine 1% solution (rinsing in a basin for 2 minutes).

47. DISINFECTION MODE BY CHEMICAL TOOL-TARIA. SYRINGE, NEEDLE FOR

TUBERCULOSIS 1. Chloramine 5% solution - - soaking 240 min

- 2. Hydrogen peroxide 3% solution soaking 180 mil.
- 3. Distilled water boil 30 mil
- 4.2% soda solution boiling for 15 minutes.

Then we perform pre-sterilization treatment according to OST 42-2 I -2-85.

48 PREPARATION OF WORKING SOLUTIONS OF CHLORAMINE. SODA.

Concentration of workers	The amount of the drug		
solutions (%)	For 11	101	
0.1	1.0	10.0	
0.2	2.0	20.0	
0.3	3.0	30.0	
0.5	5.0	50.0	
one	10.0	100.0	
2	20.0	200.0	
3	30.0	300.0	
5	50.0	500.0	
10	100.0	1000.0	

49 PREPARATION OF WORKING DISASTS FROM 5% SOLUTION HYPOCHDORITA Ca.

Nee	ded	11	31	5 1	81	101
concen	tration					
on 10%	5%					
rr	rr					
0.5%	0.25%	50 ml	150 ml	250 ml	400 ml	50 ml
one%	0.5%	100ml	300 ml	500 ml	80 ml	100ml
3%	1.5%	300 ml	900 ml	1500 ml	240 ml	300ml
5° 'about	2.5%	500 ml	1500 ml	2500ml	400 ml	500 ml

50 PROCESSING OF EQUIPMENT AND IVL.

The IN and IVL devices, both new and old, are processed after each use: they are washed and disinfected in accordance with the instruction of pr. No. 720 of the USSR Ministry of Health.

- 1. The washing process includes a number of sequential stages:
- a) Preparation disassembly of the units, removal of hoses, connecting tools, valve box covers, disconnection and emptying of condensate collectors, etc.
 - b) Disinfection of connecting elements and endotracheal tubes contaminated with blood.
 - c) Rinsing under a cold stream, why a warm howl.
- d) Soaking with full immersion in washing solution for 15-20 minutes. (0.5% solution of hydrogen peroxide with 0.5% detergent solution)

- e) Washing with a cotton-gauze swab (25-30 cuts each item)
- f) Rinsing the washed parts in running water for 5-10 minutes. then rinsing with distilled water.
- g) Drying on a sterile sheet.
- 2. Disinfection of component parts immersion in one of the solutions
- a) 4%. solution of hydrogen peroxide 60 min. 6) 3% formaldehyde solution 30 min
- c) chloramine solution -60 min.
- d) 0.1% solution of deoxone-1 30 minutes.

If the tracheostomy cannulas and oropharyngeal air ducts are made of metal, then they are disinfected by boiling in distilled water for 30 minutes.

After disinfection, the products are washed sequentially in 2 portions of sterile water, then dried and stored under aseptic conditions, the hoses are suspended.

The cleaning process for the breathing circuit elements and accessories can be combined with the disinfection process in one process. For this purpose, it is necessary to use solution. containing 3% solution of hydrogen peroxide and 0.5% solution of detergent medium "Progress Lot-tos") - exposure - 30 minutes (11 of water, 100ml of overhydrol, 5r CMC).

- 3. Disinfection of component parts and individual units and blocks of IN and IVL devices during
 - a] infection with mycobacterium tuberculosis:

3% solution of hydrogen peroxide -180 min.

1% solution of deoxone-1 - 30 minutes 10% solution of formaldehyde - 60 minutes

5% solution of chloramine 4 hours

boiling in distilled water - 30 min (blocks of metal and heat-resistant plastics).

- 4. Disinfection of devices IN and IVL in assembled form, solution of formaldehyde in ethyl alcohol 90 min.
- 5. Sanitary treatment of the outer surfaces of the apparatus and additional equipment for them is wiped with a clean cloth moistened with a washing complex, then rubbed in with 1% solution of chloramine or 3% solution of hydrogen peroxide with 0.5% washing solution.
 - 51. ACTIONS IN THE APPEARANCE OF Jaundice IN A PATIENT.
 - 1. Inform your doctor or department head
- 2 Until the diagnosis is clarified by an infectious disease doctor, isolate the patient in a separate ward.
- 3. Highlight individual patient care facilities: dishes, thermometer, medical gowns. staff, a rug at the entrance to the ward., moistened with disinfection. solution, clean rags for surface treatment, containers for disinfecting dishes, vessel, urine bag.
- 4 Carry out wet cleaning of the ward and care items using des. means 3% solution of chloramine or 1.5% solution of hypochlorite Ca.
- 5. Take blood from contact patients in the ward and from the medical staff for AST and ALT (as prescribed by the doctor).
- 6. Daily thermometry, examination of the skin and mucous membranes, stool of the patient for 35 day_7s .

Disinfection of honey. instrumentation should be carried out in accordance with OST 42-2 1-2-35.

- 8. The current disinfection should be carried out in accordance with the requirement of pr. No. 916 of the USSR Ministry of Health dated 09/04/83 "Sanitary and anti-epidemic regime of infectious diseases hospitals."
- 9. After hospitalization of the patient in the infectious diseases hospital (upon confirmation of the diagnosis), it is necessary to carry out the final disinfection in the ward with 0.1% activated solution of chloramine with the obligatory processing of bedding in the desiccamera.

(Pr. No. 916 of the USSR Ministry of Health)

52. ACTIONS IN SUSPECTING ACUTE INTESTINAL DISEASE IN A PATIENT.

- 1. Isolate in a separate room.
- 2. Inform the attending physician or the head of the department.

- 3. Select individual patient care facilities: dishes, thermometer, beaker, syringes, cleaning equipment labeled "quarantine", medical gowns. personnel, vessel, urine bag, clean rags for surface treatment, containers for disinfecting dishes, rug at the entrance to the ward, moistened with disinfection. r-rum etc.
- 4. Carry out wet cleaning of the ward and care items using des. funds: 1% solution of chloramine. Disinfect the dishes after each meal \% solution of chloramine or 0.5% solution of Ca hypochlorite (for 60 million immersion).
- 5. To take samples of the patient's feces: in the daytime to take in the bacteriological laboratory. at night at the reception.
 - 6. Disinfection of medical instruments should be carried out in accordance with OST 42-21-2-85
 - 7. The current disinfection is carried out in accordance with the requirements of order No. 916 M3> USSR

from 04.09.83 "Sanitary and anti-epidemic regime of infectious diseases hospitals."

8.After hospitalization of the patient in an infectious diseases hospital (upon confirmation of the diagnosis), it is necessary to carry out a final disinfection in the ward with 1% solution of chloramine with the obligatory processing of bedding in a desiccamera.

(Pr. No. 916 of the USSR Ministry of Health)

53. PRIMARY MEASURES IN IDENTIFICATION OF A PATIENT WITH SUSPECTED FOR PLAGUE, CHOLERA, SMALLPA, HVL (HEMORRHAGIC VIRAL FEVER).

1. DO NOT LEAVE THE CHAMBER 'WITH THE DOORS CLOSED!

Inform the manager department and chapters, a doctor on suspicion of AOI (especially dangerous infections).

- 2. Request appropriate medications, honey. tools, styling with protective clothing, spy prophylaxis means (in the reception department), individual care items.
 - 3 Temporarily prohibit entry and exit from the department and clinic.
 - 4. Stop communication between departments and floors.
 - 5. Place posts at the ward where the patient is, at the entrance to the department and on the floor.
 - 6. To prohibit the circulation of patients in the department where the patient is identified.
- 7. Temporarily stop receiving and discharging patients, admitting visitors. It is forbidden to take things out of the ward, transfer case histories to the archive before the final disinfection.
- 8. In the ward, where the patient is identified, the doors and windows are closed. Ventilation holes are glued with adhesive plaster (except in the case of cholera).
 - 9. If there are two patients in the ward, they, as contact, are isolated in different wards.

(Instruction of the Ministry of Health of the USSR 1985)

54. MEASURES AND PERSONAL PREVENTION MEASURES FOR OOI.

Before receiving protective clothing, medical workers should temporarily cover their nose and mouth with a towel or mask. Before putting on protective clothing, exposed skin areas are treated:

- for plague streptomycin solution (250,000 500,000 units)
- with cholera tetracycline solution (200,000 units)
- -with GVL and smallpox a weak solution of potassium permanganate (0.5%), the eyes are washed with 1% solution of boric acid or a few drops of silver nitrate, in the nose 1% solution of protar-gol.

In the presence of immune-specific drugs - gamma globulin, serum.

(Instruction of the Ministry of Health of the USSR 1985)

63. PACKING FOR BLOOD COLLECTION FOR F. 50

- 1.bix:
- 2. syringes, disposable needles (at least 2);
- 3. clean gloves;

- 4. dry clean glass test tubes with cotton-gauze tubes;
- 5. sterile cotton swabs;
- 6. tripod;
- 7.70° ethyl alcohol;
- 8. 6% solution of hydrogen peroxide;
- 9. 1% boric acid solution,
- 10.1% solution of protargol;
- 11. adhesive plaster for container packing

64. PRECAUTIONS WHEN WORKING WITH BLOOD. 1. Honey.

personnel must be instructed before being allowed to work.

- 2. All manipulations in which contamination of the skin and mucous membranes with blood can occur
- or serum, should be carried out with rubber gloves and a mask.
 - 3. In case of contamination of the skin or mucous membranes with blood, you should immediately:
- - wash the affected areas with warm water and soap, wipe dry.
- - treat the skin with 6% solution of hydrogen peroxide or 70 ° alcohol
- - mucous eye -1% solution of boric acid.
- - nasal mucosa 1% solution of Protargol, rinse the horn with 70 "alcohol or 0.05% solution of manganese-sour potassium.
- 4. The surface of the work tables is treated with 3% solution of chloramine in case of contamination during the period of work and at the end of the working day.
 - 65. TREATMENT OF BANDAGE CONTAMINATED WITH BLOOD. It is discharged into a container with disinfectant. solution: 3% solution of chloramine 1 hour or 1.5% solution of hypochlorite

Ca -1h.

66. SANITARY AND HYGIENIC MODE IN BUFFET ROOMS

- 1. Delivery of food to patients is carried out by barmaids and bowls. honey. sisters in dressing gowns marked "for serving food."
- 2. After each distribution of food, clean the pantry and canteen in the kitchen.

armor With marking "for cleaning". Use des. solutions: 1% solution of chloramine or 0.5% solution of gkpochlorite Ca

- 3. Cleaning material (buckets, mops) should be marked "for pantry". After washing the floors, the cleaning equipment is disinfected in 1% chlorine-amine solution for 60 minutes, then rinsed in running water and dried.
- 4. Disinfect the dishes in 0.5% solution of chloramine or 0.25% solution of Ca hypochlorite or for 15 minutes. followed by rinsing with running water.
- 5 Rags for washing and wiping tables, dishes at the end of cleaning are thrown into a container marked "dirty rags" and boiled in 2% soda solution for 15 minutes. or subjected to disinfection in 0.5% solution of chloramine 60 minutes, then dried and stored in a container with a lid marked "clean rags".
- 6. The pantry staff must observe the rules of personal hygiene: before visiting the toilet, take off the dressing gown, after visiting wash and disinfect hands with 0.5% chlorine solution for 2 minutes.

(Project 720 of the USSR Ministry of Health)

67 SANITARY-HYGIENE REGIME R CHAMBERS FOR PATIENTS WITH ANAEROBIC INFECTION

The source of infection are patients with gas gangrene in any form: emphysematous, edematous toxic, mixed and gas purulent.

Causative agents of gas gangrene (C1. Perfiingens. CL. Oedomaticus, CL septicum. CL. Histolyt-

icran) belong to the genus of pathogenic Clostridia - anaerobic spore-bearing bacilli. As a rule, the association of microbes can consist of pathogenic Clostridia or in a mixture of pathogenic and low-pathogenic Clostridia. as well as from a mixture of clostridia with aerobic bacteria: staphylococcus, Escherichia coli, Proteus.

The main route of transmission is contact. Infection can occur when the causative agent of gas gangrene gets on damaged skin or mucous membranes with soil, dirty linen, clothes, as well as when using insufficiently sterilized instruments, syringes, needles, sutures and dressings.

For the treatment of patients with gas gangrene, separate chambers with a special entrance, an operating room-dressing room, equipped with a supply and exhaust ventilation that do not communicate with other departments are allocated.

The walls of the premises are tiled with tiles to a height of at least 2 meters, the floor is covered with plastic or linoleum. The surfaces of furniture, apparatus and equipment are coated with smooth, non-porous materials that are easily mechanically cleaned and disinfected.

All rooms for patients with anaerobic infection are equipped with wall-mounted or ceiling-mounted OBN-150 at the rate of I irradiator for 30 m³ of the room or OBN-ZOO at the rate of I irradiator for 60 m³ of the room.

The patient in the emergency room undergoes (if possible) full or partial sanitary treatment; takes a shower, cuts nails and d. In severe cases, the patient enters the ward without treatment.

Before admission and after the patient is discharged, the bed, bedside table, support for the bedpan (if any) are wiped with a rag, abundantly moistened with 6% hydrogen peroxide solution with 0.5% detergent. The bed is filled with bedding accessories that have undergone chamber disinfection treatment according to the mode for spore forms of bacteria

Dirty laundry before washing is disinfected by soaking and boiling in a 2% solution of soda ash (detergent) for 120 minutes from the moment of boiling

The patient is given individual care items, a cuspidor, bedpan, etc., which are washed after use. After the patient is discharged, the care items are disinfected.

For washing hands and toilet and patients use soap in small packages. After use, the dishes are freed from food debris, soaked in a 2% soda solution and boiled for 90 minutes. Then they are washed with running water and stored in a closed cabinet.

The wards are cleaned at least 2 times a day using a wet method using a 6% hydrogen peroxide solution with 0.5% detergent.

Cleaning material (buckets, basins, rags, etc. are marked and used strictly as intended. After use, autoclave at 2 kgf / cm³ (132 $^{\circ}$ C \pm 2) for 20 minutes, stored in the designated place.

The dressing room is equipped with stationary bactericidal irradiators. To reduce microbial contamination in the dressing room, it is recommended to install mobile recirculating air cleaners (VOPR-0.9 HJUI VOPR-1.5)

The surgeon, the procedural nurse put on T-shirts) shoe covers before entering the dressing room. During the operation or dressing, an oilcloth apron is put on, which, after each operation or dressing, is wiped with a rag abundantly soaked in a 6% solution of hydrogen peroxide with 0.5% detergent.

The dressing material is used once, during the operation or dressing it is collected in a specially selected bix, autoclavable at $2 \text{ kgf} / \text{cm}^3$ (132 'C ± 2) within 20 minutes and destroy.

Note: it is strictly forbidden to throw away the material without decontamination. The instruments used during the operation or dressing are collected in a container.

The operating room-dressing room is cleaned with a wet method at least 2 times a day using a 6% hydrogen peroxide solution with 0.5% detergent, using personal protective equipment: respirators of the RU-60 type and gloves After disinfection, the room is washed hot water and include bactericidal irradiators (OBN-150 or OBN-300) for 1.5-2 hours.

For conducting sessions of hyperbaric oxygenation, single baro-chambers are used, installed in a specially dedicated barosal.

For the duration of the hyperbaric oxygenation session, Bolyn is allocated an individual bedding such as a small mattress and a headrest (in order to reduce the risk of spreading infection, the cover on the bedding is changed after each session. If this requirement is not met, the bedding is sheathed with oilcloth or decay. session, change chekhoi.wipe the bedding with a lye moistened with a disinfectant solution.

Disinfection of the inner surface of the pressure chamber is carried out after each oxygenation session by wiping with a sterile rag soaked in a 6% solution of hydrogen peroxide with 0.5% detergent. Then wipe dry with a sterile diaper or simple sheets.

Haveborkubarosal is carried out at least 2 times a day using 6% hydrogen peroxide solution with 0.5% detergent. At the same time, all objects and equipment are wiped with a rag soaked in a disinfectant solution, and wiped dry. In the intervals between sessions of hyperbaric oxygenation, bactericidal irradiators are turned on

After the operation or dressing, all instruments, syringes, needles are immersed in a 6% hydrogen peroxide solution with 0.5% detergent for 60 minutes or boiled for 90 minutes.

The subsequent technique of pre-sterilization processing of instruments and its sterilization is similar to that described in sections 6-12.

(Pr. 720 MZ SSSR)

68. SANITARY AND HYGIENE REGIME IN THE DEPARTMENT PURULENT SURGERY.

- I. It is necessary to have spongy foam rubber mats or rags for disinfecting shoes when entering and leaving the department, as well as procedural, dressing, operating room, pantry, soaked in disinfection. solution (1% solution of chloramine or 0.5% solution of Ca hypochlorite).
- 2 You must have honey. dressing gowns, painted yellow, at the entrance to the department for honey. personnel of other departments, as well as at the exit from the department for medical. department staffPURULENT surgery.
- 3. Honey. the staff of the department of purulent surgery works in gowns, masks and caps, painted yellow. At the end of the work, they change the dressing gowns, masks, shapo-check.
- 4. Spontaneous movement of patients from ward to ward and exit to other departments is strictly prohibited.
- 5 Ultraviolet bactericidal irradiators of closed type are installed in the wards. pa.
- 6. The purulent surgery department is cleaned at least 2 times a day and after changing clothes using disinfectants (1% solution of chloramine, 0.5% solution of Ca hypochlorite).

ORGANIZATION OF THE COLLECTION. STORAGE AND DISPOSAL OF SCRAP OF SINGLE-USE MEDICAL DEVICES FROM PLASTIC MASS

- I. In institutions, organizations and enterprises of the country's health care system, appoint persons responsible for the collection, storage and delivery of used single-use syringes.
- 2. After use, each syringe should be disinfected using des. Ras-

creators. Immerse the product in a disinfectant solution after preliminary 2-3 rinsing with the same solution in order to fill all cavities of the product with it. Filling the product with a solution prevents it from floating up.

3. To ensure the safety of personnel when performing work on the disinfection of single-use medical products made of plastics, one should be guided by the "Rules for labor protection of workers in the disinfection department and on the maintenance of disinfection stations, disinfection departments, preventive disinfection departments of sanitary-epidemiological stations, individual disinfectants. "In accordance with the" Regulations on the organization of work on labor protection and safety measures in bodies, institutions, enterprises and organizations of the system of the Ministry of Health

USSR ", approved by the Order of the Ministry of Health. USSR dated August 30, 1982 No. 862.

The heads of the structural divisions where the specified work is carried out are obliged develop appropriate labor protection instructions for service personnel.

4. The following agents can be used to disinfect syringes:

Name of funds	Concentration solution	Disinfection time vania
Tiume of funds	Bolution	, miin
Hydrogen peroxide	6% (by LDV)	60 minutes
Chloramine	5% (by preparation)	60 minutes
Chloramine Activated Solution	0.5% (by preparation)	60 minutes
Neutral hypochlorite	6% (by LDV) 5% (by preparation) 0.5% (by preparation) 1.5% (by preparation)	60 minutes
Sulfochloramine	0.5% (by preparation)	60 minutes

The above disinfection of disposable plastic products completely prevents the possibility of infection with pathogens of bacterial and viral infections, including AIDS and hepatitis B.

5. After disinfection of single-use syringes made of plastics, it completely prevents the possibility of infection with pathogens of bacterial and viral infections, including AIDS and hepatitis B.

Polypropylene: cylinder width, needle head, low pressure polyethylene: piston rod, protective cap.

The presence of metallic or other inclusions is not allowed.

- 6. To exclude the possibility of reuse of disinfected single-use plastic products, it is necessary to deform them. For this, the separated products from homogeneous plastics are loaded into bixes, having covered the bottom of the bix with packaging paper to prevent the fused syringes from sticking to the bottom and walls. Load the bixes into sterilizers available in this medical institution:
 - steam sterilizer at 132 ° –20 min. (provides deformation and sterilization),.
 - air sterilizer at 180° 60° min. (provides disinfection and deformation).
- 7. In the future, the sintered mass from different bixes is stored separately.

Tests-assignments to control the initial level of knowledge (I part)

- **1.** Where are the medicines and medical equipment kept by the guard nurse? *Answer:* Medicines and medications. the inventory is kept in a special closet of the sentinel's sister.
- **2.** How are medicines located in the closet of the sentry's sister? *Answer:* Medicines are arranged in groups.
- **3.** Name the group of medicines that should be kept separate from each other.

Answer: Groups of drugs: 1) poisonous, 2) potent, 3) sterile,

4) internal, 5) external.

4. How should strong-smelling medicines be stored?

Answer: Strong-smelling medicines should be kept separately as their odors are passed on to other medicines.

- **5.** How are medical equipment stored (dressings, syringes, thermometers)? Answer: Medical inventory is stored separately from medicines.
- **6.** Where are the items for patient care (ship, enemas, etc.) stored? *Answer:* Patient care items are stored separately from medicines and equipment.
- **7.** Where are poisonous medicines (drugs, strychnine, arsenic, etc.) stored? Answer: Poisonous medicines are stored in cabinet "A" under lock and key or in a safe.
- **8.** Where are potent drugs (hypnotics atropine, adrenaline, etc.) stored? Answer: Strong medicines are stored in cabinet "B".
- **9.** How is the consumption of poisonous and potent drugs kept track of? *Answer:* To account for the consumption of poisonous and potent drugs, separate notebooks are
- set up, the sheets of which must be numbered and stitched.

 10. Who is responsible for the prescription and consumption of group A and B drugs? Answer:
- The doctor is responsible for the prescription and consumption of drugs of groups "A" and "B". **11.** Where are quickly perishable medicines (infusions, decoctions, ointments) stored? *Answer:* Quickly perishable medicines are kept in the refrigerator.
- **12.** How many days can sterile bottled solutions be stored? Answer: Sterile solutions in bottles are stored for no more than 3 days and then poured out.
- **13.** What are the signs of deterioration of medicinal substances? *Answer:* Signs of deterioration of medicinal substances: 1) the appearance of flakes, 2) a change in color, 3) a change in odor.
- **14.** In what packaging should finished pharmaceutical products obtained from the pharmacy be stored?

Answer: Finished medicinal products should be stored in the packaging in which they were dispensed from the pharmacy.

15. What should a sister do before giving medicine to a sick person?

Answer: Before giving a medicine to a patient, you need to carefully read its name and dosage.

16. When should medication be given to patients?

Answer: 16.1. Medicines should be dispensed immediately prior to their use on the procedural sheet.

17. What are the methods of drug administration? Answer: 1. Outside. 2.

Enteral. 3. Parenteral.

18. What types of external use of medicines do you know?

Answer: 1. Rubbing. 2. Lubrication. 3. Plaster. 4. Dusting or dusting.

- 5. Inhalation. 6. Instillation of drops in the eyes, ears, nose.
- **19.** What should be done if the patient is mistakenly given another drug or its dosage is exceeded? *Answer:* You should immediately inform your doctor.

1. Train students on the use of drugs on the skin.

- 1. The application of medicines should be done only on clean skin, with a clean instrument.
- 2. In the case of rubbing in the ointment, the skin is pre-washed with soap, and then the medicine is rubbed in.
- 3. In the case of rubbing the ointment into the hairy parts of the body, the hair is shaved off.
- 4. To rub the skin area with a liquid medicinal substance, it is poured onto the palm, and then rubbed.
 - 2. Teach students to take oral medication.

- 1. Ensure that enteral drug administration is the most convenient and safest method of treatment.
- 2. Show all dosage forms used for enteral administration (powders, tablets, drops, etc.).
- 3. Explain that in case of impossibility of swallowing, the medicine is administered in a suppository or enema through the rectum

Questions to control the final level of educational material

Option 1

1. What are the methods of drug administration?

Answer: The medicine can be applied externally, taken orally, or administered parenterally. rally.

- **2.** Forms of medicines used externally. Answer: Ointment, liniment, talkers, aerosol, liquid.
- **3.** What are the forms of oral medications?

Answer: Infusion, decoctions, tablets, pills, medicine, powders, syrup.

