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INTRODUCTION

Quite often the success of the treatment and outcome of the disease are determined by the quality of care. Thus, the care for the patients is an obligatory component of all treatment processes.

Timely diagnosis, proper treatment and adequate care are the necessary conditions for the recovery of the patient.

The deontological principles should be followed by all medical workers. The main object of deontology is the relations between the doctor and the patient, between the nurse and the patient, and also between the physician, the nurse, and the patient. Positive relations between the patient and the assistant physician may accelerate recovery.

ORGANIZATION OF THE WORK OF THE SURGICAL DEPARTMENT

The surgical department includes the wards, the physician's room, the rooms of the senior nurse and for medical procedures, the dining room, the bath-room, the lavement room, the room for washing and sterilization of bed-pans, dressing-room, operation-room, toilets for the patients and medical personnel.

The optimum is when 60 % of the wards in the department are with 4 beds, 20 % – with 2 beds and 20 % – with 1 bed. The wards are furnished with necessary medical equipment and furniture.

Each department is led by the manager of the department. He/she usually is one of the most experienced doctors, who organizes well-timed inspection and treatment of the patients, monitors the work of the medical personnel, is responsible for the rational use of the bed fund of the department, medical equipment and pharmaceuticals.

Physicians immediately carry out inspection and treatment of the patients and check their condition every day.

The senior nurse organizes and monitors the work of the nurses. She also keeps the medical equipment and pharmaceuticals.

Ward-nurses working on a post, carry out all prescriptions for the physicians on inspection and treatment of the patients.

The procedural nurse carries out various injections, blood drawing for biochemical analyses, blood grouping together with the physician.

The nurse-assistants provide care for the patients and the maintenance of a necessary sanitary condition in the department.

Nurse post

Nurse post is the basic place of the work ward-nurse.

The nurse post should be located not far from the wards.

There is a table with boxes for a storage of the medical documents, a case for storage of medicines, a refrigeration cabinet for the storage of perishable substances. The instruments, dressing

material, alcohol, the instruments for the patient's care (thermometers, heaters, cupping-glass) are separately kept.

The nurse post must be provided with a telephone.

The post nurses maintain the following documents: medication charts, temperature sheets, diet-sheets, register «moving of the patients in the department» (admission to hospital and discharge from the hospital).

ORGANIZATION OF THE WORK OF THE ADMISSION DEPARTMENT

The patients, directed to hospital, first of all are admitted to the reception-ward. The patients are received and registered there, with the appropriate medical documentation, the medical examination with an establishment of character and gravity of disease, determination of the department for the subsequent hospitalization of the patients, giving them if necessary an emergency medical care with cleansing.

The admission department should have a waiting room, registration room, rooms for examination of patients, a room for special medical procedures and a room for sanitary preparation of the patients.

The patients are admitted to hospital in several ways:

- according to the plan with permit for hospitalization from the polyclinic;
- by the emergency;
- independently.

The patient's name and other personal data are recorded in the admission department, and then he is examined by the physician.

If the patient is in a critical condition or even unconscious (hemorrhage, shock, coma, dangerous cardiac arrhythmia) the patient is not questioned, nor is given any special sanitary treatment. He is delivered immediately to the resuscitation or operation room, or a specialized department where the patient is given the necessary medical aid.

The case history is filled in for every patient admitted to the hospital. When recording a case history, the patient reports his name, age, address, and the address of his relatives. The date and time of admittance to the hospital are also registered in the case history. All these details are also recorded in a special admittance journal.

The nurse records the patient's personal data on a special chart, then the patient's height and weight are measured. The patient is given a superficial examination for possible pediculosis or signs of infection diseases, and the body temperature is measured. All findings are recorded in the case history and the nurse accompanies the patient to the physician and then gives him sanitary treatment. Finally, the nurse accompanies the patient to the medical department.

The examination of the patient includes not only measuring his height and weight but also the girth of the chest, the muscular strength (dynamometry), and respiratory function (spirometry).

The *height* of a patient is measured by a wooden or metal graduated plank fixed in a floor-mounted base.

A horizontal plank slides freely along the vertical plank to read the height. In order to measure the height of a person, he is asked to stand barefoot on the floor plate and to take an erect position so that his back is pressed against the vertical plank; the head should be in a position where the upper edge of the external auditory meatus is level with the outer angle of the eye.

The sliding horizontal plank is then lowered to come in contact with the patient's head and fixed in this position. The lower edge of the sliding plank reads the height.