- **4.** What are the known dosage forms used for parenteral administration? Answer: Solutions in ampoules, vials, special containers.
- **5.** Stages of pre-sterilization processing of medical instruments.

Answer: Medical instruments are pre-rinsed with running water,

then soaked in a washing solution and treated in it with a brush or cotton swab, rinsed in distilled water and dried with hot air.

6. What are the rules for inserting instruments into the sterilizer before boiling?

Answer: Disassembled syringes are wrapped with a gauze napkin and placed on napkins in a sterilizer, which is poured with cold distilled water or twice boiled with the addition of sodium hydrochloride and boiled.

How long does it take to sterilize instruments in the departments?

Answer: In ordinary compartments, the boiling time is 45 minutes.

8. What are the tests for detecting occult blood on instruments?

Answer: Benzidine and orthodone tests.

- **9.** Name the samples used to identify contamination residues on instruments. Answer: Phenolphthalein test.
- **10.** How long does it take to sterilize instruments in the department where a patient with viral hepatitis is staying?

Answer: Within 1.5-2 hours.

Option 2

7.

1. Technology for external use of drugs.

Answer: The application of medicines should always be done on clean skin with a tool and thoroughly washed hands.

2. Enteral drug administration technology.

Answer: The advantage of enteral administration of drugs is that. that in this case, various forms are used not in sterile form.

3. Who is the distributor of medicines?

Answer: Produced only by a nurse and taking medication to patients must be in her presence.

4. For what purpose is the recipe for the entire department going to the head nurse? Answer: The head nurse should check the correctness of the prescription

signatures to be signed with the head of the department, after which the preparation of medicines is started at the pharmacy.

5. In what form do medicinal substances come from the pharmacy?

Answer: Ready for use.

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- **6.** What should be done before giving medicine to a patient?
 - Answer: You should carefully read the label on the package.
- **7.** Where are the special cabinets for storing medicines located and who is supervised? Answer: At the post of a nurse and monitored by sentry nursesramie.
- **8.** How should medicines be arranged on the shelves?

Answer: It is advisable to arrange in accordance with their view, they put larger ones behind dishes, and in front - smaller. This makes it possible to read any label and take the right medicine.

9. What are the reasons for the safety of drugs?

Answer: For many reasons: forms (powders, tablets, medicines), temperature and humidity the quality of the room, lighting, the quality of the closure.

10. What forms of drugs spoil the fastest?

Answer: Infusions and decoctions, they should be stored in a cool place, preferably in a refrigerator.

11. What to remember when storing alcohol and ether solutions?

Answer: Alcohol and ethereal solutions evaporate, therefore they become more concentrated, which can lead to overdose and poisoning.

12. How long can sterile solutions not in ampoules last?

Answer: The duration of storage of sterile solutions (outside ampoules) depends on the period indicated by the pharmacy.

Situational tasks

1. After sterilizing the syringe and needles, the nurse touched the needle. What should be done to prevent complications?

Answer: Change the needle as it has become non-sterile.

- **2.** The patient mistakenly took a nitroglycerin tablet not under the tongue, but inside. Is it dangerous? Answer: No.
- **3.** The nurse delivered a sterilizer with medical instruments for sterilization, did not conduct proper sterilization preparation. What should a nurse do to ensure proper sterilization?

Answer: Fulfill all these requirements of pre-sterilization processing of instruments (rinsing, soaking, processing, etc.)

4. The nurse, having drawn the medicine into a syringe, put cotton wool on the needle. How does such a violation threaten the patient?

Answer: In this case, it is unacceptable to apply cotton wool to the tip of the needle, since cotton fibers, having got into the tissue, create conditions for abscess formation.

5. In the hospital, the number of abscesses is increasing. How can this be explained?

Answer: Poor pre-sterilization preparation of syringes or insufficient boiling and autoclaving. Insufficient skin treatment.

Abstract Topics (UIRS)

- **1.** Intolerance to drugs.
- 2. Penicillin shock and emergency help with it.
- **3.** Anaphylactic shock and emergency care for it.
- **4.** Modern views on allergies, sensitization.

Control questions:

- 1. What are the rules for prescribing and recording drugs in the department?
- 2. What are the general requirements for the storage of medicinal substances?
- **3.** How to properly store and record strong and narcotic drugs?
- 4. What are the features of storing drugs infused with alcohol and containing

ether?

- **5.** What are the rules and features of the distribution of drugs in the department? List of appointments and rules for working with it.
- **6.** List the methods of drug administration.
- 7. What methods of external application of medicinal substances do you know?
- **8.** Give a characteristic of the enteral route of administration of medicinal substances.
- **9.** What is the technique for introducing rectal suppositories?

Final control: carried out by random testing of practical skills:

- 1. The use of iodine, powders, plaster.
- 2. Applying ointment compresses.
- **3.** Introduction of drops into the eyes, ears, nose.
- **4.** Distribution of medicines on an individual basis.

TEST CONTROL

- **1.** What is meant by the term substance abuse?
 - a) poisoning with various poisonous substances;
 - b) pathological addiction to various drugs, chemicals;
 - c) pathological addiction to drugs.
- **2.**Which of the following signs are common to infusions, decoctions and solutions? a) they are all used for internal use; b) they are all dosed in teaspoons or tablespoons; c) they all have the same state of aggregation.
- **3.** In what cases are medications prescribed by mouth after a meal?
 - a) if they irritate the gastric mucosa; b) if they are involved in digestion processes;
 - c) if they are destroyed by hydrochloric acid of gastric juice and digestive enzymes.
- **4.**How are syringes and needles sterilized? a) in an autoclave; b) in a dry heat cabinet;
 - c) using sterilizing gases; d) boiling.
- **5.** What are the complications associated with violation of the rules of asepsis and antiseptics during injections?
 - a) air and fat embolism; b) allergic reactions:
 - c) the development of post-injection infiltrates and abscesses;
 - d) disease with serum hepatitis.

TOPIC 9. SUBCUTANEOUS AND INTRAMUSCULAR INJECTION TECHNIQUE, INTRAVENOUS INJECTION TECHNIQUE, DROP INTRAVENOUS INFUSIONS.

Educational purpose: compliance with ethics and deontology during parenteral administration of drugs; the need for accurate and timely fulfillment of doctor's prescriptions; sensitive and courteous treatment of patients when performing manipulations, tactfully treat each other, the medical staff, be able to keep professional secrets. Instilling responsibility in students while working in the treatment room and in the department.

Equipment of the lesson: cotton wool, bandage, waxed paper, iodine tincture, ointments, plaster, eye drops, pipettes, spatula, powders, tablets, ampoules, a cup for mixtures, sterilizer, syringes, needles, tweezers, disinfectant solution, systems, dummies, phantoms.

The student should know:

- **1.** Parenteral administration of medicinal substances.
- 2. Syringe device. Syringe disassembly technique.
- **3.** Preparing the hands of the nurse and the patient's skin for injections.
- **4.** Syringe assembly technique. Collecting medicines from ampoules and vials.
- **5.**Delivery of the syringe to the patient's bed. The technique of subcutaneous, intramuscular injections.
- **6.** Features of the use of oil solutions for injection and processing after that syringes and needles.
- 7. Intravenous injection and infusion technique. Filling the system for dripping fluids.
- **8.** Possible complications with parenteral drug administration.
- **9.** Method of working with disposable syringes. Their benefits.

The student should be able to:

- 1. Collect the syringe and draw up the medicine from the ampoule.
- 2. Give subcutaneous, intramuscular, intravenous injections and infusions.

Plan and organizational structure of the lesson.

- 1. Greetings.
- **15.** The role of student attendance.
- **16.** Introductory remarks by the teacher. Target setting.
- **17.** Home assignment.
- **18.** Control and correction of the initial level of knowledge:
 - 1. Parenteral drug administration.
 - 2. Varieties of syringes, needles and their device.
 - **3.** Technique for disassembling and assembling syringes.
 - 4. Subcutaneous injection technique.
 - 5. Intramuscular injection technique.
 - **6.** Intravenous injection and infusion technique.
- **6.** Organization of the work of the treatment room.
- **7.** Acquaintance with the storage of medicines in the department.
- **8.** Demonstration of practical skills.
- **9.** Independent work of students in the department.
- **10.** Discussion of the results of independent work.

eleven.Control and correction of the final level of mastering the educational material.

Teach students the technique of parenteral drug administration:

a) subcutaneously

- 1. Subcutaneous injections are performed away from large vessels and nerve trunks.
- 2. The area of the skin where the medicine is supposed to be injected is pretreated with alcohol.

- 3. The skin is trapped in a fold and the needle is inserted subcutaneously.
- 4. The needle is inserted with a movement at an angle of 45° to a depth of 1-2 cm between the fingers of the left hand and the medicinal solution is slowly injected.
- 5. The needle is quickly removed.
- 6. The injection site is wiped with a cotton swab with alcohol or iodine.

b) intramuscularly

- 1. The optimal place for intramuscular injection of drugs is the upper square of the buttock.
- 2. Quickly injected into the middle of the fold to a depth of 7-8 cm.
- 3. Then pull the plunger toward you to make sure the needle is not in the vessel.
- 4. The needle is quickly removed after insertion and the skin is rubbed with alcohol.

c) intravenously (jet)

- 1. To perform this method, you must have a syringe (10-12 ml), a rubber band, alcohol and sterile material.
- 2. The nurse washes her hands thoroughly with soap and hot water, and wipes with alcohol.
- 3. Solutions for intravenous administration must be clear and without an expired date.
- 4. The solution is taken from the ampoule with a wide-diameter needle.
- 5. All bubbles are removed from the syringe.
- 6. The site of the proposed injection is carefully treated with alcohol (elbow fold).
- 7. A tourniquet is applied above the elbow bend in the middle of the shoulder and the vein is squeezed.
- 8. The introduction of the solution can be jet or drip.

d) intravenous (drip)

- 1. The patient lies on his back.
- 2. Fix the hand with a soft bandage.
- 3. It is better to choose a smaller vein for injection.
- 4. The container with the solution is placed at a height of 1 m.
- 5. The fluid flow rate is usually 50-60 drops per minute.
- 6. Before starting the introduction, carefully check the system (droppers, rubber tube, etc.).
- 7. After the introduction, the system is disassembled, washed, sterilized, it must be kept in a sterilizer.
- 8. The system for one-time use is discarded after administration of drugs.

Learn the antibiotic dilution technique.

- 1. First, determine the patient's reaction to the administration of antibiotics.
- 2. For this purpose, use the Bezredok technique (0.1 ml of an antibiotic solution is taken into a syringe, injected subcutaneously and the reaction is checked after 20 minutes).
- 3. If there are no deviations, another 0.5 ml of solution is injected, and after 20 minutes everything else.
- 4. In case of facial hyperemia, discomfort in the region of the heart, urgently call a doctor.
- 5. The syringe is delivered to the patient's bed on a tray in a sterile material.

Place 2-3 needles and sterile, alcohol-soaked cotton swabs on the tray.

Tests-assignments to control the initial level of knowledge (I part)

- **1.** Benefits of parenteral drug administration. Answer: 1. Speed of action. 2. Accuracy of dosage.
- **2.** What are the basic requirements for parenteral dosage forms. Answer: 1. No irritating effect on tissues. 2. Sterility.
- **3.** What are the main types of parenteral administration of medicinal substances? Answer: 1. Intradermal. 2. Subcutaneous. 3. Intramuscular. 4. Intravenous.
 - 5. Intra-arterial. 6. Introduction to cavities: pleural, abdominal, joints, etc.

- **4.** List the types of sterilization of instruments for parenteral administration. Answer: 1. Boiling
 - 2. Autoclaving 3. Soaking in antiseptic solutions.
 - 4. Gamma irradiation. 5. Dry heat. 6. Gas 7. Burning.
- 5. How many minutes should syringes and needles be boiled?

Answer: Not less than 45 minutes from the moment of boiling.

6.What area of the body is most convenient for intradermal injections?

Answer: The palmar surface of the forearm.

7. What syringes are used for intradermal injection?

Answer: With a graduation of at least 0.1 ml.

8. What needles are used for intradermal injection? Answer:

With a diameter of 0.4 ml.

9. How are the needles inserted for intradermal injection?

Answer: 1. At an angle of 15 °. 2. Slice up. 3. Into the thickness of the skin.

10. What is the criterion for the correctness of intradermal

administration? Answer: Formation of a "lemon crust".

11. What are the common sites for subcutaneous drug administration?

Answer: 1. The outer surface of the shoulder. 2. Subscapularis region.

- 3. The anterolateral surface of the thigh. 4. Anterolateral surface of the abdomen.
- 12. What are the advantages and indications for the use of the lateral surface of the shoulder.

Answer: 1. Technical convenience. 2. Ease of treatment of possible complications.

- 3. It is a universal place.
- 13. What are the advantages and indications for the use of the subscapularis? Answer: 1.

Does not interfere with active hand movements.

- 2. It is used for painful and localized drugs.
- 3. The usual place for prophylactic vaccinations.
- **14.** What are the advantages and indications for the use of the anterolateral surface of the thigh. Answer: 1. Large area. 2. Convenient for self-introduction.
 - 3. It is used in emergency situations and with self-administration.
- **15.** What are the advantages and indications for the use of the anterolateral surface of the abdominal wall.

Answer: 1. Poor blood supply.

- 2. It is used to extend the duration of the drug (insulin, heparin, etc.).
- **16.** How is a hypodermic needle inserted?
 - Answer: 1. Under the base of the skin fold. 2. At an angle of 30-45 °. 3. To a depth of 2-3 cm.
 - 4. At least 0.5 cm of the needle should remain above the skin.
- **17.** What muscles are injected into?

Answer: 1.In the gluteus maximus. 2.In the triceps muscle of the thigh. 3.In the quadriceps muscle of the thigh.

- **18.** What is the usual site used for intramuscular administration of drugs. Answer: Outer-upper quadrant of the buttocks.
- 19. What needles are used for intramuscular injection? Answer: 6-10 cm long.
- **20.** How is the needle inserted for intramuscular injection?

Answer: 1. At an angle of 60-90 ° 2. Sufficiently deep 3. No more than 2/3 of the needle.

- **21.** Procedure for placing syringes and needles in the sterilizer.
 - Answer: 1. Check for permeability and tightness.
 - 2. The syringes are disassembled.
 - 3. The cylinder is wrapped in cheesecloth, the piston immediately lies down.
 - 4. The needles are laid with mandrels.
- 22. Why are two tweezers, hooks and a kidney-shaped bowl put in the sterilizer?

Answer: To ensure aseptic conditions when assembling the syringe.

23. What kind of water is used for boiling syringes and for how many minutes do they boil? Answer: 1. Pour in warm distilled water.

- 2. Or plain water with the addition of a pinch of sodium bicarbonate (2% solution).
- 3. Boil for 40-45 minutes from the moment of boiling.
- **24.** How long does it take to boil if in a sterilizer

has any tool been added?

Answer: Boiling is carried out for another 40-45 minutes.

25. How to remove instruments from the sterilizer?

Answer: The mesh together with the syringes are taken out with hooks and placed obliquely on the edge of the sterilizer.

27. How to assemble a syringe?

Answer:1. Wash your hands with soap and, without wiping, wipe with alcohol.

2. Remove the cylinder from the sterilizer with tweezers (insert one branch inside the cylinder)

dra).

- 3. Intercept the cylinder with 2 fingers of the left hand.
- 4. Take the piston by the handle with tweezers and insert it into the cylinder.
- 5. Take the needle by the sleeve with tweezers, put it on the cone of the syringe and secure with rotational movements.
 - 6. Remove the mandrel from the needle with tweezers.

Tests-assignments to control the initial level of knowledge (II part)

1. What veins are used for intravenous injection?

List them in order of frequency of use.

Answer: 1. Elbow bend. 2. The back of the hand. 3. Anatomical snuffbox.

- 4. Shins. 5. Heads.
- **2.**List the rules for applying a tourniquet for intravenous injection. Answer:
 - 1. Above the site of the proposed puncture.
 - 2. "Venous tourniquet" (squeezing only a vein, but not an artery).
- 3. How is the needle inserted with an intravenous injection?

Answer: 1. Only in a clearly visible or palpable vein.

- 2. The skin is punctured at an angle of 30-45 $^{\circ}$, the vein is 5-10 $^{\circ}$.
- 3. The needle point is facing up.
- 4. What is the danger of an air embolism?

Answer: Air ingress from the right atrium into the left through the open oval window, which is present in 25% of people, and from there into the vessels of the systemic circulation, cerebral vessels, coronary arteries.

5. How is the correct position of the needle checked for intravenous injections?

Answer: By pulling on the plunger of the syringe, blood should appear in the syringe.

- 6. What should a nurse do if an IV fails? Answer: 1. Remove the needle, remove the tourniquet, if it has not yet been removed.
 - 2. By pressing the veins to stop the bleeding.
 - 3. Inject the drug into another vein.
 - 4. Put a warming semi-alcohol compress in place of the unsuccessful injection.
- 7. List the possible complications of intravenous injection.

Answer: 1. Pyrogenic reaction. 2. Fat embolism of the pulmonary vessels.

- 3. Air embolism of the vessels of the lungs.
- 4. Dizziness, collapse, heart rhythm disturbance.
- 5. Infiltrate. 6. Hematoma. 7. Sepsis. 8. Phlebitis.
- 9. Allergic reactions.

Complications.

K *pyrogenic reactions* can lead to the use of drugs with an expired shelf life, poorly prepared solutions. In patients with severe diseases of the cardiovascular system, this complication can be fatal.

Fat embolism of pulmonary vessels occurs when drugs are mistakenly injected into a vein, intended for intramuscular or subcutaneous

introduction, for example, a solution of camphor in oil. This is manifested by sudden pain in the area

stiffness of the heart, suffocation, cough, blue discoloration of the upper half of the chest.

Air embolism of the vessels of the lungs occurs when air bubbles that have not been removed from the syringe or blood transfusion system in a timely manner.

Dizziness, collapse, heart rhythm disturbance may be due to too rapid administration of the drug. **Infiltrate** is formed when the drug enters the subcutaneous fatty tissue. This occurs in the case of a through vein perforation. In order to prevent this complication, you should, by pulling the piston towards you, make sure that the needle is in the vein. In addition, during the administration of the drug, it is necessary to ensure that no swelling forms at the injection site, which indicates that the solution has entered the subcutaneous fatty tissue.

Getting under the skin of drugs such as aminophylline, calcium chloride is very painful. If this happens, it is recommended to put a semi-alcoholic or dry compress on the elbow bend area. *Hematomas* near the injection site are formed more often in patients with impaired blood

coagulation or increased vascular permeability. Prevention of this complication is a fairly long (at least 3-5 minutes) and tight pressing of the injection site (sterile swab with alcohol, pressure bandage).

Sepsis - generalized infection caused by bacterial blood poisoning. Typically occurs when reusable intravenous drip systems are not sterilized sufficiently.

Phlebitis - inflammation of the veins caused by chemical or physical irritation. Often accompanied by thrombosis of the affected vein.

Allergic reactions can occur with the use of most drugs. They appear in the form of itching of the skin, various skin rashes, Quincke's edema. The most dangerous form of reaction is anaphylactic shock, accompanied by shortness of breath, nausea, itching of the skin, decreased blood pressure, loss of consciousness, and blue skin. If a patient develops any of these symptoms, the drug should be stopped immediately and the doctor should be informed about the incident.

As can be seen from the above, the intravenous route of administration of medicinal substances, although it has significant advantages, can lead to a number of serious complications, in connection with which it is necessary to especially carefully observe the rules for its implementation.

Remember! The stages of intravenous injection are: control of sterility u suitability of drugs and equipment, application of a tourniquet on the arm, venipuncture, loosening of the tourniquet, slow administration of the drug.

Complications of intravenous injections are associated with improper administration of the drug (rapid administration, administration of an oily, irritating drug, etc.), perforation of the vein, and the development of local or generalized infection.

GENERAL INFORMATION ON IN-HOSPITAL INFECTIONS (IVI)

"Nosocomial infection (hospital, hospital, in-hospital, nosocomial) - any clinically recognizable infectious disease that affects the patient as a result of his admission to the hospital or seeking medical help, or hospital staff due to their work B this institution, regardless of the onset of symptoms of the disease during or after a hospital stay."

World Health Organization Office for Europe, 1979

Even in highly developed countries, more than 5% of hospital patients develop nosocomial infections.

MOST COMMON VBI:

- 1. Urinary tract infections •
- 2. Purulent septic infections
- 3. Respiratory tract infections
- 4. Bacteremia
- 5. Skin infections

For the emergence of nosocomial infections, the presence of three links of any epidemiological process is necessary, namely:

- 1. Causative agent
- 2. The means of transmission of the pathogen
- 3. Human body susceptible to infection

VBI:

- 1. **EXOGENIC** the source of infection is brought into the body from the outside
- 2. **ENDOGENOUS** the infectious agent is present in the body initially

AGENTS:

- Bacteria
 viruses
- 3. mushrooms
- 4. protozoa
- 5. multicellular parasites

VBI transmission mechanisms:

Aerosol
Contact

Fecal-oral
WBI transmission ways:

Airborne, airborne dust Contact, contacthousehold Food

Artifical (artificial) transmission route

THE MAIN WAY OF PREVENTION INBI- DESTROYING THE CHAIN OF INFECTION

Ways to destroy the chain of infection:

- Implementation of effective control over nosocomial infections.
- Elimination of infectious agents.
- Interruption of transmission paths.
- Increasing the resistance of the human body (immunity).

Comprehensive epidemiological measures should be aimed at all 4 links, in addition, it is necessary to carry out a set of medical measures: reducing the trauma of medical interventions, antibiotic prophylaxis of nosocomial infections, etc.

DISINFECTION = DISINFECTION DISINFECTION IS:

- 1. Anti-epidemic measures aimed at interrupting the epidemic process by influencing thetransmission mechanism of the pathogen;
- 2. Destruction of pathogenic and opportunistic microorganisms (except for their spores) from objects of the external environment or skin to a level that does not pose a threat to health

PURPOSE OF DISINFECTION: Removal or destruction of pathogens of infectious diseases from objects of the external environment of wards and functional rooms of hospitals, on medical equipment and instruments

TYPES OF DISINFECTION

- **1. Preventive** (in the absence of a focus of infection)
- **2. Current** (performed multiple times in a home or health care facility)
- **3. Focal** (if there is an infection)
- **4.** The final (performed once after hospitalization, transfer or death of the patient)

TYPES OF DISINFECTION

MECHANICAL - washing, vacuum cleaning, ventilation; airing, washing, etc.

PHYSICAL - boiling, exposure to hot dry air, saturated water vapor under excess pressure, ultraviolet radiation, etc.

CHEMICAL - the use of chemicals (antiseptics and disinfectants)

COMBINED - combining the use of several of the listed methods (for example, damp cleaning of premises followed by ultraviolet irradiation)

THE CHOICE OF THE DISINFECTION METHOD DEPENDS ON A LARGE NUMBER OF FACTORS, INCLUDING THE MATERIAL OF THE OBJECT TO BE DISINFECTED, THE NUMBER AND TYPE OF MICROORGANISMS SUBJECT TO THE DESTRUCTION OF RISE, AND ALSO

THREE CATEGORIES OF	RISK OF INFECTIOUS INFECT	TION IN CONTACT WITH
ENVIRONMENTAL FACT	ORS AND RECOMMENDED LE	VELS OF DISINFECTION
LOW RISK	MEDIUM RISK	HIGH RISK
Items in contact	Equipment used	Items, penetrating into
with healthy and intact co-	which is not supposed	sterile tissues, including
		le in the body cavity and
live, or inanimate, objects	no penetration through. co-	vascular
environment, not con-	zhu ive sterile areas	simple systems (for example,
tactical with the patient	human body, but contact	rurgical tools,
(walls, floors, ceilings,	eats with mucous membranes	intrauterine devices).
linen, plumbing and canal-	kami or damaged skin	Cleaning required after-
lizational equipment).	zhey, as well as other items	blowing sterilization.
metho		
Usually adequate d-	you contaminated with disease	If it is impossible to sterilize
ladies decontamination is		sometimes sufficient -
cleaning and dehumidification	swelling microorganisms	enhanced disinfection
	(e.g. endoscopes for	
	Gastrointestinal tract, vaginal	
	instruments	
cops, thermometers). Adec-		
	cotton method of disinfection	
	- cleaning followed by	
	disinfection	

HEPATITIS B

Viral hepatitis is a large group of viral anthroponotic diseases,

occurring with damage to the liver tissue, etiological, epidemiological μ the pathogenetic characteristics of which are different, however, the clinical manifestations are quite the same type, the outcomes and consequences are due to the peculiarities of the etiology and pathogenesis.

Hepatitis B is a global problem of world and national health care. More than 2 billion people are infected with the hepatitis B virus, which is 1/3 of the world's population.

Every year in the world people die from diseases associated with hepatitis B: 100 thousand people - from fulminant (fulminant) forms, 300 thousand people - from primary liver cancer, 500 thousand people - from acute infection, 700 thousand people -

from cirrhosis

WAYS OF TRANSMISSION OF HEPATITIS B

- 1. By contact with blood or other body fluids (parenteral)
- 2. Upon contact with household items contaminated with the patient's biological fluids (contact-household)
- 3. Mother to child (perinatal)
- 4. During sexual intercourse with an infected person (sexual)

PREVENTION OF HEPATITIS IN MEDICAL WORKERS Reducing the risk of

hepatitis B virus (HBV) transmission is based on careful a well-thought-out system of preventive measures, which (on the recommendation of the WHO Committee on the Prevention of Viral Hepatitis) include:

application of forms and methods of work that meet safety regulations most

high modern standards;

- strict adherence to universal preventive measures, the use of appropriate personal protective equipment;
- active vaccination of people belonging to high-risk groups;
- epidemiological analysis of cases of occupational HBV infection, carrying out the necessary
- anti-epidemic measures in each case;
- documentary registration of cases of infection.

UNIVERSAL PREVENTIVE MEASURES

- health workers dealing with blood or other biological fluids should consider all patients as a potential source of infection with hepatitis viruses;
- precautions such as the use of gloves, masks, gowns and other means should be strictly observed (for example, glasses protect the eyes, waterproof clothing protects the skin, etc.);
- injections, dressings and disposal of waste materials must be carried out in strict accordance with the existing orders and recommendations.

EMERGENCY MEASURES AGAINST POSSIBLE INFECTION HEPATITIS B

It is necessary to determine the titers of antibodies no later than 48 hours after possible infection.

If the health worker has not been previously vaccinated or his antibody titers are below 10 IU / L, then, in addition to vaccination, it is recommended to administer hepatitis B immunoglobulin.

HAND TREATMENT

HAND WASHING IS THE MOST EFFECTIVE METHOD OF PREVENTION DISTRIBUTION OF MICROORGANISMS BETWEEN STAFF AND PATIENTS OF A THERAPEUTIC AND PREVENTIVE INSTITUTION

LEVELS OF HAND DECONTAMINATION I. SOCIAL LEVEL (DOMESTIC)

Washing moderately soiled hands with plain soap and water removes most temporary microorganisms from the skin. Special treatment of hands is carried out:

- before eating, feeding patients, working with food;
- after using the toilet;
- before and after caring for the patient;
- after any contamination of hands

II. HYGIENE LEVEL (DISINFECTION)

Hand washing with antiseptic products. Promotes more effective removal of temporary microorganisms. Hygienic processing is carried out:

- before performing invasive procedures;
- before caring for an immunocompromised patient;
- before and after care of the wound and urinary catheter;
- before and after putting on gloves;
- after contact with body fluids or after possible microbial contamination

SURGICAL LEVEL. It is performed before any surgical intervention and involves a special treatment of the hands.

Target: destruction of transient flora and reduction of the content of resident organisms to prevent the risk of contamination of the surgical wound in case of damage to gloves. The same substances are used as for hygienic processing. A certain method of hand disinfection is important.

HAND WASHING METHOD

REPEAT EACH STEP 5 ONCE

- 1. Palm to palm
- 2. Right palm over left rear
- 3. Left palm over right rear
- 4. Palm to palm, fingers of one hand in the interdigital spaces of the other
- 5. The back of the fingers to the palm of the other hand
- 6. Rotational friction of the palms
- 7. Rotational friction of the thumbs

SUBSTANCES USED TO WASH HANDS AS ANTISEPTICS

WATER	ALCOHOLS
1. Povidone-iodine solution with detergent	1.5% solution of chlorhexidine or povidone-
estom containing 0.75% of available iodine.	iodine solution in 70% isopropanol or
2. Moisten your hands with clean water, moisten	rounic solution in 70% isopropanor of
with a	ethanol, 60% isopropanol solution or 70%
substance (3-5 ml depending on	ethanol solution with a softener (for example,
its composition) or thoroughly lather. Wash	0.5% glycerin).
hands 10-15 s, applying the above-described	0.5 % glycelin).
method	2. Apply to hands at least 3 ml of 70% alcohol
tod and dry	or an antiseptic alcohol drug
3.4% solution of chlorhexidine bigjonate with	with softener and rub dry. Alcohol
detergent.	more effective than water antiseptic
	solutions, but with significant contamination
	hands may need to be
	body wash.
	3. Alcohol is effective when needed.
	quick hand disinfection is required if there is no
	water or towels.

FEATURES OF HAND SURGERY

Substances: The same as for hygienic hand washing. When using alcohol preparation, it is applied 2 times, 5 ml. Grind each portion to dryness.

Treatment: The duration increases to 2-3 minutes; covers the wrists and forearms

whose.

Availability of watches and rings: Reduces processing efficiency. Sterile brushes: Used only for nails, apply only din once at the beginning of the working day.

TOOL HANDLING

Decontamination of medical instruments - the process of removing or destroying microorganisms in order to ensure the infectious safety of an object

TYPES OF TOOL DECONTAMINATION Carried out using chemical and physical disinfection methods

CLEANING	DISINFECTION (DISINFECTION OF MEDIA HIS LEVEL)	REINFORCED DESIN FECTION (DISINFEK- CIA HIGH LEVEL)	STERILIZATION
from the			
Deleting object	A process that reduces	The process destroys	Destruction process
			all types of
outside mothers	number pathogen-	niya tuberculous	microorganisms
alov (organic and	microorganisms	mycobacteria and en-	ganisms, a also
inorganic substances	mov, but not obligatory	thero-viruses as well	bacterial spores. Osu-
			W
entities microorganis	but the spore of		it
and m	bacteria, with	other vegetative	is developing h help-
nizms). Meticulous	inanimate objects	forms of bacteria, fungi	cabbage special
cleaning and drying	or skin	boy and more stable	methods: -chemical
nie; remove pain	to a level not pre-	out viruses (may	(gas, chemical
minority microorganis	posing a dangerous	stay only	with drugs) phi-

	m					
nizms						
with	items.	for health	sustainable o	disputes	zicheskih	(steam,
	Cleaning before		(botulism, tetanu	s)	air,	glasper-
	no final				flax,	radiation

work (disinfectant	naya, plasma)
tion and sterilization).	, , ,
Implemented	
manually - in water	
solution washing	
funds through	
brushes or wadded	
gauze swab	

MEDICAL PROCESSING SEQUENCE INSTRUMENTS

- 1. Preliminary (primary) disinfection. Objective: Disinfection of tools to protect nursing staff performing infection clearance
- 2. Rinsing with running water. Purpose: Disinfectant removal
- 3. Cleaning (soaking and mechanical cleaning). Purpose: Removal of all possible contamination
- 4. Rinsing with running water. Purpose: Removal of residual cleaning solution and dirt
- 5. Rinsing with distilled water. Purpose: Complete removal of cleaning solution residues and dirt
- 6. Drying. Purpose: Removal of water that can dilute the disinfectant solution for final disinfection or sterilization
- 7. Final processing (final disinfection and sterilization). Objective: To protect the patient from infection
- 8. Storage of sterile (disinfected) material

ENVIRONMENTAL CLASSIFICATION BY RISK CATEGORIES OF TRANSFER OF NOSE

LOW RISK	MEDIUM RI		HIGH RISK
(NON-CRITICAL	(SEMI-CRITICAL		(CRITICAL PRE-
ITEMS)	ITEMS)		META)
Items in contact	Equipment,	in contact	Items penetrating
	with mucous membran	es or	
with healthy skin, not con-	damage		sterile tissue, in yum clean
			le in the cavity of the gel and
tactical with mucous membranes	expected skin (respirat	ory and	vascular
(tonometers, axillary	anesthetic	equipment	systems (surgical
thermometers, crutches,	treatment, endoscopes,	rectal	instruments, imilants.
linen), as well as non-	thermometers, vaginal		needles, intrauterine devices
living objects around	instruments), as well a	s any	state, vascular catheters,
environment, not in contact	items,	contact	soaked catheters). Adec-
			cotton method with
with patients (walls,	mined	virulent	decontamination
floors, ceilings, furniture, san-	microorganisms.	Adequate	nation - cleaning up after-
Technics). Adequate way	new method of decon	tamination	blowing sterilization
decontamination sob -	- cleaning	followed by	
cleaning or disinfection	•	medium or	
low level	high level (depending	on	
	from equipment)		

PRECAUTIONS FOR MANUAL CLEANING

- 1. Careful handling of sharp objects
- 2. Latex gloves of sufficient thickness
- 3. Waterproof apron / robe
- 4. Protective glasses
- 5. Mask

HIV. AIDS

HIV infection is a disease caused by the human immunodeficiency virus, characterized by a slowly progressive defect in the immune system, which leads to the death of the patient from secondary lesions (infectious and tumor processes), described as acquired immunodeficiency syndrome (AIDS), or from subacute encephalitis.

TRANSMISSION WAYS

- 1. Sexual
- 2. Parenteral
- 3. When breastfeeding
- 4. Vertical

CLINICAL CLASSIFICATION OF HIV INFECTION

- **1. INCUBATION STAGE.** From the moment of infection until the appearance of antibodies. Diagnosis can be confirmed by polymerase chain reaction in the detection of HIV-RNA antigen. Isolation of HIV antigen by ELISA has low specificity
- **2. STAGE OF PRIMARY MANIFESTATIONS.** Characterized by the relative balance between the immune response of the body and the action of the virus. Duration from 2-3 to 10-15 years
- **ACUTE INFECTION.** Usually lasts 2-3 weeks. Accompanied by fever of varying severity, lymphadenopenia, enlarged liver
- и spleen, skin rashes, meningeal phenomena are possible. Then it goes to stage 2B or 2B
- **2B. SYMPTOMIC INFECTION**It is characterized by the absence of clinical manifestations. There may be a moderate swelling of the lymph nodes. In contrast to the incubation stage, antibodies to HIV antigens are determined
- **2B. PERSISTY RUNNING INFECTION.**Characterized by persistent generalized lymphadenopathy, which is the only clinical manifestation at this stage
- **3. STAGE OF SECONDARY DISEASES.** With the progression of the disease clinical symptoms develop, indicating a deepening of the damage to the immune system, which characterizes the onset of the 3rd stage
- **PER**... It is characterized by weight loss of less than 10%, bacterial, fungal, viral lesions of the mucous membranes and skin, inflammatory diseases of the upper respiratory tract.
- **ZB**... It is characterized by a weight loss of more than 10%, skin lesions of a deeper nature, a tendency to a protracted course. Lesions of internal organs, localized Kaposi's sarcoma develop.
 - **3B.** It is characterized by cachexia, generalization of infectious diseases,

disseminated Kaposi's sarcoma, severe lesions of the central nervous system of various etiologies

4. TERMINAL STAGE

It is characterized by irreversible damage to organs and systems. Even an adequately conducted therapy of secondary diseases is ineffective, and the patient dies within a few months.

MEASURES FOR PREVENTION OF HIV INFECTION IN MEDICAL INSTITUTIONS

The most real danger of infection arises from ruptures and punctures of gloves, which can lead to contact of contaminated material on the skin, possibly with microtrauma, especially with injections and cuts. To reduce the likelihood of infection in such cases, it is recommended:

- 1. When preparing for the manipulation of a patient with HIV infection, make sure that the emergency first-aid kit is intact.
- 2. Perform manipulations in the presence of a second specialist who can B if gloves are torn or cut, continue.
 - 3. Treat the skin of the nail phalanges with iodine before putting on gloves.
- 4. If contaminated material comes into contact with the skin: treat it with 70% alcohol, wash it with soap and water and re-disinfect it with 70% alcohol; treat mucous membranes with 0.05% potassium permanganate solution; rinse mouth and throat with 70% alcohol or 0.05% potassium permanganate solution. Do not rub! For injections and cuts, squeeze blood out of the wound and treat the wound with 5% iodine solution. It is recommended to take prophylactic thymoside (AZT) 800 mg / day for 30 days.

MASKS

Necessary to avoid airborne transmission of microorganisms, and also if there is a possibility of ingestion of body fluids into the mouth and nose. Masks should be replaced when they become wet. You can't put them down on neck, reuse. All masks must completely cover the mouth and nose. High quality disposable masks are much more effective than regular masks gauze or paper, to prevent the spread of vectors of airborne or droplet infections.

EYE PROTECTION

Protective eye and face barriers are needed to keep the eyes from splashing blood or body fluids.

Bathrobes and aprons

With the exception of operating theaters or isolation wards, where sterile gowns are worn to protect the patient, the main purpose of gowns and plastic aprons is to prevent the spread of infection from getting on staff's clothing and skin. Dressing gowns and aprons are necessary only when it is likely that wet body fluids will contaminate clothing or skin. Under no circumstances should the staff be allowed to take home to wash the robes.

UNIVERSAL SAFETY MEASURES FOR MEDICAL PERSONNEL AGAINST INFECTION

All patients should be considered as potentially infected with HIV and other bloodborne infections.

Medical personnel should remember and apply 7 safety rules to protect the skin and mucous membranes in contact with blood or body fluids of any patient.

- 1. Wash hands before and after any contact with the patient.
- 2. Treat blood and fluid from all patients as potentially infectious and handle only with gloves.
- 3. Immediately after use, place used syringes and catheters in a special container for disposal of sharps, never remove needle holders with needles from syringes and do not perform any manipulations with used needles.
- 4. Use eye protection and masks to prevent possible splashes of blood or liquid secretions into the face (during surgery, manipulation, catheterization and oral treatments).
- 5. Use special moisture-proof clothing to protect the body from possible splashes of blood or liquid secretions.
- 6. Treat all laundry soiled with blood or fluid as potentially infectious.
- 7. Treat all laboratory specimens as potentially infectious.

SAFETY OF MEDICAL PERSONNEL

Mechanisms of transmission of infection from patient to medical personnel

- 1. CONTACT
- 2. FECAL-ORAL
- 3. AEROSOL

4. TRANSMISSIBLE

GENERAL MEASURES FOR PREVENTING INFECTION

Initial and regular examinations with registration of the state of immunity and immunization.

All incidents (needle stick or cut) should be reported to the supervisor and recorded in the log book. The same applies to cases of infection through contact with the patient.

All skin lesions should be covered with a waterproof dressing.

IMMUNIZATION IS THE BEST MEANS OF PERSONNEL PROTECTION

DESIRABLE VACCINATIONS: from typhoid; flu, poliomyelitis (during an epidemic). BCG

An important point in the prevention of nosocomial infections among staff is personal hygiene. To the rule

Personal hygiene lamas include: a daily shower or bath, with special attention being paid to hair and nails; washing robes and other personal clothing thoroughly; protection of the mouth and nose (if possible with disposable protective equipment) and turning the head away from people nearby when coughing and sneezing; scrupulous hand washing.

USE OF GLOVES

At the slightest possibility of contact with blood or body fluids, mucous membranes or damaged skin of any patient, as well as in the presence of cuts or other damage to one's own skin, use gloves.

Gloves should be changed between patient contact and after contact with secretions and excreta before serving the same patient. Gloves used must be properly boxed. Sterile gloves are worn only for sterile procedures.

RECOMMENDED VACCINATIONS: from diphtheria, hepatitis B, tetanus

SEQUENCE FOR USE OF STERILE GLOVES

WEARING	REMOVAL	
	1. With the fingers of your right hand in a	
1. Unfold the glove box. 2.	glove, make	
Take the glove by the lapel with your left		
hand	fold the lapel on the left glove by touching	
so that your fingers do not touch the inner	her only from the outside. 2. Pal-	
the surface of the glove. 3. Close	with the left hand, make a lapel on the right	
fingers of the right hand and insert them		
into the first	howling glove, also touching it only with	
chat. 4. Open the fingers of the right hand	outside. 3. Remove the glove from	
ki and pull on a glove on them, do not		
violate	left hand, turning it inside out and	
sewing her lapel. 5. Bring under the lapel	holding the lapel. 4. Keep removed from	
left gloves 2nd, 3rd and 4th fingers of the		
right	left hand glove in right hand. 5.	
the howl of a hand, already wearing a	With your left hand, take the glove on your	
glove,	right	
so that the 1st pale of the right hand was	hand on the lapel on the inside and	
directed towards the 1st finger on the left	remove the glove from the right hand, turn	
directed towards the 1st finger on the left	out-	
howling glove. 6. Hold the left glove	turning it inside out. 6. Both gloves (le-	
with the 2nd, 3rd and 4th fingers of the right hand, ver-	vaya was inside the right) place	
tikally. 7. Close the fingers of the left hand	in a container with a disinfectant	
ki and put it in a glove. 8. Straighten	property (if they are reusable	
the lapel of the left glove, pulling it on	ization) or throw it away in a waterproof	
sleeve, then on the right with 2- and	my bag.	
3rd fire, bringing them under tucked	111, 045.	
the end of the glove.		
and that of the Stove.		

Questions to control the final level of the educational material.

- 1. Which vein is most often used for internal drug administration and why? Answer: The ulnar vein, the most accessible.
- **2.** What determines the choice of the method of drug administration? *Answer:* First of all, the patient's condition, as well as the nature of the medicinal effect.
- **3.** How is subcutaneous drug administration technically performed?

Answer: The area where the injection is supposed to be treated with alcohol, the skin is taken in a fold and a medicine is injected into its base, after which the needle is quickly removed, and the skin is wiped with alcohol.

4. What is the technological essence of intramuscular injections?

Answer: The place of intramuscular injection is treated with alcohol, in the middle of the fold (to a depth of 7-8 cm), the needle is quickly inserted, the piston is pulled back to make sure that the needle is not in the vessel and the medicine is injected, the needle is removed, and the injection site is wiped with alcohol.

- **5.** What are the complications of intravenous drug administration? Answer: Possibility of vascular embolism by accidental introduction of air.
- **6.** What are the conditions for drip (intravenous) administration of medicinal solutions? *Answer:* Use of sterile droppers, sterile solutions with provision slow flow of fluid flow (40-60 drops per minute). Monitoring the patient's condition.
- **7.** What should be done after removing the needle from the vein? *Answer:* After removing the needle, the injection site is treated with alcohol.
- **8.** What is the duty of a nurse if the patient's condition worsens after the administration of medication?

Answer: Call a doctor immediately and provide first aid.

9. In what cases the drug cannot be used for parenteral administration.

Answer: An error in the recipe, turbidity of the solution, precipitation, outdated date of manufacture.

10. What are the complications of venipuncture?

Answer: Unsuccessful puncture with the formation of hematoma, phlebitis.

11. What is the preparation of a nurse's hands for parenteral drug administration?

Answer: Before starting parenteral administration of drugs, the sister should thoroughly wash her hands with soap and a brush under running water, and then treat the skin with alcohol.

Situational tasks

one.The patient is injected subcutaneously with the drug into the anterior surface of the shoulder. What complications can you expect?

Answer: Damage to blood vessels or nerves is possible.

2. After intramuscular injection of penicillin, the patient turned pale, covered with cold sweat, the pulse became threadlike. What is this condition and how to stop it?

Answer: Acute vascular insufficiency. Lay the patient on their back.

Give a smell of ammonia, invite a doctor.

3. When transporting the sterile syringe to the patient's bedside, the nurse covered the needle with a cotton swab. What are the complications?

Answer: The needle has become non-sterile. A complication is possible - post-infectious abscess.

- **4.** When diluting penicillin, the nurse used a 2% solution of novocaine. What can happen? *Answer:* The antibiotic may not dissolve and precipitate.
- **5.** After venipuncture of the elbow bend, redness, swelling, soreness appeared in the injection area. What is allowed and how to fix it?

Answer: The drug was injected not into a vein, but subcutaneously. A warming compress should be put, if a hypertonic solution is injected, the injection site is injected with a 0.25% solution of novocaine.

6. After the introduction of the antibiotic, the patient developed reddening of the skin, unpleasant sensations in the heart, epigastric region. What does this mean and what needs to be done?

Answer: The patient has an allergic reaction to this antibiotic. Stop further administration of the antibiotic, inject antihistamines, calcium chloride; in case of severe reaction, prednisolone and hydrocortisone are injected intravenously.

7. At the time of intramuscular injection of the drug, the needle entered the blood vessel. What arethe consequences and how to deal with them?

Answer: There may be bleeding. Stop the injection, press the skin with a cotton swab with alcohol and keep it there for 2-3 minutes.

Control questions.

- 1. List the benefits of parenteral drug administration.
- **2.** Demonstrate the technique of assembling a sterile syringe with one and two tweezers, draw up the medicine from the ampoule. Make subcutaneous and intramuscular injections.
- **3.** Calculate and dilute antibiotics.
- **4.** Demonstrate techniques for working with disposable syringes.
- **5.** What are the possible complications of intravenous injections and infusions?
- **6.** Assemble a disposable drip system.
- 7. List the procedure for performing the intravenous injection and perform it on the dummy.
- **10.**List the most convenient sites for intradermal, subcutaneous, intramuscular, and intravenous injection.
- **12.** What is the intradermal injection technique?
- **13.** What is the subcutaneous injection technique?
- **14.** What is the intramuscular injection technique?
- **15.** What is the IV injection technique?
- **16.** What are the complications of intradermal, subcutaneous, intramuscular and intravenous injections?
- 17. What are the possible complications during subcutaneous and intramuscular injections?

Final control: carried out by spot checkspractical skills:

- 1. The use of iodine, powders, plaster.
- 2. Applying ointment compresses.
- **3.** Introduction of drops into the eyes, ears, nose.
- **4.** Distribution of medicines on an individual basis.

TEST CONTROL

one... What is the parenteral route of drug administration? a) the use of drugs by injection;

- b) any method of drug administration, bypassing the gastrointestinal tract; c) external use of drugs.
- 2... When is the rectal route of drug administration used?
 - a) if it is impossible or undesirable to take them orally;
 - b) if it is necessary to provide a local therapeutic effect;
 - c) if you need to get a quick and pronounced effect.
- **3...** When is it advisable to use injection methods of drug administration?
 - a) if you need to get a quick healing effect;

- b) if the drug acts for a very short time; c) if the drug is highly toxic;
- d) if it is necessary to ensure the exact concentration of the drug in the blood; e) if there are no other methods of drug administration.
- 4... What areas of the body are most convenient for subcutaneous injections?
 - a) the outer surface of the shoulder;
 - b) the inner surface of the shoulder;
 - c) the outer surface of the thigh;
 - d) the inner surface of the thigh;
 - e) subscapular region;
 - f) sidethe surface of the abdominal wall.
- 5... What areas of the body are most convenient for intramuscular injections?
 - a) the outer surface of the thigh;
 - b) the inner surface of the thigh;
 - c) the lateral surface of the abdominal wall;
 - d) the upper outer quadrant of the buttocks;
 - e) subscapular region.
- **6...** What are the indications for the use of intravenous fluids?
 - a) a decrease in the volume of circulating blood;
 - b) intoxication of the body pwith infectious diseases and poisoning;
 - c) increased blood pressure;
 - d) violations of the water-electrolyte balance and acid-base state.
- 7... What is the role of the airway tube in the IV drip system?
 - a) displaces liquid from a bottle with a solution;
 - b) prevents the penetration of air into the pipes of the system;
 - c) promotes the drip movement of the fluid through the system.