The normal height of males varies from 165 to 180 cm and of females – from 155 to 170 cm.

Weight is measured on a special medical balance.

Weighing should be done in the morning after defecation and urination.

Normal weight can be calculated approximately by measuring the person's height and subtracting 100.

The patient usually loses weight with many diseases, especially those associated with malignant new growth, tuberculosis,

acute infections, and gastrointestinal diseases. Patients with edema gain weight due to retention of moisture in the tissues.

The girth of the chest is measured by a tape passed under the angles of the shoulder blades on the back and across the 4th rib of the chest. The girth should be measured with hanging hands freely at the patient's sides. The measurements are taken at the height of inspiration and expiration.

Spirometry is the method for determining the respiratory volumes of the lungs, which is necessary for assessing the external respiratory function. The apparatus used for this purpose is called a spirometer. The patient is asked to inhale using maximum effort and then (holding the nose) to exhale the air into the apparatus through the mouth-piece. The mouth-piece should be washed with soap and water and kept in a sterilizer.

Dynamometry is measuring muscular force using a dynamometer. The patient is asked to squeeze the dynamometer with maximum force: the pointer indicates the muscular strength in kilograms.

SANITARY AND HYGIENIC TREATMENT OF PATIENTS

The amount of sanitary treatment depends on the patient's condition. If the condition of the patient allows it, he receives a shower or a bath. The patient takes off the clothes in the examining room where he is prepared for the bath. Money and valuables are registered separately by the senior nurse of the admission department.

A bath is prescribed to clean the patient's skin from dirt and sweat.

A bath is not recommended for patients with skin diseases, wounds, and for those in a critical condition such as: hypertonic crisis, acute myocardial infarction, acute disorder of a cerebral circulation, tuberculosis in an active phase, acute surgical pathology. In such cases the patient's skin is rubbed with a tampon, moistened

by warm water with soap, then wiped with a dry tampon; the nails of the patients are short cut.

The bath should first be washed with hot water and soap and if the previous patient had a skin or infections disease, the bath should be disinfected.

The patient should be given a clean sponge.

In order to prevent the water from cooling, the bath should be filled immediately before use. To prevent steaming, the bath should first be filled with cold water and then hot water added to obtain the required temperature, which is measured by a thermometer in a wooden frame.

The water temperature in the bath should be 36–37 °C, and the ambient air, 25–28 °C.

The head is first washed, then follow the body and the legs. The bath takes 20–25 minutes.

If in the patient's condition it is not permitted taking a bath, he is given a shower.

The preparations are the same as for a bath. The shower should be taken for 5–10 minutes.

In detection of *pediculosis* the special cleansing of the patients will be carried out. Pediculosis is infestation with lice. Lice are associated with poor hygiene. Lice live on the skin, attaching their eggs (nits) to the hair. Itching and scratching are a response to lice bites. Pediculosis capitis, pediculosis pubis, clothes lice are differentiated.

There are some ways for dealing with *pediculosis capitis*. Usually the hair is oiled with a mixture of vegetable oil with kerosene and the head is covered with the wax-paper and a triangular head scarf for about 8–10 hours. Pediculosis capitis is treated with gamma benzene hexachloride. After that the head is carefully washed with warm water with soap. For removal of nits the hair is repeatedly combed by fine comb with cotton moistened in hot 10 % solution table vinegar.

For destruction of *pediculosis pubis* the hair section of the affected areas (moustache, beard, brow, eyelash or armpit) is shaved

off. Apply the medication to the involved area and leave it on the body for 12 to 24 hours. Then bathe the person thoroughly with soap and water.

In detection of *clothes lice* – washing of the patient with soap and water, destruction of insects in linen, clothes, footwear.

Scabies may be treated with complete bathing, application of topical medication, and washing linen and clothing in very hot water.

TRANSPORTATION OF THE PATIENTS

The type of transportation is defined by the physician.

The patients in a satisfactory condition are transported to the department on foot accompanied by a nurse or nurse-assistant.

Weak patients, disabled persons, elderly patients are transported with a special arm-chair, wheel-chair.

Basic demands to organization of a sanitary regimen in hospital

According to hygiene requirements, not less than 7 m² should be allotted per patient in the common ward. The optimum beds number in a ward is 3 to 5. Patients in critical conditions should be placed in separate wards with private bathrooms.