TOPIC10: MONITORING AND CARE OF PATIENTS WITH RESPIRATORY DISEASES.

Educational purpose: observance of the principles of ethics and deontology in caring for patients with respiratory diseases, elderly and senile patients.

Equipment of the lesson: Spirometer, pneumotachometer, stopwatches for counting the frequency of respiratory movements, floor and spittoon bowls for individual use with a ground-in lid, a set of instruments for pleural puncture (needles, syringes, pleuroaspirator, Bobrov apparatus), a set of medicines to provide assistance in case of acute cardiovascular failure during pleural puncture (ammonia, cordiamine), oxygen pillows, oxygen cylinders with reducers, installations for centralized oxygen supply, nasal catheters, temperature sheets for recording respiration, pulse and blood pressure, a set of medications for providing emergency care for pulmonary bleeding (camphor, epsilon-aminocaproic acid, calcium chloride solution, ascorbic acid solution, rubber bands.

The student should know:

- 1. The method of counting the number of respiratory movements and register in the temperature sheet.
- 2. To acquaint students with the main symptoms of respiratory diseases: shortness of breath,

cough, pleural pain, pathological discharge from the respiratory tract when coughing (sputum, hemoptysis).

- **3.** The concept of shortness of breath and choking. Creating a comfortable position for the patient in bed, using a headrest, a functional bed.
- **4.** Determination of disturbances in the phases of breathing, as well as the determination of disturbances in the rhythm and frequency of respiratory movements.
- **5.** Provide emergency assistance for respiratory diseases (choking, shortness of breath, coughing, hemoptysis)
- **6.** Rules of caring for bed patients with respiratory diseases.
- 7. Oxygen cushion filling and delivery to patients.

Use of various oxygen installations. Oxygen humidification.

- **8.** Cough, help with it.
- **9.** Collecting sputum in measuring glasses during the day, in a pocket spittoon. Des infection of the spittoon. Referral of sputum to the laboratory.
- 10. Symptoms of hemoptysis, pulmonary hemorrhage. Urgent first aid.
- 11. Inhaler use.
- **12.** General care of patients with respiratory diseases.
- **13.** Organization of the work of the nurse of the pulmonary department.
- 14. Features of monitoring and caring for elderly and senile patients with respiratory diseases.

The student should be able to:

- 1. Use and sanitize the spittoon.
- 2. Calculate respiratory movements, record them graphically.
- 3. Provide first aid for an attack of unproductive cough.
- **4.** Use a functional bed and other devices to create a comfortable position for the patient (strengthening skills).
- **5.** Use an inhaler.
- **6.** Put cans, mustard plasters, compresses (consolidation of previously acquired skills).
- 7. Give the patient humidified oxygen.
- **8.** Collect the phlegm and send it to the laboratory.
- **9.** Provide first aid for pulmonary and nosebleeds.
- **10.** Apply an ice pack (skill consolidation).
- 11. Provide first aid for choking.

Plan and organizational structure of the lesson.

- 1. Greetings.
- 2. The role of student attendance.
- **3.** Introductory remarks by the teacher. Target setting.
- **4.** Home assignment.
- **5.** Control and correction of the initial level of knowledge:
 - **1.** Anatomy and physiology of the respiratory system.
 - 2. Determination of external respiration.
 - **3.** Types of breathing (chest, abdominal, mixed). Pathological types of breathing

(breathing of Kussmaul, Biot, Grokk, Cheyne - Stokes).

- **4.** Respiratory movement counting technique. Registration of the breath curve on the temperature sheet.
- **5.** List the main symptoms of respiratory impairment.
- **6.** The concept of shortness of breath and choking. Creation of a comfortable position for the patient in bed, use of a headrest, a functional bed.
- 7. Cough, help with it.

- **8.** Symptoms of hemoptysis, pulmonary hemorrhage. Urgent first aid.
- **9.** Collecting sputum in measuring glasses during the day, in pocket spittoons. Disinfection of the spittoon.
- **10.** Sputum collection technique for laboratory research:
 - collection of sputum for general clinical research
 - -/- for the detection of Mycobacterium tuberculosis
 - -/- antibiotic sensitivity
- 11. Monitoring and caring for patients with respiratory diseases.
- **12.** Features of caring for elderly and senile patients.
- 13. Oxygen therapy. Safety precautions when working with oxygen.
- **14.** Hyperbaric oxygenation, complications.
- 15. Methods for using oxygen.
- **16.** Pleural puncture (pleurocentesis, thoracocentesis), complications. Technique for diagnostic and therapeutic pleurocentesis.
- 17. Organization of the work of a nurse in the pulmonary department
- **6.** Demonstration of patients with respiratory diseases.
- **7.** Monitoring the implementation of manipulations by students: counting the number of respiratory movements, their graphical recording in the temperature sheet, filling the oxygen cushion. Providing patients with an oxygen pillow, etc.
- **8.** Independent work of students in the department.
- **9.** Discussion of the results of independent work.

eleven.Control and correction of the final level of mastering the educational material (solving situational problems).

Tests-assignments to control the initial level of students' knowledge (1 part).

1. Define shortness of breath.

Answer: Shortness of breath is a difficulty in breathing, characterized by a violation of the frequency, rhythm, depth of respiratory movements and the ratio of the phases of inhalation and exhalation.

2. What is choking?

Answer: Asphyxiation is called paroxysmal severe shortness of breath.

3. What are the types of shortness of breath.

Answer: Inspiratory, expiratory.

- **4.** First aid for shortness of breath. Answer: 1. To give an exalted position.
 - 2. Free from embarrassing clothing.
 - 3. Open a window or window.
 - 4. Give oxygen cushion.
- 5. Indicate the normal number of breaths per minute. Answer: 16-20 breathing excursions in 1 minute.
- 6. Define a cough.

Answer: Cough is a protective-reflex act aimed at removing foreign bodies, mucus, sputum from the bronchi and upper respiratory tract for various diseases of the upper respiratory tract, bronchi, lungs.

7. First aid for an attack of unproductive cough.

Answer: 1. Give a warm drink (hot only with soda or half with warmed borjomi).

- 2. Put cans or mustard plasters.
 - 3. Make warm foot baths.
- **8.** What complications can a cough lead to?

Answer: 1. Syncope attacks (episodic loss of consciousness at the height of the cough).

2. Rupture of an emphysematous lung bull with the development of pneumothorax.

9. Give a brief description of pulmonary bleeding.

Answer: The appearance of blood in the sputum in the form of streaks or a large amount of scarlet blood.

- **10.** What are the emergency first aid measures for pulmonary hemorrhage? Answer: 1. Provide complete peace (calm down, prohibit talking, put to bed).
 - 2. Give a sublime position.
 - 3. Put an ice pack on the chest, allow to swallow small (0.5-1 cm in diameter) pieces of ice.
 - 4. Monitor the state of the cardiovascular system.
 - 5. Give antitussives (codeine, codterpin, etc.).
- 11. What manipulations are contraindicated for pulmonary bleeding?

Answer: 1. Put mustard plasters. 2. Place banks. 3. Apply heating pads. 4. Apply physiotherapy.

12. List the methods of oxygen therapy.

Answer: 1. Oxygen inhalation. 2. Enteral administration of oxygen. 3. Hyperbaric oxygenation.

13. Safety precautions when working with an oxygen cylinder.

Answer: 1. It is unacceptable to smoke, use open fire or electrical appliances in the room where the oxygen cylinder is located.

- 2. Heating of the cylinder is inadmissible.
- 3. A defective cylinder must not be used.

Tests-assignments to determine the initial level of knowledge of students (part 2).

- **1.** What is the procedure for disinfecting individual spittoons?
- Answer: 1. Spittoons are disinfected by boiling before giving to the patient.
 - 2. Add 74% 2% chloramine solution.
- **3.** At least once a day, the sputum in the spittoon is disinfected with a 3% solution of chloramine or 2% solution of potassium permanganate and poured into the sewer.
- **2.** How is sputum collected for general clinical analysis?

Answer: 1. In the morning on an empty stomach.

- 2. After rinsing the mouth with baking soda or furacilin (1: 5000), or 0.01% potassium permanganate solution by coughing up.
- 3. How is sputum collection for antibiotic susceptibility carried out?

Answer: For culture of sputum for antibiotic susceptibility, sterile Petri dishes are used.

- 4. List the complications of oxygen therapy. 1, 2, 3, 4, 5.
- Answer: 1. Retrolent fibroplasia. 2. Arterial hypotension.
 - 3. Stop breathing. 4. Oxygen poisoning.
 - 5. Damage to the epithelium of the airways, alveoli.
- 5. How to avoid the complications of oxygen therapy? 12.

Answer: 1. Do not use 100% oxygen concentration.

2. Limit oxygen supply time.

Questions to control the initial level of assimilation of educational material

Option 1

1. What are the respiratory organs for? What is the number of respiratory movements per minute in a healthy person?

The respiratory organs are used to carry out the life process, which consists in supporting the constant exchange of gases - oxygen and carbon dioxide - between the external environment and the body. The number of respiratory movements is normally 16-20 per minute.

2. Give a definition of external respiration.

External respiration is a gas exchange between lung and atmospheric air.

3. What pathological types of breathing do you know?

K pathological types of breathing include: breathing of Kussmaul, Biota. Cheyne Stokes.

4. What is shortness of breath?

Shortness of breath is a disorder of the rhythm, depth and frequency of breathing.

5-6. Describe inspiratory and expiratory dyspnea.

Inspiratory dyspnea is breathing with shortness of breath that develops in the presence of a mechanical obstruction in the upper respiratory tract.

Expiratory shortness of breath - this breathing with difficult exhalation occurs in bronchial asthma, pulmonary emphysema.

7. How to collect sputum for general analysis?

After rinsing the mouth, the sputum is collected in a transparent glass container and sent to the laboratory for research for general analysis.

eight. Characterize sputum by consistency and color.

Distinguish sputum by consistency: mucous, serous, purulent, mucopurulent,

bloody; by color: colorless, pinkish, rusty, scarlet, greenish, grayish.

9. How to take sputum for Mycobacterium tuberculosis by flotation?

The sputum is collected within 2g-3 days, after which it is sent to the laboratory for research on mycobacterium tuberculosis.

10. Sanitary and hygienic rules for a patient with open form of pulmonary tuberculosis. When coughing, it is recommended to cover your mouth with a handkerchief so that sputum particles do not fall on others. Do not spit phlegm on the floor, in a handkerchief, as it can be a source of infection for healthy people. Sputum should be collected in a cuspidor with a ground-in stopper. Spittoons are disinfected with 5% chloramine solution and boiling in 2% sodium chloride solution for 15 minutes.

eleven. What is the characteristic of pulmonary hemorrhage and how to distinguish it from gastrointestinal bleeding Pulmonary hemorrhage is accompanied by coughing, and gastrointestinal bleeding by vomiting, movements.

12. Providing emergency first aid for pulmonary hemorrhage.

Create complete physical and mental rest for the patient. Put to bed with the head end of the bed raised. Before the arrival of the doctor, give the patient a solution of salt (20 g per glass of water) or a 10% solution of calcium chloride (30-40 ml) to drink. In case of profuse bleeding, apply tourniquets on three limbs until a doctor arrives.

thirteen. Diet of patients with hemoptysis.

Food should be chilled, easily digestible, rich in vitamins, and should be taken in small portions in a semi-liquid form.

14. Providing emergency care to patients with pleural pain.

In case of severe pleural pain, it is necessary to administer pain relievers (analgin, novocaine blockade).

15. How to prepare a patient for a pleural puncture?

Sit the patient astride a chair, facing the back of the chair, on which to put a pillow. Place your arms bent at the elbows on the pillow. The patient's torso should be slightly turned in the direction opposite to that. where the puncture will be performed. Before puncture, treat with 5% alcohol solution of iodine, thoroughly treat with alcohol and local anesthesia of the intended puncture site.

sixteen. What should the doctor prepare for a pleural puncture?

For pleural puncture, it is necessary to prepare iodine, alcohol, sterile syringes, needles, a pleuroaspirator, 0.5% novocaine for local anesthesia, a sterile tube for sending pleural fluid to the laboratory.

Option 2

1. How to correctly count the respiratory movements?

Respiratory movements should be counted within a minute, unnoticed by the patient.

2. What is choking?

Choking is a rapidly developing shortness of breath when the patient is close to suffocating.

- **3.** What types of shortness of breath do you know (depending on the causes and mechanism)? Dyspnea is pulmonary, cardiac, hematogenous, nervous or centrogenic.
- **4.** Characterize the breath of Biota.

Correct alternation of deep breathing movements and pauses.

5. Describe Cheyne-Stokes breathing.

Correct alternation of periods of breathing with an increase and decrease in the frequency and depth of breathing with pauses.

6. Breath of Kussmaul - characterize.

Slow and deep breathing (occurs with diabetic coma, hepatic coma, bleeding into the brain).

7. What is phlegm?

Sputum - abnormal discharge from the airways and lungs when coughing.

8. How to collect sputum for bacteriological examination?

The patient should thoroughly rinse out his mouth and collect sputum in a sterile container.

9. What is the purpose of remedial gymnastics for lung diseases?

Physiotherapy. It is prescribed to restore the functions of the organism through physical

exercise. Improving breathing, remedial gymnastics prevents the development of inflammations nogo process in the lungs in patients who are on bed rest.

10. For what purposes does the patient undergo a pleural puncture? a) life-long testimony;

- b) for the purpose of diagnostics, in addition to the general analysis of the pleural fluid, the specific gravity, the total amount of protein, and the Rivalta test are examined in it. count the shaped elements, atypical cells, mycobacterium tuberculosis, etc.
- **11.** For what diseases is oxygen starvation observed?

Oxygen starvation is observed in pneumonia, bronchial asthma, pulmonary edema, emphysis, etc.

12. For what purposes is oxygen therapy prescribed?

Oxygen therapy is prescribed with the development of oxygen starvation (hypoxia).

- **13.** What physical procedures are contraindicated for hemoptysis and pulmonary hemorrhage? With hemoptysis and pulmonary bleeding, banks, mustard plasters and other physiotherapeutic methods of treatment are contraindicated.
- **14.** What is characteristic of pleural pain?

The pleural pains are worse with a deep breath. The position of the patient on the side of the lesion limits the movement of the pleural sheets and thereby reduces pain.

15. How to take sputum for atypical cell testing?

To collect sputum for atypical cells, it is necessary for the patient to rinse his mouth well, and then collect the sputum in a clean dish, after which the sputum should be urgently sent to the laboratory for research.

16. What precautions should be taken when using bottled oxygen?

Oxygen cylinders should be stored in a dry room at a temperature not exceeding $35\,^\circ$ C, in an upright position, in special nests. Protect the cylinder from jolts, impacts, falling. When opening the cylinder, it is not recommended to stand facing the stream of oxygen, as you can damage your eyesight.

Option 3

1. Describe chest breathing.

Chest breathing is most common in women. With it, the chest cavity expands mainly in the anteroposterior and lateral directions.

2. Give a characteristic of the abdominal breathing type.

Abdominal breathing is more typical for men. The expansion of the chest cavity with it occurs mainly in the vertical direction, due to the diaphragm.

3. What are the features of mixed breathing?

With a mixed type of breathing, the expansion of the chest is uniform in all directions.

- **4.** What is the vital capacity of the lungs? The vital capacity of the lungs in men is 3000-5000 ml, for women 2000-3500 ml.
- **5.** What to recommend to the patient in case of difficulty in secretion of moles?

The patient should be advised 2-3 times a day for 20-30 minutes to take such a position in bed, in which the accumulated sputum is more easily removed.

- **6.** What is the first aid to a patient with bronchial asthma in status asthmaticus? Free the patient's chest from tight clothing, give the patient a semi-sitting position in bed, increase air access to the room, conduct oxygen therapy.
- **7.** For what diseases is the cough dry?

The cough is dry with inflammation of the upper respiratory tract, inflammation of the pleura, compression of the bronchus by a tumor, a foreign body.

- **8.** Organization of work of medical personnel in the pulmonary department. Nursing staff should:
- a) often ventilate wards and treatment rooms; b) monitor

the disinfection of the spittoon;

- c) monitor the conduct of three times wet cleaning of premises with disinfectant solutions; d) strictly follow the doctor's prescription;
- e) be able to prepare the patient for endoscopic examination.
- **9.** For what diseases is the cough wet?

The cough is moist with pneumonia, tuberculosis, bronchitis, bronchiectasis, abscess and gangrene of the lungs.

10. Elements of care for patients with pleuropneumonia.

Patients with lung disease should be kept in bright, spacious, well-ventilated rooms with centralized oxygen supply. Daily morning toilet, bedsore prevention. Measurement of daily sputum production, counting breaths, determination of the Stange and Gencha samples.

11. Oxygen administration routes for oxygen therapy.

Oxygen therapy is most often carried out by inhalation. In addition, oxygen can be injected under the skin, into the pleural cavity, abdominal cavity, stomach, intestines, irrigation of wounds, oxygen baths

12. What is medical oxygen?

Medical oxygen contains 99% pure oxygen and 1% nitrogen.

13. How should you store medical oxygen cylinders?

Oxygen cylinders should be stored in an upright position, in a dry place at a temperature not exceeding 35 ° C. Smoking in the room where oxygen cylinders are stored is strictly prohibited.

14. What is the purpose of oxygen therapy?

C therapeutic ((spruce (to improve the patient's well-being, reduce cyanosis, stop shortness of breath, improve cardiac activity, normalize sleep).

15. Describe the state of asphyxia.

Asphyxia is a cessation of breathing due to a lack of oxygen.

Situational tasks and questions for the final control of knowledge.

1. A 43-year-old patient K. turned to you for help, complaining of bloody vomiting. You suspect he has stomach bleeding.

Based on what data can you distinguish between gastric and pulmonary bleeding?

Answer: Table for the differential diagnosis of pulmonary and gastric bleeding.

Clinical signs	Bleedin	g	
	pulmona ry	gastric	
The nature of the discharge of blood.	When coughing.	With vomiting.	
Blood color.	Bright red, scarlet frothy.	Dark red, colors coffee grounds.	
Admixture of food debris.	Missing.	There is.	
Anamnestic data.	Organ diseases breathing, pulmonary edema	Stomach diseases liver disease.	

2. Patient R. 52 years old is in the therapeutic department for right-sided lower lobe pneumonia. The doctor prescribed banks for the night. The nurse washed the jars and put them on a towel to drain. After 5 minutes, she put the patient to bed on his stomach and put the cans on his back for 10 minutes.

What are the mistakes made by the nurse? Answer: a) I did not wipe dry washed cans;

- b) did not lubricate the back with petroleum jelly or glycerin (to avoid back burns).
- **3.** At work in a hot shop, a 22-year-old worker S.M. suddenly developed nosebleeds. A nurse has been called from the health center. The patient is agitated, complains of weakness, dizziness, cough, nausea. Pallor of the skin appeared.

What kind of first aid should be provided to the patient?

Answer: 1. Transfer the patient to a cool room, calm him down, convince him that sudden movements, coughing, talking, blowing his nose can increase bleeding.

- 2. The patient should be seated, given a position in which there is less opportunity for blood to enter the nasopharynx.
- 3. Put on the area of the nose and bridge of the nose a bubble of ice, a lump of snow wrapped in a scarf, a scarf moistened with cold water, a bandage, a ball of cotton wool, etc.
- 4. Adequate supply of fresh air must be ensured.
- 5. If the bleeding does not stop, you can try to stop it by firmly pressing both halves of the nose against the septum. The patient's head is tilted slightly forward and possibly higher, and the nose is squeezed with force. The patient must breathe through the mouth. You need to squeeze your nose for 3-5 minutes. Blood in the mouth should be spit out by the patient.
- 6. Instead of pressing, you can tamponade the nasal passages with a dry cotton ball or a cotton ball moistened with hydrogen peroxide solution. Cotton balls are injected into the nasal passages, the patient's head is tilted forward. On cotton wool, the blood quickly coagulates and the bleeding stops.
- 7. If these measures do not stop the bleeding, you should immediately call a doctor or take the patient to the hospital.
- **4.** List the first aid methods for patients with dyspnea or dyspnea.

- 5. List the first aid methods for pulmonary hemorrhage.
- 6. List the first aid methods for an attack of unproductive cough.
- 7. Features of caring for patients with respiratory diseases.
- 8. Organization of the work of the nurse of the pulmonary department.
- 9. Features of caring for elderly and senile patients with respiratory diseases.

Situational tasks

1. Sick. 20 years old, was admitted to the clinic with severe cyanosis, repeated attacks of suffocation. Sits in bed, cannot take a horizontal position. Cough with a small amount of vitreous sputum. Breathing with sharply labored and prolonged exhalation. 22 per minute Wheezing wheezing when breathing, heard throughout.

Assignment: What type of shortness of breath does the patient have, how and in what sequence to provide her with emergency assistance?

Answer: The patient has expiratory dyspnea. It is necessary to free the patient's chest from tight clothes, heavy blankets. Give the patient a semi-sitting position in bed, increase the oxygen supply in the room, and conduct oxygen therapy.

2. A 70-year-old patient has been suffering from headaches for a long time; recently, his memory has significantly weakened. Objectively, there are tortuous vessels on the temples. The pulse is high, hard, 70 beats. in min. HELL 180-70 mm. rt. Art. Breathing is characterized by the frequency of respiratory movements, between which there are pauses with a gradual increase in respiratory movements and subsequent extinction to a complete stop.

Assignment: Draw the type of breath described graphically and name it. Under what conditions of the respiratory center does this type of breathing appear?

Answer: This is Cheyne-Stokes breath. It happens with diseases of the brain, coma, poisoning, with severe circulatory disorders.

3. Patient, 20 years old. for a long time (several years) she has been coughing but did not seek help from doctors. Suddenly in the morning, after a severe coughing attack, a large amount (300 ml) of frothy scarlet blood was released.

Assignment: Where did the bleeding come from? Provide emergency first aid (indicate sequence).

Answer: The patient has pulmonary hemorrhage. You need to put her to bed with a raised headboard, create physical and mental peace, prohibit talking. Give a strong solution of sodium chloride to drink (1 tablespoon in a glass of water) or a 10% solution of calcium chloride.

4. Patient, 19 years old. Parents suffer from pulmonary tuberculosis. During the last 3 years, the patient developed weakness, low-grade fever, cough with a small amount of sputum. Assignment: What examination of the patient should be carried out? What method is used to collect sputum to study mycobacterium tuberculosis in it?

Answer: The patient needs to examine sputum for Mycobacterium tuberculosis. Wet is collected by flotation.

5. A 60-year-old patient was admitted to the department in a serious condition with severe shortness of breath and cyanosis. There is no centralized oxygen in the department, there is only balloon oxygen.

Assignment: How to apply oxygen directly from a cylinder? List the sequence of your manipulations. When in contact with what substances does compressed gaseous oxygen ignite?

Answer: When prescribing oxygen inhalation for a long time, you can use an oxygen cylinder directly, which is installed at the patient's bedside. With the help of a regulator, oxygen under constant pressure through rubber tubes for the purpose of humidification passes through the water poured into the vessel from the Bobrov apparatus, and then enters the patient's mouth or nose. Compressed gaseous oxygen ignites on contact with oils, fats, oil.

6. During the pleural puncture, the patient turned pale and covered with sweat. Assignment: What are the nurse's emergency activities?

Answer: Inhalation of ammonia, fresh air, cordiamine or caffeine intramuscularly.

7. A patient with pulmonary tuberculosis behaves untidy: he coughs surrounded by healthy people, spits phlegm on the floor, into a handkerchief.

Assignment: Nurse Tactics?

Answer: Explain to the patient that, surrounded by healthy people, one should refrain from coughing, or cover your mouth with a handkerchief so that sputum particles do not fall on another person. It is impossible to spit phlegm on the floor or a handkerchief, as this can cause illness of the people around you. Teach the patient to use an individual spittoon.

- **8.** For a patient with exudative pleurisy, the doctor should perform a pleural puncture (diagnostic). Assignment: What instruments and medicines should a nurse prepare? Answer: Syringe 20 g, needles 7-10 cm long, 1-1.2 mm in diameter, novocaine 0.5% 5-10 g, ammonia, cordiamine, sterile test tubes 2-3 pcs.
- **9.** The patient was on strict bed rest for a long time.