Rooms should be aired 2 or 3 times a day during the cold season, while in summer the windows should be kept permanently open. Heating should be organized so that it fits the optimal requirement for people in buildings – in winter time +20 °C and in summer time 23–24 °C.

Beds in the room should be spaced at a minimum of 1 meter apart, which is necessary to give convenient access by the medical personnel for examining the patient, and for various procedures. Critical patients should be placed in adjustable beds on which the patient can be fixed in any position that might be required.

Cleaning hospital premises

Floor material should be suitable for repeated cleansing with a wet rag. Glazed ceramic tile should be used to cover the walls in the operating room and rooms intended for various procedures.

The cleaning of the wards will be carried out 2 times per day, and also in case of need. The wiping down of the dining room will be carried out after each meal time. The general cleaning of all premises will be carried out at least once a week.

Regimen for a hospital

07.00	Time of getting up
07.00 – 07.30	Temperature taking
07.30 – 08.00	Morning toilet
08.00 – 08.30	Dispatching medicines
08.30 – 09.30	Breakfast
09.30 – 12.00	Physician's rounds
12.00 – 14.00	Carrying out medical orders
14.00 – 14.30	Dinner
14.30 – 16.30	Afternoon rest
16.30 – 17.00	Temperature taking
17.00 – 17.30	Tea
17.30 – 19.00	Visiting time
19.00 – 19.30	Dispatching medicines
19.30 – 20.00	Supper
20.00 – 21.30	Leisure time
21.30 – 22.00	Evening toilet
22.00 – 07.00	Sleep

Personal hygiene of the patient

Observing personal hygiene and cleanliness of the wards and the patient's bed promote effective treatment.

Periodic changing of bed lines promotes patient comfort and prevents skin breakdown.

We can change the lines by 2 methods.

Change of body linens for the seriously ill patient

To do this, first of all, a nurse places her hands under the patient's back, then pulls up the edge of patient's shirt to the nape, then takes it out over the head and releases the patient's hands from the sleeves. If one of the patient's hand is damaged, the healthy hand

first is released. The shirt is first put on the damaged hand. Then the shirt is put over the head in the direction of a sacrum of the patient.

Placing the bedpan and urinal

A *bedpan* is used by the female patient for defecation and urination and by the male patient only for defecation; a *urinal* is used by the male patient for urination.

After using the bedpan it is necessary to clean the anal and perianal area with a damp washcloth to dry well with a towel to prevent irritation and infection.

Contents of the bedpan or urinal are emptied into the toilet, rinsed with cold water, then disinfected with 2 % sol. Chloramine or 0.5 % lime chloride. The dry bedpan is returned to the patient's bedside or is kept in the special room.

Skin treatment

Depending on the patient's overall condition and duration of hospitalization, he may have a complete bath at least once a week or partial bath daily.

Skin breakdown (pressure ulcers bedsores) and their prophylaxis

The decubitus are usually developed in those areas, where a muscle tissue is not present or it is present in a very small layer.

Common sites include the sacrum, coccyx, ischial tuberosities, and greater trochanters. Other common sites include the skin over the vertebrae, scapulae, elbows, knees, and heels in bedridden and relatively immobile patients.

Successful pressure ulcer treatment involves relieving pressure, restoring circulation, and – if possible – resolving or managing related disorders.

Preventive measures include ensuring adequate nourishment and mobility to relieve pressure and promote circulation.

The prophylaxis of skin breakdown is provided by the constant control of the condition of the bed linen and of the patient linen. It must be clean, without ridges and seams. Special rubber circles (inflate weakly, that easily change form with the movements

of the patient) or special rubber mattresses consisting of several chambers are laid under the patient.

The position of the patients is regularly changed by turning them in the bed 8–10 times per day. It is necessary to wash skin of the patient with room-temperature water 2–3 times a day, to rub him with camphor alcohol or other alcohol solution and to powder with Talcum.

Several stages are distinguished in the development of skin breakdown:

- skin is getting pale;
- then it reddens with occurrence of cyanotic maculae;
- a bubble appears, then the epidermis is exfoliated with the development of the necrosis of a skin, hypodermic tissue, fascia.

Skin breakdown is frequently complicated by a concomitant infection.

When the skin becomes pale all prophylaxis measures must be increased.

When the skin becomes hyperemic, it should be treated with a 10 per cent camphor spirit twice a day, and then with a moist towel; the lesion should be irradiated by a quartz lamp and the condition of the skin closely observed.