Assignment: Nurse tactics for the prevention of congestive pneumonia.

Answer: Airing the room, in the absence of contraindications, turning the patient on his side, light back massage, therapeutic exercises.

10. A patient with pulmonary heart disease receives diuretics as prescribed by a doctor.

Assignment: How to determine the effectiveness of diuretic drugs?

Answer: Collect daily urine in a container every day and note the amount of fluid drunk and excreted in the medical history on the temperature sheet.

11. The patient with pneumonia has a sharp drop in temperature (from $39 \degree$ to $35 \degree$), he became covered with sticky sweat, turned pale.

Assignment: What condition did the patient develop and the activities of the nurse before the arrival of the doctor?

Answer: The patient has developed a collapse. To stop it, it is necessary to introduce cardiotonic agents, for example, cordiamine.

12. The patient has a severe form of pleuropneumonia. An admixture of blood appeared in the sputum (rusty sputum).

Assignment: Is it possible to give the patient cans and mustard plasters during this period? *Answer*: When "rusty sputum" appears, it is impossible to put cans and mustard plasters to the patient.

ABSTRACT TOPICS.

1. The main symptoms for various diseases of the respiratory system.

- 2. Emergency care for asthmatic conditions.
- **3.** Emergency care for pulmonary hemorrhage.
- **4.** Principles of caring for patients with respiratory dysfunction.
- **5.** Physiotherapy exercises for respiratory diseases and prevention of congestive pneumonia.
- 6. Oxygen therapy: indications, inhalation methods of oxygen administration.
- 7. Hyperbaric oxygenation, indications and contraindications.
- 8. Organization of work of nurses in the pulmonary department.

Control questions.

- 1. Respiratory movement counting technique.
- 2. List the main symptoms of respiratory dysfunction.
- **3.** What pathological types of breathing do you know?
- **4.** Describe the types of shortness of breath depending on the disturbances in the phases of breathing. What is the help for shortness of breath, choking?
- **5.** What is sputum, what does it testify to? Sputum collection technique.
- **6.** Oxygen therapy (give a short formulation of the method). Methodology and possible complications.
- 7. What inhalation methods of oxygen therapy do you know?
- **8.** Principles of emergency first aid for acute respiratory failure.
- 9. Principles of emergency first aid for patients with pulmonary hemorrhage.
- **10.** Features of caring for patients with respiratory diseases.
- 11. Technique and possible complications during pleural puncture.

Knowledge level control: carried out by testing practical skills, solving situational problems on the topic and test control.

TEST CONTROL.

- 1. Which of the listed research methods of the respiratory system are X-ray ones?
 - a) bronchography;
 - b) bronchoscopy; c)

fluorography; d)

tomography; e)

spirography.

- **2.**What are the characteristics of chest pain associated with pleural involvement? a) increased pain with deep breathing and coughing; b) the stabbing nature of the pain; c) the compressive nature of the pain;
 - d) increased pain when positioned on the sore side;
 - e) reduction of pain when positioned on a sore side; f)

increased pain when pressing on the chest.

- **3.** What procedures are advisable to prescribe to the patient to reduce persistent dry cough?
 - a) drainage of the bronchi with a change in body

position; b) warm alkaline drink; c) banks, mustard

plasters;

d) expectorants and antitussives; e) inhalation of oxygen.

- **4.**For what research is it necessary to accumulate phlegm within 1-3 days? a) research for the presence of atypical cells; b) research for the presence of mycobacterium tuberculosis;
 - c) sputum culture in order to identify microflora and its sensitivity to antibiotics.
- 5. What lung diseases can be accompanied by hemoptysis?
 - a) acute bronchitis;
 - b) lobar pneumonia;
 - c) bronchial asthma;
 - d) bronchiectasis
 - e) lung cancer.
- **6.** What signs of bleeding indicate pulmonary origin? a) scarlet blood, frothy; b) dark blood, clots like "coffee grounds";
- c) the released blood has an alkaline reaction; d) the released blood has an acidic reaction; e) the release of blood with coughing convulsions.
- **7.** What measures should be taken 'when a patient has pulmonary hemorrhage? a) appoint complete rest; b) put an ice pack on the chest area;
- c) introduce vicasol and calcium chloride;
- d) put cans or mustard plasters; e) apply oxygen inhalation.
- **8.** What diseases are characterized by acute respiratory failure?
- a) acute bronchitis;
- b) pulmonary emphysema;
- c) blockage of the trachea and large bronchi by a foreign body;
- d) pulmonary embolism;
- e) poisoning with narcotic substances.
- **9.** What are the characteristics of expiratory dyspnea? a) difficulty in exhaling; b) difficulty breathing;
- c) difficulty in inhaling and exhaling.
- **10.** What is the most optimal oxygen concentration in the inhaled mixture?
- a) 15-20%;
- b) 40-60% c) 75-80%; d) 95%.
- **11.** What is the purpose of moisturizing during oxygen therapy? oxygen?
- a) prevention of its unnecessary loss;
- b) compliance with safety regulations;
- c) prevention of the toxic effect of oxygen on the body.
- **12.** What is the purpose of a pleural puncture?
- a) removal of fluid from the pleural cavity for diagnostic purposes; b) removal of fluid from the pleural cavity for therapeutic purposes; c) the introduction of drugs into the pleural cavity;

- d) separation of pleural adhesions;
- e) aspiration of sputum from the bronchi and their lavage

TOPIC 11. MONITORING AND CARE OF PATIENTS WITH DISEASES OF THE BLOOD CIRCULATION. MEASUREMENT OF BLOOD PRESSURE, DETERMINATION OF THE PROPERTIES OF ARTERIAL PULSE

Target: medical deontology and ethics in caring for patients with cardiovascular diseases. To teach students the technique of measuring blood pressure and determining the properties of the arterial pulse.

Educational purpose: issues of medical deontology and ethics in caring for patients with cardiovascular diseases. Creation of a favorable psychological climate for patients with acute myocardial infarction.

Equipment of the lesson:

- 1. Patients with various manifestations of heart and vascular insufficiency.
- **2.** Riva-Rocchi apparatus (Sphygmomanometer, tonometers, phonendoscopes), patient observation sheets with graphical recording of pulse, daily urine output, blood pressure.
- 3. Table "Characteristics of diets. Fasting days ".
- **4.** Systems (sterile) for single intravenous administration of fluids. A set of drugs necessary for the provision of emergency care in various acute conditions (shock, collapse, fainting, cardiac asthma).
- **5.** Items for the care of patients with cardiovascular diseases (rubber circles, tourniquets, drinking bowls, enema accessories, camphor alcohol, oxygen installations, temperature sheets, portioners).

The student should know:

- 1. Pulse, its properties, determination technique, digital and graphic recording.
- 2. Blood pressure, technique of its measurement, digital and graphic recording.
- **3.** The main symptoms of diseases of the cardiovascular system.
- **4.** The concept of the causes of pain in the heart and first aid for them.
- **5.** Acute vascular insufficiency (fainting, collapse) and first aid for them.
- **6.** General care of patients with diseases of the cardiovascular system.
- 7. Features of caring for elderly and senile patients with this pathology.

The student should be able to:

- 1. Determine the patient's pulse, characterize it, write it down graphically.
- **2.** Measure blood pressure and interpret received data.
- **3.** Determine swelling in the legs and lower back of the patient.
- **4.** Provide first aid for acute vascular insufficiency.
- **5.** Provide first aid for acute heart failure.
- **6.** Calculate the frequency of respiratory movements and assess its nature (consolidation of skills).
- 7. Observe the patient's appearance and assess his condition, monitor the physiological functions.
- **8.** Provide first aid for pain in the heart area.
- **9.** Feed seriously ill patients (skill consolidation).
- **10.** Use a functional bed (skill consolidation).
- 11. Change underwear and bedding (skill consolidation).

- **12.** Carry out the prevention of pressure ulcers (strengthening the skill). 13. Submit the vessel, urine receiver, disinfect them (consolidate skills).
- 13. Give oxygen (reinforcement of the skill).
- **14.** Carry out subcutaneous and intramuscular injections to cardiovascular patients (consolidation of skills).

Plan and organizational structure of the lesson.

- 1. Greetings.
- **2.** The role of student attendance.
- **3.** Introductory remarks by the teacher. Target setting.
- **4.** Home assignment.
- **5.** Control and correction of the initial level of knowledge:

6.

- 1. Deontology in caring for patients with diseases of the circulatory system.
- 2. List the typical symptoms of cardiovascular disease.
- 3. Monitoring and caring for patients with pain in the region of the heart.
- **4.** Emergency first aid in case of pain in the region of the heart or behind the breastbone.
- **5.** Monitoring and caring for patients with lack of blood circulation: Acute vascular insufficiency, provision of first aid. Chronic heart failure.
- **6.** Features of caring for patients with this pathology in old age and old age.
- **7.** What is the method for determining the arterial pulse. Give his characteristics, write down graphically.
- **8.** Give a definition of blood pressure.

What is the technique of measuring it according to the Korotkov method.

Characteristics of blood pressure in a healthy person and a patient.

- **9.** Organization of the work of the nurse of the cardiology department.
- 10. Peculiarities of nutritional therapy for patients with illnesses. circulatory organs.
- **6.** Demonstration of patients with diseases of the circulatory system.
- **7.** Demonstration of practical skills: methodology for determining the arterial pulse, registering it in the observation sheet, measuring blood pressure.
- **8.** Independent work of students in the department.
- **9.** Discussion of the results of independent work.
- **10.** Control and correction of the final level of mastering the educational material. (solving situational tasks).

Control of the initial level of knowledge of students

- **1.** List the main symptoms in the pathology of the circulatory system.
 - 1. Pain in the region of the heart or behind the breastbone. 2. Palpitations, interruptions in the work of the heart.
 - 3. Dyspnea. 4. Swelling.
- 2. Emergency first aid in case of pain in the region of the heart or behind the breastbone.
 - 1. Lay the patient down and calm him down.
 - 2. Give a nitroglycerin tablet under the tongue, having previously found out how this drug tolerates.
 - 3. Put a mustard plaster on the heart area.
 - 4. If the pain does not stop within 5 minutes, call a doctor immediately.
- 3. A feature of shortness of breath in cardiac pathology.

Increased dyspnea in horizontal position and decrease in vertical position

- 4. What is the emergency first aid in case of choking in a patient with a disease of the cardiovascular system?
 - 1. Give a half-sitting position with lowered legs, calm down.
 - 2. Apply tourniquets to the limbs.
 - 3. Give oxygen.
 - 4. Call a doctor immediately.
- 5. How to apply tourniquets to the limbs correctly
 - 1. On top of a gauze napkin or towel.
 - 2. The limb should turn blue, the veins should swell, but the pulsation of the peripheral arteries should remain.
 - 3. The tourniquets are applied for 30 minutes.
- 6. List the main symptoms of fainting.
 - 1. Severe weakness, dizziness, ringing in the ears, sometimes nausea, "darkening" in the eyes, loss of consciousness.
 - 2. Pale skin, cold, clammy sweat.
 - 3. The pulse is soft and infrequent.
 - 4. Pupils constrict.
- 7. List the main symptoms of a collapse.
 - 1. Sharp pallor, collapse of visible veins, cold clammy sweat, limbs cold to the touch.
 - 2. Breathing is rapid, shallow, but not difficult.
 - 3. The pulse is fast, soft, threadlike.
 - 4. Blood pressure is sharply reduced.
 - 5. The patient is motionless, although he is conscious, it is difficult to answer questions.
- 8. First aid for fainting.
 - 1. Lay the patient so that the head is lower than the legs.
 - 2. Unbutton your clothes.
 - 3. Spray your face with cold water, give a sniff of the ammonia and rub the whiskey with ammonia.
 - 4. Rub the skin of the face and soles.
- 9. First aid for collapse.

Lay the patient down, warm with heating pads, give him strong tea, inject 1-2 ml of 10% caffeine, 1-2 ml of cordiamine under the skin, call a doctor immediately.

10. What is pulse?

Rhythmic contractions (pulsation) of the vascular wall synchronous with the work of the heart.

- 11. What is the heart rate of a healthy person? 60-90 beats per minute.
- 12. List the sites of the pulse study.
 - 1. On the radial artery. 2. Sleepy. 3. At the temporal. 4. On the thigh.
 - 5. Popliteal. 6. On the artery of the dorsum of the foot.
- 13. Pulse study stages.
 - 1. Determination of the pulse on both hands.
 - 2. Study of the properties of the arterial wall.
 - 3. Study of the properties of the pulse.
- 14. Pulse properties. 1. Frequency. 2. Rhythm. 3. Filling. 4. Voltage. 5. Height. 6. Form.

Questions to control the initial level of educational material Option 1

- **1.** Why are diseases of the heart and blood vessels considered a severe pathology of internal organs? These diseases are widespread, cause high disability and mortality among the population.
- **2.** The method of determining the pulse.

Determined by palpation: three fingers of the right hand on the radial artery in the area

the lower third of the forearm.

- **3.** Pulse characteristic. Frequency, rhythm, content, size, form.
- **4.** Method for determining blood pressure.

Measured with a sphygmomanometer, Riva-Rocci apparatus, in the elbow bend in the place of the projection

tions of the brachial artery are heard with a stethophonendoscope Korotkov's tones (the appearance of pulsation - systolic blood pressure, disappearance - diastolic).

5. Characteristics of blood pressure in a healthy person and a patient.

The blood pressure of a healthy person is 100-150 mm Hg. column - systolic, and 60-90 - diastolic (in

depending on age). Blood pressure with hypotension 100/60 mm Hg. Art. and below. Blood pressure with hypertension 160/95 mm Hg. Art. and higher.

6. What are the common symptoms in diseases of the circulatory system?

Pain in the heart, shortness of breath, dyspnea, cough, palpitations, cyanosis, wheezing in the lungs, an increase in the boundaries of the heart, heart murmurs with irregular rhythm, enlarged liver, anasar, ascites, edema in the legs and trunk.

- **7.** What is pulse pressure? Difference between systolic and diastolic blood pressure in a healthy person. It is equal to 40-50 mm Hg. st
- **8.** What does the threadlike pulse indicate? About a sharp drop in blood pressure.
- **9.** What is pulse deficit?

Difference between heart rate and pulse rate

- **10.** What is evidenced by the appearance of edema on the legs in a patient with heart disease? About cardiac insufficiency.
- **11.** Where should myocardial infarction patients be followed up in the acute period? In the intensive care unit or intensive care unit.
- 12. What foods should be recommended for a patient with heart disease.

Rich in potassium and magnesium: baked potatoes, dairy products, cabbage, dried apricots, raisins, prunes, pumpkin, black radish.

Option 2

one.Fainting (symptoms).

Weakness, darkening in the eyes, ringing in the ears, nausea, dizziness, loss of consciousness, pallor, cold sweat, threadlike pulse, a sharp decrease in blood pressure, lack of breathing or a sharp decrease in it.

2. Give the characteristic of systolic blood pressure.

Systolic pressure is the pressure at the moment of the maximum rise of the pulse wave, which occurs after the systole of the left ventricle.

3. Blood pressure measurement technique.

The patient during the measurement of blood pressure should sit or lie quietly. On the naked shoulder

Cho the patient 2-3 cm above the elbow bend impose a cuff. A phonendoscope is applied in the elbow over the area of pulsation of the radial artery. The numbers on the scale show systolic pressure (the appearance of tones) and diastolic pressure (the disappearance of tones).

4. Nutritional therapy for patients with circulatory insufficiency

Table 10. Restriction of table salt (up to 2 g per day), liquids and spicy foods. Unloading dark days, Karelian diet.

5. First aid for hypertensive crisis.

Rest, lying position, sedatives (valerian, motherwort, validol),

fresh air stupas, mustard plasters on the collar area.

6. First aid for an attack of angina pectoris.

Validol, nitroglycerin under the tongue, rest, fresh air, unfasten clothes, mustard plasters on the heart area.

7. Emergency care for pain in the heart?

Mustard plasters on the heart area, irrigation of the heart area with chloroethyl, nitroglycerin under

tongue, inhalation of oxygen and nitrous oxide.

8. Patient regimen for hypertensive crisis

Bed first, then the regime expands depending on the nature of the complications.

Follow your doctor's prescription.

- **9.** Why is inhalation of oxygen moistened with alcohol vapor prescribed for pulmonary edema? To reduce foamy sputum in the bronchi.
- **10.** Myocardial infarction patient regimen.

Bed and acute, and subacute periods of myocardial infarction. It is allowed to sit with 3-й weeks, walking from the 4th week (depending on the course of the disease and complications). 11. Acute vascular insufficiency (causes).

Mental shock, blood loss, trauma, pain, poisoning.

12. What enemas can be recommended for a patient with myocardial infarction? Hypertensive, oily, medicinal.

Option 3

1. Deontology in caring for patients with diseases of the circulatory system
Sensitivity, attention, tact when caring for bed and seriously ill patients,
increasing confidence in recovery, talking with caregivers about nutrition and the rules of patient
care.

2. First aid for fainting.

Fresh air, ammonia inhalation, unbutton clothing, position

lying on the back, the head end is below the body.

3. Methods for introducing oxygen.

Inhalation method of introducing oxygen through a mask, nasal catheters, supply of acid kind is carried out from a balloon and a centralized method. Subcutaneous and rectal methods of administration.

4. Emergency care for collapse.

Subcutaneous administration of cordiamine, caffeine, camphor, mezatone, ephedrine and glucocortis

koids as prescribed by a doctor.

5. Emergency care for shock.

Pain relievers as prescribed by a doctor: analgin, baralgin, drugs in combination with diphenhydramine or pipolfen. With a fall in blood pressure, cordiamine, mezaton, norepinephrine, rheopolyglucin, intravenous glucocorticoid hormones.

6. Emergency first aid for an attack of cardiac asthma.

Establish an inhalation supply of oxygen moistened with alcohol, create an orthopnea position for the patient, apply tourniquets on three limbs, introduce a diuretic (lasix), invite a doctor.

7. The role of a nurse in caring for patients with circulatory diseases.

Control and careful adherence to the diet, observation of physiological functions, general condition and physiological functions, the transfer of products, the implementation of medical procedures.

8. Nurse tactics in caring for patients with myocardial infarction.

Control of diet, hygiene, physiological functions, general condition.

Monitoring blood pressure and blood pressure, performing medical procedures.

9. Nutritional therapy for patients with heart failure.

Diet according to table 10, in cases of pronounced edema - table 10a, excluding oily and spicy food. The intake of salt and spicy foods is limited.

10. Equipping the cardiology department.

Control over drinking and diuresis, nutrition. Regularly count the pulse, the number of breaths per minute, measure the blood pressure and register these indicators in the temperature sheet.

11. Caring for patients with heart failure.

A specialized cardiology department should be equipped with devices for measuring blood pressure, syringes, sterile systems, cardiac monitors, defibrillators, oxygen, electrocardiographs, lockers with kits of drugs for emergency medical care.

12. Medical nutrition of the patient with myocardial infarction.

Small in quantity, fractional (6 meals a day), low-calorie diet No. 17, introduction of foods rich in magnesium and potassium, restriction of salt, spicy foods, spices.

Tests-assignments to control the initial level of knowledge

1. What is called blood pressure?

Blood pressure is the force with which blood acts on the walls of blood vessels.

2. Blood pressure indicators in a healthy person.

Normal blood pressure figures are from 100/60 to 140/90 mm Hg

- 3. What types of sphygmamanometers do you know?
 - 1. Mercury. 2. Membrane (spring). 3. Electronic.
- **4.** What is the method for measuring blood pressure according to Korotkov?
 - 1. The cuff of the sphygmamanometer is placed on the shoulder, directly on the body, so that a finger passes between it and the skin.
 - 2. Having felt the pulse of the ulnar artery, a phonendoscope is installed in the elbow bend.
 - 3. Close the air valve and begin to increase the air pressure in the cuff using a pear. The pressure should be increased until pulsation is heard, and another 20-30 mm Hg. Art. above.
 - 4. By slightly loosen the air valve screw, slowly release air, the moment when vascular sounds appear corresponds to the systolic

(maximum) pressure.

- 5. The moment of disappearance of vascular sounds corresponds to the diastolic (minimum) pressure.
- **5.** List the most common mistakes in determining blood pressure.
 - 1. The muscles of the arm are not relaxed.
 - 2. Place the cuff over the garment.
 - 3. Measurement of blood pressure is carried out once, and not 2-3 times.
 - 4. When working with a mercury sphygmomanometer, one should strive to ensure that the zero mark of the manometer is at the level of the heart.

Situational tasks

one.Determine the pulse deficit in a patient with cardiosclerosis and cardiac arrhythmias. Assignment: a) Methodology.

b) What rhythm disturbance does the pulse deficit indicate?

Answer: a) In one minute, 2 researchers simultaneously count the number of heartbeats and the number of pulse beats. The difference between them will be the pulse deficit. b) About atrial fibrillation and group extrasystole.

2. Nurse tactics in determining the threadlike pulse. Assignment: a) What does this indicate? b) What should the nurse do?

Answer: a) On acute cardiovascular failure.

- b) Urgently put the patient to bed, inhalation of ammonia vapors, call a doctor.
- **3.** The patient has burning, squeezing pains behind the breastbone, radiating to the left arm. Assignment: First aid tactics.

Answer: Nitroglycerin (1 tab. Under the tongue), rest, fresh air.

Mustard plasters on the heart area, inhalation of oxygen and nitrous oxide.

4. At the emergency room, the patient was diagnosed with acute myocardial infarction, pain syndrome persists behind the sternum.

Assignment: a) Which department should the patient be admitted

to? b) Transportation of the patient to the department.

Answer: a) Transportation of the patient to the department should be careful, on a gurney, in a supine position.

- b) In the cardiology department, in the intensive care unit.
- **5.** The patient with myocardial infarction (2nd day) got out of bed, went to the toilet, washed, sat down to dine in the dining room.

Task: a) Specify the violations in the mode.

- b) What is the danger of violation of the regimen for patients with myocardial infarction? *Answer:* a) Patients with acute myocardial infarction are shown strict bed rest. b) Death from cardiac arrest and pulmonary edema may occur.
- **6.** On the 7th day of illness, a patient with acute myocardial infarction suddenly developed an attack of suffocation, cough with foamy bloody sputum, cold sweat, weakness, cyanosis. Assignment: Tactics of the nurse before the arrival of the doctor.

Answer: a) Create an orthopnea position for the patient or with a raised head of the bed. b) Give oxygen (inhalation), moistened with alcohol vapor.

- c) Apply tourniquets on 3 limbs. d) Call a doctor immediately.
- **7.** A patient after mental overstrain suddenly developed acute vascular insufficiency (fainting). Task: a) How will blood pressure and pulse change?
 - b) Tactics of the nurse before the arrival of the doctor.

Answer: a) The pulse is not detected, it can be threadlike, the blood pressure drops to zero.

- b) Put the patient on his back, with the headboard lowered, give ammonia, fresh air, rest, the introduction of cordiamine, caffeine, mezatone intramuscularly (as prescribed by the doctor).
- **8.** The patient has an injury, an open fracture of the lower limb, loss of consciousness, respiratory arrest, pulse and blood pressure are not determined.

Assignment: Nurse tactics.

Answer: a) Artificial respiration and closed heart massage, cordiamine, caffeine, lobelia, cititon, parenterally (as prescribed by a doctor), after breathing restoration - oxygen inhalation.

9. The patient has a hypertensive crisis. BP 260/130 mm Hg. Art.

Assignment: a) What is the danger of such a state?

- b) What should be the regimen for such patients?
- c) Tactics of emergency care.

Answer: a). Stroke, myocardial infarction may develop. b) Bed.

- c) Peace, coldness to the head, warmth to the legs, fast-acting antihypertensive drugs (as prescribed by the doctor), as well as bloodletting, leeches, diuretics.
- **10.** A patient has heart failure, pronounced edema of the lower extremities, ascites. Assignment: What is the diet of such patients?