If bedsores have developed, they should be treated with a strong solution of potassium permanganate with subsequent application of sintomycin, Vishnevsky or other liniment.

Necrotized tissues must be removed with surgical method.

Hair care

Hair care includes combing, brushing, and shampooing. Combing and brushing stimulates scalp circulation, removes dead cells. Shampooing removes dirt and old oils and helps prevent skin irritation.

Frequency of hair care depends on the length and texture of the patient's hair, the duration of hospitalization, and the patient's condition. Usually, hair should be combed and brushed daily, and shampooed according to the patient's normal routine. Typically, no more than 1 week, or perhaps 2, should elapse between washings.

If bath is not recommended for the patient, his hair should be washed in his bed.

The washed hair should be rinsed, dried thoroughly, and combed.

Mouth care

Patients who are unable to take care for their mouths should be assisted: their teeth, the gums, and the tongue should be cleansed by a cotton wool pad wet with a 3–4 per cent solution of boric acid, a weak potassium permanganate solution, baking soda solution or warm boiled water. Inflammation develops in the mouth, medicinal preparations should be applied or the mouth should be irrigated.

Eye care

Use of natural tear products can prevent problems in the elderly population.

Although eye care isn't a sterile procedure, asepsis should be maintained as much as possible.

Patients who are unable to care for their eyes should be assisted. To that end it is necessary to take: a sterile kidney shaped basin, sterile gauze balls, a special solution, if necessary some medicines and pipette.

To prevent cross-contamination it is necessary to use a fresh cotton ball for each wipe until the eye is clean.

In order to remove purulent discharge from the eyes, a 3 per cent boric acid solution, rivanol, or a weak potassium permanganate solution are used from a rubber bulb or by applying a piece of gauze.

If the eyes are affected by an inflammatory process, medicinal preparations should be used or ophthalmic ointments applied.

When instilling eye drops, the nurse pulls down the lower eyelid with the left hand and asks the patient to look upward. Using an ophthalmic pipette, two drops are expressed on the lower conjunctiva, one after another. The medication is never dropped on the cornea. When the patient shuts the eyes, excess solution is expelled from under the eyelids. It should be absorbed by a cotton ball. The pipette should be rinsed and kept closed until the next use.

Ophthalmic ointment should be applied to the eye using a glass spatula. The patient is asked to look up, his lower eyelid is pulled down using a moist cotton wool pad, and the ointment is transferred from the spatula end onto the inferior conjunctiva.

Ears care

The patient should clean his ears during his morning toilet.

Debris in and around the ears can lead to ulceration and infection. The ear care takes place with their regular washing with warm water and soap, and cleaning of the ear canal with special cotton swabs.

The patient sits with his side to the nurse and to the source of light. A kidney-shaped basin is held by the patient under the ear auricle. Using her left hand, the nurse pulls the ear up and back, and introduces the end-piece of the syringe into the external meatus with her right hand. Water at a temperature of 36–37 °C is discharged with force in small portions.

The jet should be directed onto the superior-posterior wall of the meatus. The ear should then be dried by cotton wool.

If necessary, medicinal preparation should be instilled into the external auditory canal. The person should be in a sitting position and incline his head in the direction of his healthy ear. The ear lobe should be pulled down by the left hand, and the drops instilled by the right hand.

The ear and external auditory canal are not considered sterile cavities. Therefore we must use sterile solutions at body temperature. In order to prevent the spontaneous flow of the fluid from the ear, the patient should keep his head inclined for 15–20 minutes. The ear should then be wiped dry by sterile cotton wool.

Nose care

Adequate hygiene improves comfort and function of the nose. Liquid nasal secretions are usually removed by blowing the nose. Dry, hardened secretions are usually manually removed.

Some people may need help to clear congestion and protect nasal mucosa. External crusted secretions can be removed with a cotton-tipped applicator moistened with water or normal saline.

The nose is not considered a sterile cavity. Therefore, a clean technique is adequate for the instillation of nose drops. The patient must be in a sitting position, with the head resting back on a pillow. Using a soft dropper, carefully instill the prescribed drops into the nostrils.

To prevent contamination, avoid touching the nasal mucosa with the dropper tip. Instruct the person to keep the head tilted back for several minutes to maximize therapy.

Perineal care

Perineal care, including the external genitalia and the anal area, should be performed during the daily bath and, if necessary, at bedtime and after urination and bowel movements. The procedure promotes cleanliness and prevents infection.