Answer: Diet number 10a and 10, with restriction of salt, fluids. Fasting days - fruit, vegetable, cottage cheese, apple.

11. A patient with myocardial infarction, after a plentiful meal, developed an acute attack of pain in the region of the heart, shortness of breath.

Task: a) Why did an attack of pain develop? b)

Nurse tactics.

Answer: a) Eating caused a rise in the diaphragm, spasm of the heart vessels and an attack of stenocardia.

- b) Nitroglycerin under the tongue, oxygen inhalation, irrigation with chloroethyl or nitromase on the heart area.
- **12.** Patient with heart disease. Bed rest for a month, pains in the region of the sacrum, heels, shoulder blades, local redness, weeping began to disturb.

Assignment: a) What are these

manifestations? b) Nurse

tactics.

Answer: a) Bedsores - trophic disorders in the skin and subcutaneous fat.

b) Improve the patient's hygiene: turn the patient several times (a day, wipe the skin of the back with camphor alcohol, put rubber circles under the places of greatest contact with the bed, make sure that there are no folds on the bed linen

Situational tasks and questions for the final control of students' knowledge.

1. Blood was taken from a young man's vein for analysis. Suddenly he turned pale, covered with cold, sticky sweat, lost consciousness and fell out of his chair.

Explain the patient's condition. What is first aid?

2. Patient M., 52 years old, complains of frequent attacks of squeezing and pressing pains behind the chest and in the left half of the chest, at the same time it hurts his left arm. Pain occurs during any lightest physical exertion, sometimes at night, during sleep, often after eating.

Think about the diagnosis. What to do during an attack.

- 3. Describe diet number 10 used in the treatment of patients with cardiovascular disease.
- **4.** How to establish the presence of edema in a patient?
- **5.** The value and method of determining diuresis in patients with damage to the cardiovascular system.
- **6.** Features of general care of patients with diseases of the cardiovascular system.
- 7. Examine the pulse, characterize it and graph it.
- **8.** Determine blood pressure according to the Korotkov method, write it down and depict it graphically.

Control questions.

- 1. Method for determining blood pressure (BP) and pulse (P), pulse properties.
- **2.** List the main symptoms in diseases of the circulatory system.
- **3.** Describe the main symptoms in acute vascular insufficiency (fainting, collapse, shock).
- **4.** Principles of first aid emergency care for acute vascular insufficiency.
- **5.** Describe the main symptoms in acute heart failure (cardiac asthma, pulmonary edema).
- **6.** Principles of emergency first aid for acute heart failure.
- 7. Caring for patients with diseases of the circulatory system.
- **8.** Features of caring for elderly and senile patients with circulatory failure.
- **9.** The main symptoms of chronic heart failure.

TEST CONTROL

- **1.** What properties of the pulse characterize the level of blood pressure? a) frequency; b) rhythm;
 - c) with rare heart contractions.
- 2. Pulse deficiency is observed:
 - a) with low blood pressure;
 - b) when the pulse rate is less than the heart rate; c) with rare heart contractions.
- 3. Pulse pressure reflects:
 - a) the difference between systolic and diastolic pressure;
 - b) simultaneous registration of blood pressure and pulse rate;
 - c) the level of pressure in the cuff, at which pulse waves begin to appear on the radial artery.
- **4.**A transient increase in blood pressure can be observed: a) during physical exertion; b) with emotional stress; c) during sleep;
 - d) with a quick transition from horizontal to vertical.
- **5.** What are the distinctive features of pain in the region of the heart characteristic of an attack of angina pectoris?
 - a) compressive character; b)
 - stabbing character; c)
 - retrosternal localization;
 - d) connection with physical stress;
 - e) duration over several hours; f) duration within a few minutes; g) spread of pain in the left shoulder, scapula;
 - h) disappearance after taking nitroglycerin.
- **6.** What features of an attack of angina pectoris give reason to suspect the development of myocardial infarction?
 - a) the occurrence of an attack of angina pectoris at rest;
 - b) the duration of the attack for several hours; c) lack of effect after taking nitroglycerin;
 - d) the occurrence of a repeated attack of angina pectoris during the day.
- 7. When an attack of angina pectoris occurs, the patient is recommended:
 - a) cessation of physical activity;
 - b) taking nitroglycerin;
 - c) setting mustard plasters on the heart area;
 - d) the introduction of adrenaline, cordiamine;
 - e) inhalation of oxygen.
- **8.** What help should be provided to a patient with pulmonary edema? a) give a half-sitting position; b) apply tourniquets on the lower extremities;
 - c) introduce blood-substituting fluids (rheopolyglucin);

- d) put mustard plasters on the heart area;
- e) give inhalation of a mixture of oxygen and ethanol vapors; f) enter diuretics and cardiac glycosides.
- **9.** What drugs should be used for cardiogenic shock? a) cardiac glycosides; b) diuretics;
 - c) blood substituting fluids; d) corticosteroids.
- 10. Chronic heart failure is characterized by:
 - a) shortness of breath;
 - b) edema;
 - c) tachycardia;
 - d) collapse;
 - e) increased blood pressure;
 - f) cyanosis.
- 11. When caring for a patient with chronic heart failure, the following are especially important: a) bed rest; b) control over the dynamics of edema;
 - c) creating an elevated headboard; d) oxygen therapy;
 - e) limiting the consumption of liquids and table salt; f)

frequent change of underwear and bed linen.

- 12. What kind of help should be given to a patient in case of fainting?
 - a) give a position with a raised headboard; b) give a position with a low headboard; c) free from embarrassing clothing; d) provide access to fresh air;
 - e) give nitroglycerin;
 - f) give a sniff of cotton wool with ammonia.

TOPIC 12: "MONITORING AND CARE OF PATIENTS WITH DISEASES OF THE DIGESTIVE ORGANS"

Educational purpose: deontological principles of caring for patients with diseases of the gastrointestinal tract, a method of collecting materials for laboratory research and preparing patients for functional research methods.

Target tasks:

- **1.** To teach students to examine the patient, paying particular attention to the state of the oral cavity, pharynx, pharynx.
- **2.** To teach how to care for patients with diseases of the gastrointestinal tract, taking into account the characteristics of the elderly and senile age.
- 3. To be able to prepare patients for the study of gastric juice, duodenal sounding.
- **4.** To teach the preparation of patients for X-ray and endoscopic examination of the gastrointestinal tract.
- **5.** To be able to provide emergency care for gastrointestinal bleeding.

Equipment of the lesson:

- 1. The graph of the logical structure of the topic.
- 2. Patients with various diseases of the gastrointestinal tract
- **3.** Tables, slides, reflecting the norm and pathology of the gastrointestinal tract.
- **4.** Probes: gastric (thick and thin), duodenal (with olive); for artificial parenteral nutrition.
- **5.** Syringes five and two grams, twenty grams, etc., Janet's syringe.
- **6.** Esmarch mug, rubber enema bulb.
- 7. Vent pipe, bed vessels.
- **8.** Sterile test tubes for bacteriological examination of the contents of the pharynx, nose, tonsils.
- **9.** Glass funnel with a capacity of about a liter.
- **10.** Table with the characteristics of the diets of the Institute of Nutrition of the Russian Academy of Medical Sciences. Fasting days.

The student should know:

- 1. Oral cavity care.
- 2. First aid for vomiting.
- **3.** Collection of vomit and sending them to the laboratory.
- **4.** Signs of gastric bleeding and first aid for them.
- **5.** Sounding of the stomach. Types of probes. Technique of execution, preparation of the patient.
- **6.** Gastric lavage. Execution technique. Patient preparation and necessary supplies. Patient care after the procedure.
- 7. Duodenal intubation. Execution technique. Patient preparation.
- **8.** Preparing the patient for X-ray examination of the stomach and gallbladder.
- **9.** Features of care and preparation for the study of patients in the elderly and senile age.
- **10.** Taking stool and sending it to the laboratory. Preparation of the patient for taking feces for occult blood.
- 11. Intestinal bleeding and first aid.
- 12. Storage, disinfection and delivery of the vessel to the patient.
- 13. Flatulence and the introduction of a gas outlet tube.
- **14.** Enemas. Types of enemas. Indications and contraindications for setting enemas.
- **15.** Technique for setting enemas. The position of the patient. Disinfection of the system and handpieces. Storage of enemas.
- **16.** Sigmoidoscopy, colonoscopy (concepts).
- **17.** Preparing the patient for X-ray examination of the intestine.
- 18. Features of care and preparation for the study of patients in the elderly and senile age.

The student should be able to:

- 1. To process the oral cavity of a seriously ill patient (consolidation of the skill),
- 2. Provide first aid for vomiting.
- **3.** Collect vomit and send to laboratory.
- **4.** Provide first aid for gastric bleeding.
- **5.** Prepare the patient for gastric and duodenal intubation.
- **6.** Flush the stomach with a tube. Provide first aid in case of poisoning.
- 7. Prepare the patient for X-ray examination of the stomach.
- **8.** Collect feces for general analysis and occult blood and send it to the laboratory.
- **9.** Help with intestinal bleeding.
- 10. Insert the gas outlet pipe.
- 11. Disinfect and deliver the ship to the patient (reinforcement of the skill).

- 12. To be able to make a cleansing, nutritious, hypertonic, drip, oil enemas.
- **13.** Prepare the patient for X-ray examination of the intestine.

Plan and organizational structure of the lesson.

- 1. Greetings.
- 2. The role of student attendance.
- **3.** Introductory remarks by the teacher. Target setting.
- **4.** Home assignment.
- **5.**Control and correction of the initial level of knowledge:

one.List the main symptoms in diseases of the gastrointestinal tract.

- 2. Monitoring and caring for patients with abdominal pain and dyspeptic disorders.
- 3. Monitoring and caring for patients with gastrointestinal bleeding.
- **4.** Gastric lavage. Patient preparation and necessary supplies. Indications and contraindications. Technique of carrying out.
- 5. Gastric intubation. Method of taking gastric juice.
- **6.** Electrometric (pH metric) method of taking gastric juice.
- **7.** Study of the secretory function of the stomach. Fractional research technique. Potential complications.
- **8.** Duodenal intubation. Patient preparation. Methodology and technique of performing the procedure, possible complications.
- **9.** Taking stool for research and sending it to the laboratory. Preparing patients for taking feces for occult blood (Gregersen reaction)
- **10.** Technique for setting enemas. Disinfection of systems and handpieces.
- 11. Technique of introducing a gas outlet tube.
- 12. Preparing patients for X-ray examination of the gastrointestinal tract.
- 13. Preparing patients for endoscopic examination.
- **14.** Laparocentesis. Methodology and technique. Complications.
- **6.** Demonstration of patients with diseases of the digestive system.
- 7. Monitoring the implementation of manipulations by students in the therapy department.
- **9.** Discussion of the results of independent work.
- **eleven.**Control and correction of the final level of mastering the educational material (solving situational problems).

Questions to control the initial level of assimilation of educational material

Option 1

- 1. What are bed vessels disinfected in? In 1% chloramine solution.
- **2.** What types of endoscopic examination are performed in the gastroenterology cabin? Esophagogastroscopy, colonoscopy, rectoscopy.
- **3.** Can a patient with sudden onset abdominal pain be given an anesthetic before seeing a doctor? No.
- **4.** What stimulants of bile secretion are used for probeless sounding of the gallbladder?
 - 1) 25 ml of 33% magnesium sulfate solution.
 - 2) 40% sorbitol or xylitol solution.
 - 3) 60 ml of olive oil.
- **5.** What does the onset of "coffee grounds" vomit indicate?

On minor bleeding from the vessels of the stomach.

- **6.** What does the appearance of tarry feces indicate? Bleeding from the gastrointestinal tract (most often from the duodenum 12).
- 7. What should you think about in the event of an admixture of scarlet blood in the stool? O bleeding from hemorrhoidal veins or from the large intestine.
- **8.** What is the patient's diet if gastrointestinal bleeding is suspected? Food must be cold, carefully processed mechanically and thermally. Excluding

there are sour, spicy foods and spices, concentrated meat and vegetable broths.

- **9.** How is esophagogastroduodenoscope disinfected? Soapy solution, water and peroxide solution.
- **10.** What is the difference between gallbladder bile obtained with duodenal intubation? "Bubble" bile is thick, dark green in color.
- **11.** How feces are collected for coprogram In a dry, clean dish.
- **12.** What conditions must be observed when examining stool for the content of protozoa? The simplest are sought in completely fresh, still warm feces.

Option 2

- **1.** List the main symptoms of diseases of the gastrointestinal tract. Pain, nausea, vomiting, heartburn, loss of appetite, weight loss, stool disturbance.
- **2.** What are the indications for gastric lavage? Food, drug and chemical poisoning, chronic gastritis in the stage of decompensation.
- **3.** What are the main symptoms of gastrointestinal bleeding? Vomiting of "coffee grounds", melena, anemia, collapse.
- **4.** List the probeless methods for studying gastric secretion. Uropepsinogen, metatest.
- **5.** What does the Boas-Ewald test breakfast consist of? 40 g of stale bread and 200 g of tea.
- **6.** List the causative agents of gastric secretion used in fractional probing. Histamine, broth, cabbage breakfast, 5% alcohol solution, caffeine, etc.
- **7.** What stimulus is used to open the sphincter of Oddi during duodenal intubation? 30 ml of 33% magnesium sulfate solution or 60 ml of olive oil.
- **8.** What is the preparation of the patient for the study of feces for occult blood? Gregersen Response: Prescribes a meat-free diet for three days. fishes. You can't chebrush your teeth (to avoid getting blood from the gums).
- **9.** What types of enemas do you know?

Cleansing, siphon, medicinal, nutritional, emulsion.

10. How is a patient prepared for a colonoscopy?

For 2-4 days, a slag-free diet is prescribed, on the eve of the study, after breakfast, they give 30-40 ml of castor oil, supper is canceled, in the evening and in the morning, 2 hours before the study, they put cleansing enemas until the bowels are completely emptied.

- **11.** What portions are received with duodenal intubation? Choledochus (portion A), vesicular (portion B), liver (portion C).
- **12.** What is the first aid for gastrointestinal bleeding?

Put the patient to bed, raising the head of the bed, put a bubble of ice on the epigastric region, call a doctor.

Option 3

1. What are the main complaints of patients with liver and biliary tract diseases?

What are the main complaints of patients with liver and biliary tract diseases?

- **2.** What color changes in feces occur with obstructive jaundice? Discoloration of feces.
- **3.** In what form should the bile obtained by duodenal intubation be delivered to the laboratory? Warm.
- **4.** What should be done to a patient who has severe flatulence? Put a gas outlet pipe, give carbolene, dill water.
- **5.** What should be done if the patient is vomiting? Provide assistance to prevent aspiration of vomit. Collect vomit for research
- **6.** Where do bacteriological smears come from? From the pharynx from the tonsils, from the nose, from the rectum.
- **7.** What should be indicated on the label of dishes with material to be sent to the laboratory? Surname, name, patronymic of the patient, date. department, ward, purpose of the study, name of the doctor.
- **8.** Is it possible to put a heating pad on a patient's stomach without a doctor's prescription? No.
- **9.** What is the purpose of medicated enemas?

Therapeutic (reduction of the inflammatory process in the colon) and introduction into the body medicinal and nutrient substances.

10. In what cases is a siphon enema prescribed?

If you suspect intestinal obstruction, in the absence of the effect of a cleansing enema and taking laxatives. to remove from the intestines products of increased fermentation and decay.

- **11.** What are the contraindications for the use of histamine in gastric secretion studies? Suspected gastrointestinal bleeding.
- 12. What are the contraindications for introducing a probe to a patient?

Bleeding, the presence of a disintegrating tumor of the stomach or esophagus, esophageal stenosis, esophageal varices.

Tests-assignments of the I level of assimilation to control the initial level of knowledge.

- **1.** What is first aid for vomiting?
- 1. If the patient's condition allows, he should be seated, if not, turn the patient's head to one sideand hang a little from the bed.
- 2. The chest and knees are covered with an oilcloth apron, the lower edge of which hangs into a basin or a bucket, if the patient is lying, a tray is placed near the mouth, an oilcloth is placed under the patient's head.
 - 3. Support the patient by the shoulders and head, slightly tilting him forward.
- 4. Rinse your mouth or wipe the mouth (if the patient is unconscious) with 2% sodium bicarbonate solution or 0.01% potassium permanganate solution.
- 5. To stop vomiting, you can give a drink of mint drops, cold water acidified with citric acid, a 0.5% solution of novocaine, and swallow pieces of ice.
- **2.** What is the emergency medical treatment for gastric bleeding?
 - 1. Create complete physical and mental peace, put to bed with your head lowered.
 - 2. Place an ice pack on your stomach. 3. Give haemostatic agents.
 - 4. Call a doctor.
- 3. What is the purpose of gastric lavage?
 - 1. For medicinal purposes. 2. For diagnostic purposes
- 4. Methods for gastric lavage.
 - 1. Ingestion 1-2 liters of warm soda water.

- 2. Using a gastric tube.
- 5. What is the principle of gastric lavage with a probe? one.

Siphon principle. One vessel is the funnel, the other is the stomach. When lifting the funnel, liquid

the bone will enter the stomach, when lowering - from the stomach into the funnel.

- 6. Accessories required for gastric lavage.
 - 1. Thick gastric tube 1-1.5 m long.
 - 2. Glass funnel with a capacity of 1 l, with a lumen of 8 mm.
- 7. Solutions used for gastric lavage.
 - 1. 2% solution of sodium bicarbonate 2. A weak solution of potassium permanganate.
 - 3. Boiled water.
- 8. Blood streaks appeared during gastric lavage. What should the nurse do in this case?

The appearance of streaks of blood indicates that the procedure should be discontinued if the flushing is not associated with acid poisoning.

9. How to carry out gastric lavage for debilitated patients?

Washing is carried out in bed. The patient is placed on its side, the head must be laid low and returned to one side so that the rinsing fluid does not flow into the larynx.

Tests-assignments of the II level of assimilation to control the initial level of students' knowledge.

- **1.** Types of enemas.
 - 1. Cleansing. 2. Siphon 3. Nutrient 4. Medicinal 5. Drip.
 - 6. Oil 7. Hypertonic 8. Emulsion
- 2. What is the purpose of cleansing enemas?

To cleanse the lower intestine from feces and gas during stool retention,

before X-ray examinations of the gastrointestinal tract and kidneys, before operations, childbirth, induced abortion, medicinal enemas.

3. The principle of action of a cleansing enema.

The action of cleansing enemas is based on the stimulation of intestinal peristalsis during milking, softening and crushing feces.

- 4... What accessories are used for setting cleansing enemas?
 - 1. Esmarch's mug 2. Sterile tips. 3. A stand for hanging Esmarch's mugs 4. Vaseline 5. Thermometer. 6. Oilcloth.
- **5.** How much water is needed for a cleansing enema and what temperature?
 - 1-1.5 liters at room temperature.
- **6.** How far is the tip inserted into the rectum? 8-10 cm.
- **7.** For what purpose are siphon enemas used?

For fast bowel movement in case of intestinal obstruction.

8. The principle of operation of a siphon enema.

Siphon method (multiple bowel lavage) - the principle of communicating co-vessels. One of them is the intestine, the other is a funnel at the outer end of a rubber tube inserted into the rectum.

- **9.** Essential accessories for siphon enemas.
- 1. Rubber tube 75 cm 1 m long and 1.5 cm in diameter with a funnel put on the outer end 2. Dishes with a capacity of 8-12 liters 3. Bucket or basin for draining water.
- **10.** What solutions are used for siphon enemas?
 - 1. A weak solution of potassium permanganate 2. 2% sodium bicarbonate solution.
 - 3. Boiled water.

eleven.At what distance is the probe inserted into the rectum with siphon enemas? 20-40 cm.

- **12.** Types of medicinal enemas. 1. Local 2. General.
- 13. For what purpose are medicinal enemas used?
 - 1. Local to reduce the inflammatory process in the large intestine.
 - 2. General for the introduction of medicinal and nutrients into the body.

- **14.** What temperature should the medicinal solution have and why?
 - 1. 38-40°.
 - 2. The low temperature causes the urge to defecate, and the medicine does not have time to absorb.

Xia.

15. Preparing the patient before a medicinal enema.

A cleansing enema is given 30-40 minutes before the medicinal enema.

- **16.** What are the main substances used in medicinal enemas?
 - 1. Painkillers 2. Sleeping pills 3. Soothing.
- 17. For what purpose are drip enemas used?

To compensate for a large loss of fluid, blood, medicinal enemas are used long-acting (drip method of administration).

- **18.** What solutions are used for drip enemas?
 - 1. Physiological 2.5% glucose solution.
- 19. How much liquid per day can you enter by drip method? How often?
 - 1. 3 liters of liquid 2. 60-80 drops per minute.
- **20.** The volume and temperature of the liquid used in the nutritional enemas?
 - 1. 200 ml 2. 38-40 °.
- 21. Nutrients used in enemas.
 - 1. 20% glucose solution 2. Meat broth 3. Milk, cream.
- **22.** What are nutritional enemas used for?

When it is impossible to introduce nutrients through the mouth and as an additional method of introducing nutrients into the body.

23. In what examination of feces is preliminary preparation of the patient necessary and what does it consist of?

When examining feces for occult blood, the patient is prepared for 3 days, excluding meat and fish products, egg dishes, green vegetables, tomatoes and medicines containing iodine, bromine and iron from the diet; on the 4th day, feces are sent for examination.

24. For what kind of fecal examination is it necessary to use special dishes?

Feces for dysentery are sent in special test tubes containing an English mixture of glycerin and alcohol, which preserves dysentery sticks well.

25. How is feces taken for bacteriological examination?

For bacteriological examination of feces, there are sterile tubes with cotton tampons, wound on a wire. The patient is placed on the right side, the buttocks are pushed apart and a cotton swab is carefully inserted into the anus, then it is also carefully removed and inserted into the test tube, without touching the edges and the wall.

26. What kind of fecal analysis is required for every patient?

An analysis of feces for the determination of helminth eggs is mandatory for every patient.

Comrade

27. What kind of X-ray examination requires special preparation of the patient? X-ray examination of gastrointestinal

intestinal tract, biliary tract, urinary tract, pelvic bones and spine.

28. What is the preparation of the patient for such an x-ray examination?

The preparation consists in thoroughly cleansing the intestines with cleansing enemas in the morning and in the evening. Compliance with a diet for 1-2 days before the study, excluding foods that cause flatulence. With flatulence - intake of activated carbon, enzymes (festal).

Questions for the final control of students' knowledge.

- 1. List the main symptoms of stomach diseases.
- 2. What are the symptoms of gastric bleeding? What is the first aid for bleeding?

- **3.** Emergency medical care for vomiting.
- **4.** Method of collecting vomit for laboratory research.
- **5.** What is the preparation of patients for gastric and duodenal intubation?
- **6.** Indications and technique for gastric lavage.
- 7. Explain the technique of taking gastric contents with a thin tube.
- **8.** Tell us about the technique of duodenal intubation.
- **9.** Tell us the method of preparing the patient for X-ray examination of the stomach.
- **10.** Features of care and preparation for research in elderly and senile patients.
- 11. What is the procedure for examining a patient with dysfunction of the digestive system?
- **12.** What are the features of caring for patients with dysfunction of the digestive system taking into account the peculiarities of the elderly and senile age?
- **13.** What is the correct way to take smears for bacteriological examination?
- **14.** How to perform gastric lavage?
- 15. How should a fractional study of gastric secretion and duodenal contents be carried out?
- **16.** How to prepare patients: for X-ray examination of the gastrointestinal tract, for endoscopic examination of the stomach and intestines?
- 17. Preparing the patient for the study of feces for occult blood.
- **18.** What is the procedure for delivering the material for research to the laboratory?
- 19. How to perform cleansing, siphon, medicinal, drip, nutritional and other enemas?
- **20.** What is the technique for installing the gas outlet tube?

Situational tasks

one.A patient with gastric ulcer developed vomiting of the color of "coffee grounds", he turned pale, blood pressure dropped, the pulse became threadlike. Assignment: What should the nurse do? Put the patient to bed, call a doctor, put a cold bladder on the epigastric region.

2. A patient with gastric ulcer is prescribed to test feces for occult blood. Assignment: Why isthis research being done? How to prepare the patient.

The study of feces for occult blood is carried out to exclude bleeding from the gastrointestinal tract. The patient is prescribed a diet that excludes meat, fish, three days before the study. It is forbidden to brush your teeth (possible bleeding from the gums can give a positive reaction to occult blood).

3. The patient developed nausea, salivation, vomiting of food.

Assignment: What should the nurse do?

Put the patient to bed on his side with his head down over the pelvis. Clean the mouth from food, masses with a spatula. Give water to a mouthwash. Call a doctor.

4. During a cleansing enema, the patient is worried about flatulence.

Assignment: What should the nurse do?

Stop the introduction of water into the rectum. Insert the gas outlet pipe. Call a doctor.

- **5.** The patient was prescribed a medicinal enema. Assignment: What kind of pre-enema is needed? You must first put a cleansing enema.
- **6.** Does a stomach ulcer patient have severe heartburn?

Assignment: What should be given to him? Baking soda or Bourget mixture.

7. A patient with gastric ulcer developed frequent liquid black stools. Assignment: Nurse Behavior?

Put the patient to bed, put the cold on his stomach, call a doctor, call a laboratory assistant to determine a general blood test, and then repeat the study of hemoglobin in an hour.

- **8.** When taking gastric juice with a thin probe, blood streaks appeared in one of the test tubes. Assignment: What needs to be done? You should definitely consult your doctor.
- **9.** A probe for duodenal intubation was introduced to the patient, but bile does not flow out of it. Assignment: What should the nurse do?

The nurse must go with the patient to the X-ray room, where behind the screen, check the location and location of the probe (olive).

10. A patient with gastric ulcer developed severe pain in the epigastric region. Assignment: What is the nurse's tactics?

The nurse must call the doctor. It is strictly forbidden to inject any pain relievers.

11. The patient was prescribed cholecystography.

Assignment: How to properly prepare the patient for the study?

Three days before the study, the patient is prescribed a diet with limited carbohydrates, carbolene, dill water. It is advisable to eat a teaspoon of honey the night before. On the day of the study, do not eat or drink water before intravenous cholecystography.

12. The patient was prescribed irrigography. Assignment: How to properly prepare him for this study?

Three days before the study, the patient is prescribed a diet with limited carbohydrates, carbolene, dill water. On the eve of the study, the patient does not eat since the second half of the day. A cleansing enema is given with a vechem. In the morning, three hours before the study, they begin to put on a cleansing enema "to clean water" (approximately 3-4).

Subject of essays (UIRS)

one. Emergency care for gastrointestinal bleeding.

- **2.** Endoscopic examination of the gastrointestinal tract. Indications, contraindications, technique.
- **3.** Types of enemas (cleansing, siphon, medicinal, drip, nutritional, oil). Indications and contraindications for their appointment. Execution technique.
- **4.** X-ray examination of the gallbladder and biliary tract with oral and parenteral administration of contrast agents. Indications and contraindications. Research preparation technique.
- **5.** Alcohol and the gastrointestinal tract.
- 6. Diet therapy for patients with stomach diseases (gastritis, peptic ulcer). Characteristics of diets.
- 7. General characteristics of the diet for diseases of the liver and gallbladder. Diet.
- **8.** Diet No. 1a indications for its use, general characteristics. Diet.
- 9. Diet No. 2 indications for its use, purpose of appointment, general characteristics, diet.

Final control of students' knowledge and skills carried out by independent implementation of the above skills, under the supervision of a teacher.

TEST CONTROL.

- 1. Distinctive signs of peritoneal pain are: a) cramping or aching character; b) sharp, cutting character; c) clear localization;
- d) uncertain localization, diffuse pain; e) increased pain during movement;
- f) pain is accompanied by tension in the muscles of the abdominal wall.
- 2. Why is persistent, indomitable vomiting dangerous?
- a) violation of the electrolyte balance of the body;
- b) dehydration of the body;
- c) involvement in the pathological process of the peritoneum;
- d) tears of the mucous membrane of the esophagus and stomach, followed by bleeding.
- 3. What measures should be taken for flatulence? a) the introduction of a gas outlet tube;
- b) restriction of foods rich in fiber and starch in the diet; c) the use of activated carbon, carminative herbs; d) gastric lavage; e) the use of enzyme preparations.
- 4. What are the symptoms of gastrointestinal bleeding?
- a) vomiting with blood clots (hematogenesis);
- b) black tarry stools (melena);
- c) discolored stools;
- d) lowering blood pressure;
- e) tachycardia;
- f) cyanosis;
- g) pallor of the skin.
- 5. In what diseases is gastrointestinal bleeding most common?
- a) inflammation of the gastric mucosa:
- b) violation of the motor function of the stomach;
- c) malignant tumors of the stomach;
- d) erosive and ulcerative lesions of the stomach;
- e) rupture of varicose veins of the esophagus and stomach.
- 6. What measures should be taken for gastrointestinal bleeding? a) ensuring complete rest; b) coldness on the stomach;
- c) the introduction of vicasol, calcium chloride;
- d) urgent X-ray and endoscopic examination of the gastrointestinal tract; e) setting a siphon enema;
- f) setting a cleansing enema; g) gastric lavage.

- 7. Contraindications for gastric lavage: a) gastric bleeding;
- b) the late period after chemical burns of the pharynx, esophagus; c) violation of cerebral circulation; d) myocardial infarction; e) narrowing of the outlet of the stomach;
- f) chronic renal failure with the development of uremic gastritis.
- 8. Why is it inappropriate to use cabbage broth as a secretion stimulator during fractional gastric intubation?
- a) the broth is contraindicated in some diseases;
- b) the broth is too weak a stimulant of gastric secretion; c) the broth is too strong a stimulant of gastric secretion.
- 9. How to check the correct position of the duodenal probe?
- a) the introduction of air through the probe;
- b) X-ray control;
- c) the introduction through the probe of the stimulator of contractions of the gallbladder.
- 10. As a stimulator of the motor activity of the gallbladder with duodenal intubation, the following are used:
- a) 33% magnesium sulfate solution; b) histamine; c) 25% magnesium sulfate solution;
- d) 40% glucose solution;
- e) heated vegetable oil; f) meat broth.
- 11. For what purpose is chromatic duodenal intubation used?
- a) for more accurate differentiation of the duodenal contents from the gastric;
- b) for more accurate differentiation of portion A from portion B;
- c) in order to have a normalizing effect on bile secretion.
- 12. Indications for cleansing enemas: a) stool retention; b) poisoning;
- c) prenatal period;
- d) ulcerative lesions of the colon;
- e) the first days after operations on the abdominal organs;
- f) preparation for X-ray and endoscopic examinations of the colon; g) intestinal bleeding.
- 13. For what purpose are hypertensive enemas used?
- a) for the introduction of fluid into the body;
- b) for emptying the intestines with atonic constipation; c) to empty the intestines with spastic constipation; d) to combat edema.
- 14. When are siphon enemas used? a) for the diagnosis of intestinal obstruction; b) for the treatment of intestinal obstruction;
- c) for the purpose of introducing fluid during dehydration of the body;

- d) before staging medicinal myism;
- e) in case of poisoning.
- 15. What tip is inserted into the rectum when setting siphon enemas? a) plastic or glass, 10-12 cm long; b) rubber, 10-12 cm long; c) rubber, 20-30 cm long;
- d) a thick gastric tube or intestinal tube.
- 16. How much rinsing fluid needs to be prepared for setting up a siphon enema?
- a) 1-1.5 l;
- b) 50-100 ml
- c) 5-6 liters;
- d) 10-12 y.
- 17. Medicinal enemas:
- a) are most often microclysters;
- b) are used to administer drugs. well absorbed in the colon;
- c) are used for local action on the mucous membrane of the straight and sigmoid intestines;
- d) are used to treat intestinal obstruction.
- 18. Features of preparation of the patient for X-ray examination of the stomach: a) be sure to fast on the day of the study; b) necessarily a cleansing enema the day before; c) a slag-free diet is mandatory.
- 19. Features of preparing a patient for cholecystography:
- a) on the day of the study on an empty stomach;
- b) necessarily a cleansing enema in the evening before and in the morning on the day of the study;
- c) be sure to take 15-17 hours before the study of iodine-containing X-ray opaque drug;
- d) necessarily "fatty" breakfast with butter before taking a radio-opaque th preparation.
- 20. Features of preparation of the patient for irrigoscopy:
- a) on the day of the study on an empty stomach;
- b) necessarily cleansing enemas the night before, as well as the morning of the study day;
- c) be sure to take 30 g of castor oil before lunch on the eve of the study;
- d) conducting a preliminary test for the tolerance of the X-ray contrast agent; e) the introduction of atropine 30 minutes before the study.
- 21. Features of preparing a patient for ultrasound examination (echography) of the abdominal organs:
- a) adherence to a slag-free diet for several days;
- b) taking adsorbents (activated carbon, carbolene) for several days before the study; c) on the day of the study on an empty stomach;
- d) a cleansing enema on the eve of the study;
- e) taking laxatives on the eve of the study

TOPIC 13. MONITORING AND CARE OF PATIENTS WITH IMPAIRED FUNCTIONS OF KIDNEYS AND URINARY TRACT

Target: deontological principles of caring for patients with kidney and urinary tract diseases and carrying out urological manipulations.

Equipment of the lesson: patient observation sheets for recording daily urine output, urine collection jars, labels, urine bags (male and female), disinfectants, soft and hard catheters, equipment for urological or therapeutic departments, phantoms.

The student should know:

- 1. Observation of urination: frequency, nature. Measurement of urine output.
- 2. Taking urine for research and sending it to the laboratory. Patient's preliminary toilet.
- **3.** The method of collecting urine for research for general analysis, according to Nechiporenko, according to Ad-dis-Kakovsky, according to Zimnitsky, for diastase, for the determination of sugar and acetone, glucosuric profile, bacteriological research.
- **4.** Urine bags. Disinfection, storage and delivery to the patient.
- **5.** Activities for urinary retention, calling reflexes to urinate.
- **6.** Bladder catheterization. Types of catheters. Technique of carrying out.
- **7.** Preparing the patient for X-ray examination.
- 8. Cystoscopy, chromocystoscopy. Bladder lavage.
- **9.** General care for critically ill patients with kidney disease.
- **10.** Features of caring for elderly and senile patients.

The student should be able to:

- **1.** Measure daily urine output and evaluate the data obtained.
- **2.** Collect urine for research and send it to the laboratory.
- **3.** To wash away the patient (consolidation of the skill).
- **4.** Catheterize the bladder with a soft catheter.
- **5.** Give the patient a urine bag, disinfect it (consolidate the skill).
- **6.** Carry out the prevention of pressure ulcers (strengthening the skill).
- 7. Provide assistance in acute urinary retention, induce a reflex to urinate.
- **8.** Prepare the patient for X-ray examination of the urinary organs.

Plan and organizational structure of the lesson.

- 1. Greetings.
- 2. The role of student attendance.
- **3.** Introductory remarks by the teacher. Target setting.
- **4.** Home assignment.
- **5.** Control and correction of the initial level of knowledge:
 - **1.** List the symptoms typical for patients with diseases of the kidneys and urinary excretion.
 - 2. Observation of urination: frequency, nature, measurement of urine output.
 - **3.** Changes in the quantity and quality of urine excreted:
 - Daily urine output the total amount of urine excreted by a person B during the day (SD = 1000-1800 ml)
 - Oliguria urine excretion 500 ml per day.
 - Anuria is a complete cessation of the flow of urine into the bladder.
 - Ishuria urinary retention due to the inability to empty the bladder.

- Polyuria an increase in daily urine output (DM more than 2 liters)
- Nocturia the predominance of nocturnal diuresis over daytime.
- Enuresis is urinary incontinence.
- **4.** Diuresis, its violations. Urinary Disorders:
 - Dysuria is a disorder of urination.
 - Pollakiuria is an increased frequency of urination. (over 6 times a day)
 - Stranguria Difficulty (painful) urination.
 - Ishuriya his delay.
 - Tenesmus is a frequent and often sterile urge.
- **5.** Emergency care for acute urinary retention.
- **6.** Taking urine for research and sending it to the laboratory. Patient's preliminary toilet.
- **7.** Method of collecting urine for research:
 - Clinical analysis of urine.
 - Urine analysis according to Nechiporenko
 - Urine analysis according to Addis Kakovsky
 - Urine analysis according to Zimnitsky
 - Folhard test
 - Urine analysis for the determination of sugar and acetone
 - Analysis of urine for diastasis
 - Glucosuric profile
 - Bacteriological examination of urine
- **8.** Bladder catheterization. Types of catheters. Technique of carrying out. Potential complications.
- **9.** Preparing patients for instrumental studies of urinary excretion. sist. 10. Monitoring and caring for patients with urinary retention.
- **eleven.** Monitoring and caring for patients with urinary incontinence.
- **12.** Features of caring for elderly and senile patients.
- **6.** Demonstration of Practical Skills: Bladder Catheterization Technique.
- **7.** Independent work of students in the department.
- **8.** Discussion of the results of independent work.
- **9.** Control and correction of the final level of mastering the educational material. (solving situational tasks).

Tests-assignments to control the initial level of students' knowledge.

- 1. List the symptoms typical for patients with diseases of the kidneys and urinary organs.
- 1. Pain in the lumbar region, radiating down the ureter, groin, genitals; pain behind the pubis and in the region of the sacrum and pain in the urethra.
 - 2. Disorders of urination.
 - 3. Changes in the quantity and quality of urine excreted.
 - 4. Swelling, mainly on the face.
- 2. What dysuric disorders do you know?
 - 1. Pollakiuria.
 - 2. Strangury.
 - 3. Ishuriya.
- **3.** What changes in the amount of excreted urine do you know?
 - 1. Polyuria 2. Oliguria. 3. Anuria. 4. Nocturia
- **4.** What is the method of collecting urine for a general analysis?

- 1. Urine is taken in the morning immediately after sleep.
- 2. Before that, it is necessary to treat the external opening of the urethra with warm water.
- 3. In women, urine is taken from the "medium portion".
- 4. Dishes for urine should be thoroughly washed and dried.
- 5. Urine is sent to the laboratory no later than 1 hour after collection.
- **5.** List the types of bladder catheters.
 - 1. Soft (rubber). 2. Elastic (semi-rigid). 3. Metallic (hard).
- **6.** What are the possible complications of bladder catheterization?
 - 1. Introducing infection.
 - 2. Damage to the mucous membrane of the ureth, bladder.
 - 3. Urethral fever.
- 7. What is the preparation of patients for X-ray examination of the urinary organs?
- 1. For 2-3 days, the patient should be transferred to a diet with the exclusion of gas-forming products.
 - 2. For flatulence, carbolene is prescribed.
 - 3. A cleansing enema is given the night before and in the morning before the study.
- **8.** What causes can cause acute urinary retention? 1, 2, 3.
 - 1. Adenoma, prostate cancer, or acute prostatitis.
 - 2. Urethral stricture.
 - 3. Urethral stones.

Final control of students' knowledge.

- **1.** Explain the method of collecting urine for laboratory research.
- 2. How to determine the daily urine output and evaluate its data?
- **3.** Explain the technique of bladder catheterization and show on the phantom.
- **4.** What are the complications of catheterization and how to avoid them?
- **5.** What types of urine bags do you know? Show how to use them (on a phantom).
- **6.** How are urine bags disinfected?
- **7.** What is the emergency treatment for acute urinary retention?
- **8.** What is the emergency treatment for renal colic?
- **9.** How to prepare a patient for an X-ray examination of the urinary organs?
- **10.** Features of general care for severely ill patients with kidney disease.

TEST CONTROL.

- 1. What violation of diuresis is called nocturia? a) a decrease in the amount of daily urine less than 500 ml; b) an increase in the amount of daily urine more than 2 liters; c) the predominance of nocturnal diuresis over daytime; d) increased frequency of urination.
- 2. For what purpose is a three-glass test used in urine analysis?
- a) clarification of the section of the urinary system (urethra, kidneys, bladder), which is the source of hematuria or leukocyturia; b) assessment of the concentration function of the kidneys; c) counting the number of formed elements (erythrocytes, leukocytes, cylinders) in urine by the
- Kakovsky-Addis method.
- 3... How urine is collected for research by the method. Nechiporenko?
- a) during the day, every 3 hours; b) within 10 hours (from evening to morning);

- c) once every 3 hours;
- d) an average portion of morning urine.
- **4.** What is the advantage of the Nechiporenko test compared to a general urine test?
- a) allows you to better assess the concentration function of the kidneys;
- b) allows you to more accurately identify the latent forms of inflammatory diseases of the kidneys (for example, pyelonephritis); c) makes it possible to better assess the effectiveness of treatment:
- d) makes it possible to identify pathogens and determine their sensitivity to antibiotics.
- **5.** What are the results of the Zimnitsky test indicate a decrease in the concentration function of the kidneys?
- a) the predominance of nocturnal diuresis over daytime;
- b) a large range of indicators of the relative density of urine in individual portions (for example, 1.007-1.029);
- c) the presence of at least one portion of urine with a relative density below 1.010; d) monotonically low relative density of urine in all portions.
- **6.** What are the features of the preparation of patients with excretory urography?
- a) on the eve of the study day, a cleansing enema;
- b) taking castor oil on the eve of the study;
- c) adherence to a slag-free diet before the study;
- d) taking a contrast agent on the eve of the study.
- 7. What is the emergency treatment for renal colic? a) an ice pack on the lumbar region; b) a heating pad for the lumbar region or a hot bath c) the use of antispasmodics (for example, baralgin); d) the use of anticholinergics (for example, atropine); e) the use of diuretics.
- **8.** What are the most common symptoms of chronic kidney disease? a) arterial hypertension; b) arterial hypotension; c) pain in the lumbar region; d) urinary retention; e) edema.
- **9.** When treating patients with chronic renal failure, it is recommended to: a) limit the consumption of sodium chloride; b) a decrease in the content of proteins in the diet; c) restriction of fluid intake:
- d) control over the level of blood pressure and edema; e) the use of antispasmodics and anticholinergics.
- **10.** What diseases and conditions are accompanied by acute urinary retention?
- a) tumors or adenomas of the prostate gland; b) renal failure;
- c) compression of both ureters (for example, by a tumor); d) after operations on the abdominal organs;

- e) the postpartum period.
- **11.** To eliminate acute urinary retention apply: a) bladder catheterization; b) cystostomy; c) subcutaneous administration of proserin;
- d) subcutaneous administration of atropine;
- e) the use of antispasmodics (no-shpy. baralgin);
- f) irrigation of the external genitalia with warm water.
- **12.** For urinary incontinence, it is recommended:
- a) using a urine bag;
- b) inhalation of adiurecrine into the nasal cavity;
- c) thorough toilet of the skin;
- d) control over the cleanliness of underwear and bed linen;
- e) applying a heating pad to the lumbar region; f) subcutaneous administration of proserin.

TOPIC 14.

FEATURES OF CARE

Severely ill and agonizing.

Educational purpose: deontological moments when caring for seriously ill and agonizing patients, carrying out resuscitation measures. Issues of medical deontology and ethics in determining death, handling a corpse, talking with relatives.

Equipment of the lesson:

- **1.** Patient observation sheets.
- **2.** Equipment of the intensive care and resuscitation department: a functional bed, vessels, urine bags, a rubber circle, disinfectants, bedding and underwear, equipment for oxygen therapy and resuscitation measures.
- **3.** Phantom "Vasya" for training in resuscitation measures.
- **4.** Kits for emergency manipulations: venesection, venipuncture. intra-arterial injection of blood and its substitutes.
- **5.** An emergency fund of pharmacological funds.

The student should know:

- **1.** General rules for the care of the seriously ill and agonizing. Their position in bed, prevention of bedsores, oral care, observation of all physiological functions.
- 2. The concept of resuscitation. Signs of clinical death.

The technique of providing first aid in case of clinical death.

- **3.** Features of the work of medical staff in intensive care units. Individual post.
- 4. Nursing during fever, delirium and hallucinations, unconsciousness.
- **5.** Caring for the dying.
- **6.** Features of caring for seriously ill elderly and senile age.
- **7.** Signs of biological death. Handling a corpse.

The student should be able to:

- **1.** Monitor the various functions of a seriously ill patient.
- **2.** Provide first aid in case of clinical death.
- **3.** To pronounce death and handle a corpse.

- **4.** Feed a seriously ill patient (strengthening the skill).
- **5.** Change underwear and bedding for a seriously ill patient (skill consolidation).
- **6.** Examine the oral cavity of a seriously ill patient and carry out processing (consolidation of the skill).
- 7. Carry out the prevention of pressure ulcers (strengthening the skill).
- **8.** Submit the vessel, urine bag (skill consolidation).

Plan and organizational structure of the lesson.

- 1. Greetings.
- 2. The role of student attendance.
- **3.** Introductory remarks by the teacher. Target setting.
- **4.** Home assignment.
- **5.** Control and correction of the initial level of knowledge:
 - **1.** Features of care for severe and agonizing patients. Their position in bed, prevention of bedsores, oral care, observation of all physiological functions.
 - **2.** Boundary states between life and death: (Terminal states)
 - Preagonal state
 - Terminal pause
 - Agony
 - Clinical death
 - 3. Signs of clinical death. First aid technique.
 - **4.** The concept of resuscitation. Describe resuscitation measures:
 - Heart massage (indirect and direct)
 - Artificial ventilation of the lungs (artificial respiration "mouth to mouth" and "mouth to nose")
 - **5.** The concept of "biological death", its statement.
 - **6.** List the main actions of the medical staff when handling a corpse.
 - 7. Resuscitation departments and principles of their work.
 - **8.** Features of the work of medical staff in intensive care units.
 - **9.** Resuscitation measures and first aid for poisoning.
 - **10.** // when drowning.
 - 11. // with heat and sunstroke, electrical injury.
- **6.** Familiarization with the equipment and work of the intensive care unit.
- 7. Independent work of students in the department.
- **8.** Control and correction of the final level of mastering the educational material.

Questions to control the initial level of assimilation of educational material

Option 1

one... What is agony?

Answer: Agony is a terminal state of the body, a reversible stage of dying with deep dysfunction of the cerebral cortex with simultaneous excitation of the centers of the medulla oblongata (respiratory failure, slowing of heart activity, loss of consciousness, convulsions).

2. What is the preagonal state?

Answer: Disorders of hemodynamics and respiration, falling blood pressure, depression of consciousness, an increase in oxygen starvation.

3. What is Terminal Pause?

Answer: The sudden cessation of breathing and the extinction of corneal reflexes last from a few seconds to 3 minutes.

4. Describe the signs of clinical death.

Answer: The period after the cessation of breathing and heartbeat, the patient's condition is reversible within 4-6 minutes.

5. What is the organization of intensive care units?

Answer: Currently, there are three main types of organization of intensive care services: multidisciplinary intensive care units, highly specialized intensive care units (burn trauma, heart attack, nephrology and intensive care and resuscitation wards at individual hospitals.

6. What is Intensive Care?

Answer: This is an urgent implementation of emergency procedures prescribed by a doctor and medical measures at a high professional level and constant monitoring of the patient.

7. What kind of resuscitation procedures should an intensive care nurse have?

Answer: Possess the technique of performing artificial respiration and chest compressions.

8. Personal hygiene of severe and agonizing patients.

Answer: In the morning: wipe your teeth and tongue, rinse your mouth, wash your face, wipe your entire body, wash the patient, regularly take measures to prevent bedsores.

9. Care items for critically ill patients.

Answer: Drinking cups, feeding probes, heating pads, enemas, rubber boat, oilcloth, rubber circle, head restraints, ice bubbles, gas pipes, oxygen cushions.

10. "Individual" nursing post. When is he appointed?

Answer: Patients who are in an agitated state (with delusions, hallucinations) and those who are in agony are assigned a post of the most experienced and highly qualified nurses.

11. Biological death statement.

Answer: Complete cessation of breathing, absence of pulse and blood pressure, pallor. relaxation of the muscles, the disappearance of the shine of the eyes, cooling of the body, dilation of the pupils and their lack of reaction to light, rigidity of the muscles of the body after 6-8 hours.