Washing should be done with a weak (1:5 000) potassium permanganate solution. The woman should assume a supine position with her legs flexed and the thighs set apart. A bedpan is placed under the pelvis. Using forceps and cotton wool, the genitals are washed with a jet of the disinfectant solution. The cotton ball should be moved from the genitalia to the anus to prevent intestinal organisms from contaminating the urethra or vagina.

We must use only one washcloth for one movement. The external genitalia are then dried by a dry cotton wool pad.

NUTRITION OF THE PATIENTS

Meals should be regular and of good quality. The amount of food should be moderate, while the food itself as varied as possible. The daily diet of a healthy individual should include the following: about 150 g of protein, 100 g of fats, 400–500 g of carbohydrates, 1 500–2 000 ml of liquid, about 10 g of table salt, and the appropriate quantity of mineral substances (potassium, calcium, iron, zinc, etc.); the food should also be rich in vitamins.

During hospitalization, most people receive the general diet.

Diet should differ depending on the disease. There are 15 therapeutic diets. Food is delivered to the dining room or directly to

the ward. Walking patients should have their meals at the dining room.

Critical patients should be assisted in their meals. Weak patients should be helped to assume a convenient position so as not to become tired during meals. If the patient is unable to sit up in bed, he should be assisted into a semi-sitting position in an adjustable bed. His neck and chest should be covered with a napkin. Bedridden patients may be fed from special tables. Asthenic patients should be fed by a nurse in small portions. Solid food should be cut into small pieces or crushed. Special cups with a spout are used to give liquid food and drinks.

For persons in good nutritional status but with a temporary inability to absorb nutrients, solution with amino acid and a low concentration of glucose may be administered for short periods through peripheral veins (PPN – peripheral parenteral nutrition).

Total parenteral nutrition is the intravenous provision of total caloric needs, including both amino acids for protein building and lipid emulsions and high concentrations of glucose for calories.

Patients are sometimes given nutrients by enema. A nutrient enema is done after evacuation of the rectum with a cleansing enema. Warm solution (36–40 °C) of a 5 per cent glucose and 0.85 per cent sodium chloride solution is administered with enema. The solutions should be given 3–4 times a day in a dose from 100 to 200 ml in each enema.

Characteristics of the diets in some diseases

Diet in the treatment of liver and gall bladder disease (Diet 5)

Alcohol is not allowed.

Dietary measures include:

- 1) a basic high protein diet, if liver damage is not severe;
- 2) a low protein diet when liver damage is severe.

Because the liver plays a major role in protein metabolism, compromised liver function causes increased blood ammonia levels and coma can result;

- 3) sodium restriction to 1 000 to 2 000 mg daily to reduce fluid retention when edema or ascites is present;

4) a soft diet if esophageal varicose (enlarged veins in the esophagus) develop. Soft foods help to prevent rupture of these blood vessels.

Low fat diets have traditionally been prescribed for people with gall bladder disease. The basis for this recommendation was that fat in the intestine causes the gall bladder to contract and therefore causes pain.

Diet in the treatment of kidney disease (diet 7)

This diet is low in protein, sodium, and potassium. In addition, fluid intake is restricted.

Diet in the treatment of cardiovascular disease (Diet 10)

- 1) restrict fat intake to no more than 30 per cent of total calories in the diet;
- 2) restrict cholesterol intake to less than 300 mg/day;
- 3) cook with liquid vegetable oils and margarines;
- 4) use nonfat milk and nonfat milk products;
- 5) eat only two or three egg yolks per week, including those used in cooking.

Congestive Heart Failure. The diet primarily involves mild, moderate, or severe sodium restriction, depending on the amount of edema.

*Diet in the treatment of metabolic and endocrine disorders
(Diet 9)*

The diabetic diet is one of the essential components in the control of diabetes. Methods of dietary management differ from clinic to clinic. Generally, however, the emphasis is on regulation of carbohydrate and fat intake in order to avoid large fluctuations in serum glucose levels.

THERMOMETRY

In physiological conditions temperature of a body of healthy persons changes within the limits of 36.4–37 °C. Body temperature is usually about 0.6 °C lower in the early morning than in the late afternoon and early evening.

Average normal temperature standards for healthy adults at various body sites

Axillary	36.5 °C
Oral	37 °C
Rectal	37.5 °C

A patient's temperature should be taken to reveal possible fever. It should be remembered, however, that an elevated temperature does not always correspond to the gravity of the patient's condition.

Types of thermometers:

- 1) mercury;
- 2) electronic;
- 3) chemical.

Measuring body temperature in the hospital will be carried out in an axilla (armpit) by the Glass medical maximum thermometer. It is necessary to shake it until the mercury line reaches at least 36 °C.

Glass thermometers are generally calibrated in either degrees Centigrade, abbreviated C. The range is approximately 42.2 °C. The degrees on a thermometer using the Celsius scale are subdivided into gradients of 0.1.

Before giving the thermometer to the patient it should be wiped dry. The thermometer should be kept in the armpit so that the mercury bulb is in close contact with the skin on all its sides. The thermometer should be kept in the armpit for about 10 minutes.

After taking the temperature, the thermometer should be washed thoroughly in warm water and then disinfected in some disinfectant solution (2 % solution of the chloramine) not less than 10 minutes.

After disinfection the thermometer is rinsed with water, then is dried and returned to the storage receptacle. Thermometers should be kept in a glass containing cotton wool to prevent their breakage.

The temperature is usually taken two times a day at hospitals. The first measurement is done at 07.00–09.00 and the second at

17.00–19.00. The findings are recorded in a temperature chart, where the morning and evening temperatures are designated.

Many diseases have their specific temperature curves.

The elevation of body temperature over 37 °C in adults is called fever.

Fever is a common symptom of illness.

Elevated temperature is characterized as follows: temperatures from 37 to 38 °C are called subfebrile, from 38 to 39 °C – moderately high, from 39 to 40 °C – high, and over 40 °C – very high. Temperatures over 41 °C and 42 °C are called hyperpyretic and are dangerous to the patient's life.

Variations of temperature during the day determine the type of fever. The following main types of fever are differentiated.

1. Constant fever (*febris continua*) – within a day the difference between morning and evening temperature does not exceed 1 °C, morning temperature is lower than the evening one.

2. Remittent fever (*febris remittens*): the daily fluctuations of the temperature exceed 1 °C and the morning's lowest temperature being over 37 °C, the morning temperature is lower than the evening one.

3. Intermittent fever (*febris intermittens*): the daily fluctuations of the temperature exceed 1 °C, morning temperature is lower than the evening one. The body temperature alternates regularly between a period of fever and a period of normal temperature.

4. Hectic fever (*febris hectica*): the temperature rises sharply (by 2–4 °C) and drops to normal and subnormal level, that is often accompanied by excessive sweating, morning temperature is lower than the evening one.

5. Invers fever (*febris inversus*) is type of fever, when morning temperature is higher than the evening one.

6. Irregular fever (*febris irregularis*) – the fever when circadian variations are varied and irregular.

According to the temperature curve, the recurrent (relapsing) and undulate fever are distinguished.

7. Recurrent fever (febris recurrens) is characterized by alternation of fever and afebrile periods.

8. Undulant fever (febris undulans) is characterized by periodic elevation of the temperature followed by its stop.

The temperature may decrease gradually during several days. This termination of fever is called lysis.

A sudden temperature drop to norm within 24 hours is called crisis.

Care for the patients with fever

While the temperature increases it is necessary to let the patient rest, to lay him in bed, and to apply a hot-water bottle to the legs. Depending on the condition of the patient it is recommended to give him some tea or coffee at this time. During a fever the toxic products are absorbed in an organism. It is necessary to give the patient plenty of liquid such as fruit juices, mineral water without gases, for removing the toxic products from organism. High-caloric and easy assimilated food is given as a kind of fluid or semifluid. The diet should include fruit and berry juices. In connection with the fall in appetite the patients are fed 6 times per day with small portions, limiting the salt. A bubble with ice, cold compress from a gauze napkin folded into four and moistened in a solution of Acetum (50 ml per 0.5 l of the water) is put on forehead in case of a sharp headache. The moistening of labium cracks with a liquid solution of Glycerin is necessary in case of cracks on the lips.

In resolution of the pyrexia as crisis, the patient puts hot water bottles all round himself. If the patient perspires excessively, his bedclothes and underwear should be changed several times a day. The skin should be cleansed with water mixed with alcohol.

Subnormal body temperature

A body temperature below the lower limit of normal is called hypothermia. Death may occur when the temperature falls below approximately 34 °C.