12. Physiological administration of severe and moribund patients.

Answer: Put a rubber vessel under the buttocks, an oilcloth under the sheet, immediately change the dirty linen (these patients often have paralysis of the rectal sphincter and bladder).

Option 2

one. What is the treatment of the skin of a severe bed patient?

Answer: Wipe the skin with any disinfectant solution (camphor alcohol, vodka, cologne, special solution).

2. How is a patient fed if he cannot raise his head?

Answer: A small diameter rubber tube is put on the end of the drinking cup. It is introduced into the patient's mouth, the cup is raised and slightly lowered, then the food in the volume of one sip evenly enters the mouth.

3. Prevention of bedsores.

Answer: Change of body position, timely change of linen, placing a rubber circle under the sacrum, wiping the skin with a disinfectant solution (alcohol, cologne, etc.).

4. What should a nurse be able to examine in critically ill patients?

Answer: Pulse, blood pressure, respiratory rate, determine the state of consciousness, take into account diuresis, body temperature, the nature of the skin.

5. Features of caring for seriously ill patients.

Answer: Constant monitoring of their appearance, heart rate, and blood pressure. The bed should be clean and comfortable. It is advisable to isolate patients in a single or double ward and regularly carry out prevention of pressure ulcers.

6. Feeding seriously ill patients.

Answer: You should feed often, in small portions, trying to satisfy the patient's desire within the prescribed diet, use sippy cups for liquid food.

7. Nutrition of patients 6 unconscious.

Answer: Nutrients are administered by drip: intravenously or through the rectum.

8. What is a pharmacological safety fund in the intensive care unit?

Answer: These are drugs required for intensive care: hydrocortisone, norepinephrine, insulin mannitol, hemodez, strophanthin, repoliglucin, preserved blood.

9. Caring for agonizing patients.

Answer: "Individual" nursing post, the nurse constantly monitors the patient's condition, looks after him, fulfilling all the doctor's prescriptions.

10. Hygiene regimen in the intensive care unit.

Answer: The staff completely changes clothes, puts on a mask, special slippers and shoe covers. Sinks, soap, towels are available in every room; a 0.5% solution of chloramine or diocyte 1: 5000 is used for hand disinfection. There should be bactericidal lamps, boxes with appropriate conditions for working with infectious patients.

11. Caring for seriously ill patients in a state of mental agitation.

Answer: "Individual" nursing post, near the bed - a net, strengthening the limbs, constant supervision of the nurse.

12. Change of linen, wiping the skin with camphor alcohol, measuring body temperature, drinking regimen, monitoring the pulse, blood pressure and respiratory rate, using an ice pack. Answer: Caring for severe febrile patients.

Option 3

1. What should an intensive care nurse be able to do?

Answer: A nurse must have the necessary minimum of technical and laboratory skills, be able to use anesthesia machines and oxygen installations, prepare instruments, care for critically ill patients, and, if necessary, be able to do artificial respiration and chest compressions.

2. Maintenance of the intravenous injection table in the intensive care unit.

Answer: Sterile vessel (50 ml) with isotonic sodium chloride solution or distilled water for diluting drugs, jars with sterile beads in alcohol, sterile napkins, injection needles, syringes with a capacity of 20, 10, 5, 2, 1 ml, sterile and ready to addicting drip system.

3. Principles of nursing in the intensive care unit.

Answer: The nurse should continuously monitor the patient, his condition, skin, pulse, blood pressure, respiratory rate. Clearly keep documentation by the hour, taking into account urine output and stool.

4. Where are the belongings and valuables of the deceased?

Answer: Things must be handed over to the warehouse or given to relatives against receipt,

5. Corpse handling rules.

Answer: The exact time of the onset of the patient's death is ascertained by the doctor in the history of the disease. The corpse is undressed, laid on its back with extended limbs, the lower part is tied up, the eyelids are lowered, covered with a sheet and left in bed for 2 hours. After the formation of cadaveric spots, the nurse writes on the deceased's hip the surname, first name, patronymic, medical history number, duplicating all this on the direction to the morgue, where the diagnosis and date of death are indicated. The corpse is transferred to the morgue for autopsy.

6. Rules for handling the corpses of people who died from especially dangerous infections. *Answer:* The corpses of persons who have died from cholera and plague are wrapped in sheets moistened with a solution of mercuric chloride or kcarbolic acid, then placed in tightly closed coffins; on the

the bottom of which is a thick layer of sawdust, peat or other substances capable of absorbing cadaveric secretions and burned along with the personal belongings of the deceased.

7. Deontology in the work of a nurse in the intensive care unit.

Answer: The nurse should be calm, self-possessed, neatly dressed, and her actions should be clear and confident, at a high professional level.

8. Artificial respiration "mouth to mouth" (nurse tactics).

Answer: Maximum thrown back of the patient's head. The nurse is on the side of the patient. With one hand, she squeezes the wings of his nose, with the other slightly opens her mouth by the chin, inserts an air duct into the patient's oral cavity, pushing back the tongue and epiglottis, takes a deep breath and presses her lips against the air duct, then an energetic sharp exhalation. This is done until the patient begins to breathe independently.

9. Artificial respiration "mouth to nose" (nurse tactics).

Answer: This air is blown into the patient's nasal passages. To do this, the nurse covers the patient's mouth with her palm or presses her lower lip to the upper one. Combine with non-direct massage of the heart (12-15 times per minute, one vigorous blowing for 4-5 pressures on the chest). While maintaining heart rate, the frequency of blowing should be 20-25 per minute.

10. Indirect cardiac massage.

Answer: The task is to restore blood circulation in the body, that is, to maintain blood circulation in vital organs in the absence of cardiac activity. The patient should lie on a hard surface, expose the heart area. Nurse at the side of the patient

- one palm is placed on the lower third of the sternum, the other on the first. The massage is carried out 50-60 times a minute by energetic sharp pressure on the patient's sternum (with the entire mass of his body) so that the sternum moves to the spine by 3-4 cm. The massage is effective if pulsation of large vessels appears in the rhythm of mass

soot, breathing is restored, cyanosis disappears, dilated pupils narrow.

eleven. Direct heart massage.

Answer: Direct heart massage is performed by a doctor (opening the chest, exposing the heart).

12. Artificial ventilation of the lungs.

Answer: It is indicated not only when spontaneous breathing stops, but also when it is grossly disturbed, especially in a preliminary and agonal state. The most effective and reliable method of breathing restoration is long-term artificial ventilation of the lungs with the help of an apparatus.

Tests-assignments to control the initial level of students' knowledge.

1. Indications for resuscitation (heart massage and artificial ventilation).

Answer: Statement of the state of clinical death no later than 5-6 minutes from the moment of its onset.

- **2.** What are the signs of clinical death?
 - 1. Disappearance of consciousness and reflexes (including corneal).
- 2. Stop breathing.
- 3. Lack of pulsation of the carotid arteries, cardiac arrest.
- 4. BP is not determined.
- 5. Maximum dilation of the pupils and the lack of their response to light.
- 6. Deathly pale coloration of the face.
- 7. Sagging of the lower jaw.
- 8. Involuntary urination and defecation.
- 9. Convulsions.
- 10. Decreased body temperature.
- **3.** List the stages of resuscitation.

- Answer: 1. The first stage of non-specific (pre-medical) resuscitation.
 - 2. The second stage of specific (medical) resuscitation.
- **4.** The purpose of the first (pre-medical) stage of resuscitation.

Answer: Maintain blood circulation in order to ensure the minimum need for vital organs (brain, heart) in oxygen and make it possible to restore their functions.

- **5.** Measures of the first stage of resuscitation.
- Answer: 1. Provide air access by throwing back the patient's head.
 - 2. Indirect (closed) heart massage.
 - 3. Artificial ventilation of the lungs according to the "mouth-to-mouth", "mouth-to-nose" method.
- **6.** Rules for conducting external heart massage.

Answer: 1. Place the patient on a rigid base.

- 2. The patient's belt and shirt collar are unbuttoned.
- 3. The palm of the right hand is placed on the lower third of the sternum, perpendicular to its axis, 1.5-2.5 cm above the xiphoid process.
- 4. To produce rhythmic sharp pressure on the area of the sternum (her body) at the rate of 60 per minute, pushing the sternum by 3-4 cm.
- 7. The position of the hands during external heart massage.

Answer: Arms are extended, right palm "cross to cross" on the left.

8. Artificial ventilation rules.

Answer: 1. Throw back the patient's head as much as possible, placing his hand under his neck.

- 2. To produce the maximum blowing of air into the mouth (holding the nose) or into the nose (holding the mouth) of the patient at the rate of 16 per minute.
- **9.** The ratio of the amount of massage pressure on the heart area and ventilation blows "mouth to mouth" and "mouth to nose".

Answer: 5: 1.

- 10. Signs of the effectiveness of heart massage.
- Answer: 1. Constriction of the pupils.
 - 2. Disappearance of the deathly pallor of the face.
 - 3. The appearance of a pulse on the carotid artery when pressing on the sternum.
 - 4. The emergence of new types of electrocardiographic artifacts.
- 11. Within what time the effectiveness of resuscitation measures is the highest.

Answer: Within the first 1.5-2 minutes. from the moment of clinical death.

12. Signs of effective ventilation of the lungs.

Answer: 1. Raising and lowering the chest during artificial ventilation.

- 2. A feeling of resistance in the lungs as they expand.
- 3. The sound of air coming out is heard when exhaling.
- 13. List the signs of biological death.

Answer: 1. Lack of heartbeat, pulse, breathing, pupil reaction to light.

- 2. Clouding and drying of the cornea of the eye.
- 3. Cat's eye symptom.
- 4. Coldness of the body and the appearance of cadaveric spots.
- 5. Rigor mortis.

Situational tasks

1. Name the conditions that determine the severity of the disease in which intensive observation and resuscitation measures are required.

Answer: Acute cardiovascular failure. Precomatose state. Shock. All unconscious states. States of sharp mental excitement. Feverish conditions (with high body temperature).

2. The patient has impaired breathing: noisy, large, with opening the mouth, throwing back

heads. Pulse 20 beats per minute, blood pressure - 20 mm. rt. Art., loss of consciousness, rigidity of the occipital muscles and general tonic cramps, involuntary urination and defecation. Body temperature - $35.6\,^{\circ}$ C. Describe this condition. Answer: Agony.

3. The patient lost consciousness, stopped breathing and cardiac activity within four minutes. After resuscitation measures, the restoration of cardiac activity and respiration is noted. Name the condition the patient was in for four minutes.

Answer: Clinical death.

4. How should an intensive care unit be equipped and why?

Answer: An electrocardiograph, a cardiac monitor, a defibrillator, anesthesia machine, respirators for artificial respiration, a mobile X-ray unit, a nurse's table with sterile instruments for massive blood transfusion and providing the patient with emergency resuscitation care. An inviolable fund of pharmacological agents for the provision of emergency care in a number of urgent conditions.

5. How to feed seriously ill (unconscious) patients?

Answer: Liquid and high-calorie food (milk, cream, broths, raw eggs) is given through a tube inserted through the nose or mouth, or nutritional enemas are given through the rectum.

- **6.** What examinations should a nurse carry out when caring for critically ill and agonizing patients? *Answer:* Examination of the skin, mucous membranes, measurement of body temperature, counting the pulse, respiration, measurement of blood pressure. Take into account the daily drinking regimen, diuresis, and stool.
- **7.** Nurse tactics in caring for patients with psychomotor agitation.

Answer: "Individual" nursing post, constant observation, control of pulse, blood pressure, bed fencing, fixation of limbs, feeding and control of physiological items.

8. Nurse tactics in caring for febrile patients.

Answer: Constant observation, change of linen, rubbing alcohol on the skin, personal hygiene of the patient, drinking regimen, measurement of body temperature, strict administration of drugs by the hour, control of pulse, blood pressure.

9.Signs of biological death. Who states the death of the patient?

Answer: Complete cessation of breathing, absence of pulse, blood pressure, palpitations, pallor, relaxation of the muscles, drooping down of the lower jaw, disappearance of eye shine, loss of sensitivity, cooling of the body, dilated pupils, lack of their response to light. Biological death is ascertained by a doctor.

10. Which patients are indicated for resuscitation and which ones?

Answer: Cardiac arrest - chest compressions followed by artificial respiration. Respiratory arrest - artificial respiration. Cardiac and respiratory arrest - cardiac massage and artificial respiration.

11. Corpse handling rules. Nurse tactics when handling corpses of people who died from especially dangerous infections.

Answer: Death is ascertained by the doctor and indicated in the medical history.

The corpse is stripped, laid on its back with extended limbs, the lower

jaw, lower eyelids, cover with a sheet and leave in bed for two hours. After the formation of cadaveric spots, the nurse writes on the deceased's thigh: surname, name, patronymic, medical history number, duplicating these data on an accompanying note to the morgue. Corpse carried B the morgue where the autopsy is performed. The corpses of persons who have died from cholera and plague are wrapped in sheets moistened with a solution of mercuric chloride or carbolic acid, the coffin is tightly closed and burned along with the belongings of the deceased.

12. Deontology in nursing care for severe, agonizing patients.

Answer: The nurse is the primary caregiver for these patients. Usually this is a sister, whose professional skills must be impeccable, the performing discipline is at a height and personal qualities that meet the complete dedication to the patient.

Abstract Topics (UIRS)

- 1. -Borderline states with death.
- **2.** Emergency care for conditions bordering on death.
- **3.** Care for seriously ill and agonizing patients, febrile and in a state of mental agitation.
- 4. Department of intensive observation: equipment, appointment, staff, work of medical personnel.
- **5.** Responsibilities of the nurse of the intensive care unit.
- **6.** "Biological" death and the rules for handling a corpse.
- 7. Deontological aspects in working with seriously ill and agonizing patients.
- **8.** Feeding seriously ill patients in the intensive care unit.
- **9.** Physiological administration of seriously ill and moribund patients.
- 10. Hygienic regimen when working with seriously ill and agonizing patients.

Control questions.

- 1. Describe the states bordering on death: agony, pre-agonal state, terminal pause, clinical death.
- **2.** Features of caring for seriously ill and agonizing patients. feverish and in a state of mental agitation.
- **3.** Describe the equipment of the intensive care unit.
- **4.** Describe resuscitation measures: cardiac massage (indirect and direct), artificial lung ventilation (artificial respiration "mouth to mouth" and "mouth to nose").
- **5.** The concept of "biological death", its statement.
- **6.** List the main actions of the medical staff in handling the corpse (sequentially).

Final control knowledge-skills of students is carried out by the independent implementation of newly mastered skills, under the supervision of a teacher.

TEST CONTROL

- 1. What is meant by a terminal state? a) the state of clinical death; b) the agonal period; c) the period of dying;
- d) the borderline state between life and death.
- 2. What symptoms are reliable signs of biological death? a) cessation of breathing;
- 6) cessation of cardiac activity; c) the appearance of cadaveric spots; d) decrease in skin temperature below 20 ° C;

- e) the appearance of rigor mortis.
- **3.** Contraindications for resuscitation:
- a) late periods (over 8 minutes) after the onset of clinical death;
- b) the presence of damage to organs incompatible with life;
- c) renal and hepatic coma;
- d) violation of cerebral circulation with loss of consciousness;
- e) the last stage of cancer.
- **4.** What are the most important conditions for the work of intensive care units? a) the allocation of single rooms; b) round-the-clock communication with the laboratory; c) organization of a separate entrance;
- d) the allocation of "shock" chambers and "resuscitation rooms" for resuscitation measures; e) equipping with equipment for monitoring observation, devices for artificial ventilation of the lungs, defibrillators, pacemakers.
- **5.** Why is it necessary to throw the patient's head back during artificial respiration?
- a) to make it more convenient to put the resuscitator's mouth to the patient's nose or mouth; b) to ensure airway patency;
- c) to create a good seal between the mouth of the resuscitator and the nose (or mouth) of the sufferer during artificial respiration.
- **6.** How to check the correctness of artificial respiration?
- a) during artificial inspiration, an expansion of the thoracic should occur the patient's cells;
- b) during the passive exhalation of the patient, the chest should collapse;
- c) during artificial inspiration, the patient's cheeks should be "inflated".
- **7.** What are the reasons for the lack of effectiveness of artificial respiration? a) the frequency of artificial respiration is not more than 12-14 per minute; b) lack of airway patency;
- c) poor sealing between the mouth of the resuscitator and the patient's nose;
- d) insufficient volume of air entering the patient's respiratory tract.
- **8.** When is direct cardiac massage used?
- a) with the ineffectiveness of chest compressions;
- b) in the presence of tools that allow you to open the chest cavity of the patient;
- c) if cardiac arrest or fibrillation occurred during an operation on the chest organs.
- **9.** In what position should the hands of the resuscitator be during chest compressions?
- a) maximally unbent in the wrist and elbow joints;
- b) slightly bent at the elbow joints and maximally unbent at the wrist joints; c) slightly bent at the elbow joints and somewhat unbent at the wrist joints.
- **10.** What indicates the effectiveness of chest compressions?
- a) a pulse appears on the carotid arteries;
- b) pupils are narrowed;

- c) pupils dilate;
- d) blood pressure increases;
- e) spontaneous breathing is restored.
- 11. What lesions of the respiratory system are found in the first hours of poisoning? a) suppression of the excitability of the respiratory center; b) dysfunction of the respiratory muscles; c) toxic pulmonary edema; d) toxic tracheobronchitis; e) toxic pneumonia;

f) violation of tracheobronchial patency.

- **12.** What lesions of the cardiovascular system can be observed in case of poisoning?
- a) acute cardiovascular failure associated with inhibition of vascular excitability pre-motor center and hypovolemia;
- b) acute cardiovascular failure associated with weakening of the left myocardium ventricle;
- c) toxic (painful) shock;
- d) heart rhythm disturbances.
- **13.** What therapeutic measures are advisable to carry out in case of poisoning with ethyl alcohol?
- a) gastric lavage;
- b) subcutaneous administration of cordiamine and caffeine; c) forced diuresis; d) carrying out hemodialysis; e) carrying out hemosorption.
- 14. What help is needed for poisonous snake bites?
- a) squeezing out the first drops of blood from the wound;
- b) cauterization of the bite site;
- c) clamping the affected limb with a tourniquet;
- d) cold to the site of the bite;
- e) the use of a specific anti-snake serum.
- **15.** First aid for drowning:
- a) removal of water from the respiratory tract of the victim;
- b) removing water from the stomach by introducing a probe;
- c) swinging the victim on a blanket or sheet;
- e) artificial respiration;
- f) indirect cardiac massage.
- **16.** Early signs of heatstroke: a) general weakness, weakness; b) headache; c) nausea;
- d) delirium, hallucinations, loss of consciousness;
- e) an increase in body temperature to 39-40 ° C.
- **17.** First aid for sunstroke:
- a) transfer the victim to a cool place protected from the sun b) cold compress or ice pack to the head;

c) artificial respiration and chest compressions; d) subcutaneous administration of cordiamine and caffeine.

18. First aid for electrical injury:

- a) free the victim from the action of the electric current;
- b) sprinkle the victim with earth;
- c) artificial respiration;
- d) indirect heart massage.
- **19.** Symptoms of the initial period of radiation injuries: a) general weakness, headache; b) nausea, vomiting; c) temperature rise;
- d) increased bleeding;
- e) signs of secondary infections; f) the appearance of erythema.

20. First aid for radiation injury:

- a) evacuation of the victim from the zone of radioactive contamination;
- b) complete sanitization;
- c) gastric lavage and cleansing enemas;
- d) blood transfusion;
- e) the appointment of antibacterial agents.

Required practical skills

- 1. Preparation of working chlorine-disinfecting solutions.
- 2. Determination of the patient's height and body weight.
- 3. Determination of the circumference of the chest.
- 4. Counting the number of respiratory movements.
- 5. Transportation of the patient on a wheelchair, on a stretcher-wheelchair and manually (on stretchers).
- 6. Change of underwear and bed linen for a seriously ill patient.
- 7. Submission of the vessel.
- 8. Washing the patient.
- 9. Holding the oral cavity toilet.
- 10. Instilling eye drops and rinsing the eyes.
- 11. The ability to lay an eye ointment for the lower eyelid from a tube and an eye spatula.
- 12. Instilling drops in the ears.
- 13. Holding the toilet of the ears.
- 14. Holding a nose toilet.
- 15. Instillation of drops in the nose.
- 16. Measurement of body temperature and registration of measurement data in a temperature sheet.
- 17. Statement of mustard plasters.
- 18. Placement of cans.
- 19. Placing leeches.
- 20. Setting up a local warming compress.
- 21. Cold compress setting.
- 22. Preparation and supply of a heating pad to the patient.
- 23. Preparing and serving an ice pack to the patient.
- 24. Rubbing, rubbing, lubricating the skin with a drug.
- 25. A set in a syringe of a medicinal solution from an ampoule and a vial.
- 26. Dilution of antibiotics.

- 27. Intradermal injection.
- 28. Subcutaneous injection.
- 29. Intramuscular injection.
- 30. Intravenous injection.
- 31. Filling the system for intravenous drip administration of medicinal substances.
- 32. Intravenous drip infusion.
- 33. The imposition of a tourniquet on the shoulder.
- 34. Providing first aid for sudden shortness of breath (choking).
- 35. Collection of sputum for laboratory research.
- 36. Providing first aid for hemoptysis and pulmonary hemorrhage.
- 37. Oxygen therapy in various ways.
- 38. Ability to use a pocket inhaler.
- 39. Determination of the main characteristics of the arterial pulse on the radial artery.
- 40. Measurement of blood pressure.
- 41. Registration of the results of the study of arterial pulse and blood pressure.
- 42. Providing first aid for vomiting.
- 43. Examination of the oral cavity.
- 44. Taking a swab from the throat and nose for bacteriological examination.
- 45. Conducting gastric lavage with a thick probe.
- 46. Sounding of the stomach with a thin probe. Fractional study of gastric juice.
- 47. Duodenal sounding.
- 48. Introduction of a gas outlet tube.
- 49. Setting a cleansing enema.
- 50. Setting a siphon enema.
- 51. Statement of oil and hypertensive enemas.
- 52. Setting a medicinal enema.
- 53. Determination of water balance.
- 54. Collection of urine for laboratory research.
- 55. Testing according to Zimnitsky.
- 56. Performing bladder catheterization with a soft catheter.
- 57. Conducting an indirect heart massage.
- 58. Artificial ventilation of the lungs.

Educational and methodological support of the discipline

Recommended reading:

Main literature

- 1. L. S. Zalikina "General nursing care", Medicine, 1984
- 2. V. Kh. Vasilenko, A. L. Grebnev "Propedeutics of internal diseases". Medicine, 1982
- **3.** Grebenev A.L., Sheptulin A.A., Khokhlov A.M. Fundamentals of General Patient Care. -M .: Meditsina, 1999.
- **4.** Murashko V.V., Shuganov E.V., Panchenko A.V. General patient care .- M .: Medicine, 1989

additional literature

- 1. V. A. Komarov "Ambulance". Moscow, Medicine. 1979 year
- **2.** VV Murashko "Program for general patient care in the clinic of internal diseases for students of medical and sanitary-hygienic faculties of medical institutes." Moscow, 1984, p.
- 3. S. S. Ryabov "Caring for patients with cardiovascular diseases." Leningrad, Meditsina, 1987
- 4. V. I. Pokrovsky, I. G. Bulkina "Infectious diseases with patient care and

naya epidemiology ". Medicine, 1985 with

- **5.** E. Ya. Severova with co-authors "Towards the formation of a well-grounded deontological tactics by a doctor." Clinical honey. 4, 1984
- **6.** I. Ya. Shevchenko "Laboratory methods for the study of respiratory organs." Leningrad. Medicine, 1982
- **7.** Mukhina S. A., Tarnovskaya I. I. Atlas of manipulation techniques (for medical schools). M .: Medicine, 1995.
- **8.** Mukhina S.A., Tarnovskaya I.I. General patient care (for medical schools). M .: Medicine, 1989.

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