CARE FOR PATIENTS WITH RESPIRATORY PATHOLOGY

Simple Medical Procedures

The application of a *warming compress* is accompanied by local dilation of blood vessels and enlargement of blood circulation in tissues. The warming compresses are used in treatment of various local infiltrations.

Moist warming compress is prepared from four layers.

At the beginning, a piece of tissue moistened with solution of 40 % alcohol is put on skin. Then it is coated with a piece of the polyethylene film. At last a layer of cotton wool is placed there. Each subsequent layer of a compress should be bigger, than the previous one. Above the compress a bandage is placed.

The duration of application of a moist warming compress is 6–8 hours.

The local warming effect can be received with the help of a *hot water bottle*. In its application, relaxation of a smooth musculature will occur.

Hot water bottles in the volume from 1 to 3 liters are more often applied. Before using a hot water bottle it is filled with hot water (60–70 °C) approximately 2/3 of its volume, air is carefully evacuated. It is necessary to tightly screw hot water bottle with a cap and overturn it with the purpose to check this. Before giving it to the patient wrap it in a towel.

Standard *mustard plasters* are sheets of a dense paper of the size 8x12.5 cm, covered with a layer of the unoiled mustard powder. Mustard plasters are applied on skin, previously having moistened it with 40 °C water, and are taken off after 10–15 minutes.

The application of a mustard powder is based on the fact that evaporated ethereal oil causes irritation of skin receptors and its hyperemia, resulting in a reflex dilation of blood vessels located deep in the internal organs and it causes resorption of some inflammatory processes.

Cups give stronger vasodilator activity.

Cups are glass vessels with a spherical bottom and thickened edges of volume 30–70 ml. They are put on the body with well

developed muscular and subcutaneous fat, flattening bony formation (subclavian, subscapular, interscapular areas).

The skin is preliminarily sponged with vaseline. Then a burning cotton plug moistened with alcohol is put inside of every cup for 2–3 sec. After that with prompt and vigorous motion the cupping-glasses are moved in a circle of a wide area over the surface of the skin. Due to reduction of the air inside a cup (cupping-glass) slight pulling of the skin occurs. The skin becomes pink or purple. Duration of cup application is usually from 10 to 15 minutes. The number of cups depends on the size of the surface to which they should be applied. To take it off, it is enough to press with a finger on the skin near to the edge of the cupping-glass, simultaneously wedging it from the bottom in the opposite side.

The patient should then be wrapped in blankets and allowed to lie for 30–60 minutes.

Ice bags cause contraction of the blood vessels, thus decreasing the sensitivity of the peripheral nerves. Ice bag represents a flat rubber bag with a wide hole filled with small pieces of ice. The ice-bag is expedient, but overcooling should be avoided by hanging it (above a head or a stomach), making ten-minutes breaks every half an hour.

Moist cold compresses. Some layers a piece of a soft tissue moisten with cold water and put on the relevant area of the forehead or bridge (of the nose). As the moist cold compress soon reaches the temperature of the body, it is necessary to change it every 2–3 minutes.

CARE FOR PATIENTS WITH CARDIOVASCULAR PATHOLOGY

Prophylaxis of decubitus:

- 1) morning and evening toilet for dermal integuments;
- 2) frequent change of a linen;
- 3) rubbing of the patient with 10 % camphor alcohol;
- 4) change a patient's position every 2 hours;

5) a rubber circle covered with swaddling clothes is layed under the sacrum and coccyx.

Shock, collapse, and syncope are the symptoms of acute vascular insufficiency.

Collapse and shock are clinical manifestations of sharp vascular failure with sharp dropping of the arterial pressure and impairment in the peripheral circulation.

A patient in a state of collapse should be placed in the horizontal position, without pillows, to improve cerebral circulation and the legs should be slightly elevated (or the end of an adjustable bed should be raised). Warmth should be applied to the arms and feet. The arterial pressure should be elevated by subcutaneous administration of caffeine or camphor.

Hirudotherapy

Medical leeches are applied with the medical aim of blood removing and anticoagulant agent.

The secret of leeches saliva contains hirudin – a substance having the ability to brake down blood coagulation and to prevent thrombosis.

The indication for the hirudotherapy is thrombophlebitis.

As a rule, 4–6 leeches are applied along the course of the veins in the thrombophlebitis.

The site of the skin, on which it is necessary to put leeches, must be treated with sterile small balls moistened with warm boiled water, and then moistened with a sterile solution of glucose. A test tube is applied to the body and the leech is directed to the necessary site of the skin.

A leech must be released from the test tube, as soon as it bites through the skin and wavy movements appear in its front part.

Under the leech it is necessary to put a sterile napkin.

The leech falls off itself in 0.5–1 hour, after having sucked 5–10 ml of blood. If you need to take off a leech before this time, it is necessary to moisten the area of the front sucker with salty water and it falls off by itself. After the leeches are gone, it is necessary to apply a dry aseptic dressing with a plenty of cotton wool on the

place, which is not removed during the day (24 hours) to prevent bleeding.

CARE FOR PATIENTS WITH GASTROINTESTINAL DISEASES

Gastric lavage

Its action is to clean the stomach. Before the procedure, it is necessary to carry out a psychological preparation of the patient: to explain to the patient the purpose and order of carrying out the procedure and the rules of behaviour of the patient during the procedure.

Before the procedure demountable prostheses must be taken off.

During the procedure, the patient is on a chair.

The patient is given an oil-cloth apron to put on. The basin is placed between his legs on the floor.

The nurse takes the disinfected sonde with clear hands and measures the length, which is necessary to insert into the patient, from an umbilicus up to incisors. Then it is necessary to moisten the blind end of the sonde with water; to ask the patient to open his mouth and to say "a-a". After that the round end of the sonde is put on the base of the tongue, the patient is asked to swallow and at this moment a sonde is put into esophagus. In the case of vomiting the movement of the sonde should be stopped, the patient is advised to cover the sonde by lips and to breath through the nose. After some time the procedure is repeated before the sonde will be inserted to the necessary mark.

If the sonde enters the respiratory pathways the patient begins to cough, he turns blue and loses his voice. In this case the sonde should be immediately taken out, and after the patient becomes quiet, the procedure should be continued (repeated).

In long standing flatulence the application of a *colonic tube* is indicative.

Under the patient's pelvis an oil-cloth is placed. The procedure should be carried out in a position with the patient on his spine with bent knees and a little bit apart.

The round end of a tube is greased with Vaseline.

The buttocks are apart and slowly with rotary motions a tube is introduced into a rectum to a depth 20–30 cm, the outside end is placed in a vessel with water (bedpan).

The tube is removed after 30–60 minutes and the anus wiped with a wet cotton pad.

Enemas

An enema is an injection of liquids into the large intestine through the anus.

Cleansing enema

It is necessary to set up the Esmarch's irrigator on a support of a height of 1 m above the patient. After that the tip with Vaseline is greased. The patient is laid on the left-hand side with the legs, pulled to the stomach.

The buttocks are moved apart by I and II fingers of the left hand. With rotary movements is a tip carefully inserted into the anal hole; at first 3–4 cm in a direction of the umbilicus, then 8–10 cm in parallel to the spinal column.

The tap is then opened. The liquid should flow gently from the flask. The patient should retain the administered liquid for 5–10 minutes.

Then the patient empties his intestine into a toilet.

The cleansing enema is considered to be effective, if some feces masses are discharged with water within some minutes.

The administered liquid reaches the remain parts of the large intestine to intensify peristalsis and to cause the urge to defecate.

A hypertonic saline enema

The action of a hypertonic clyster is osmotic character: for dilution of a hypertonic salt solution up to isotonic concentration in a lumen of the rectum through an intestinal wall, an intercellular fluid intensively enters and dilutes the feces.

Also, the strong saline solution stimulates peristalsis, and as a result of such combined action, in 20 minutes evacuation of feces from the intestine occurs.

A hypertonic saline enema consist of 50-100 ml of a 10 per cent sodium chloride solution. The hypertonic solutions should be warmed up before administration. The patient should be defecate for 15-30 minutes after the enema.

A siphon enema

The patient assumes the same position as for a cleansing enema. The tip of the rectal tube is coated with Vaseline and gradually inserted into the rectum to a depth of 20–25 cm. The funnel is held slightly above the patient's body. Water is poured into the funnel from a jag and the funnel is raised 50 cm above the patient's body. When the liquid level in the funnel descends to the funnel's apex, the funnel is lowered over the basin and held in this position until the liquid containing intestinal materials raised to its initial level. The liquid is then discarded into the basin. Clean water is poured into the funnel and the siphonage is repeated until the water returning to the funnel is clear. After use, the funnel and the tubes are cleaned.

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