

The Role of Nursing Staff in the Care of Pediatric Patients in the Postoperative Period

Anvarova Nilyufar Dilshodovna

Department of advanced training in nursing, Samarkand State Medical University

Abstract: Nursing care of patients in the postoperative period is a prerequisite for quality recovery of a person who has undergone surgical intervention. At this time, the patient is in an incapacitated state, unable to care for himself. His body is weakened, and he himself needs professional care and rehabilitation. In addition, the risk of postoperative complications is high.

Keywords: Role of nursing staff, children, postoperative period.

Introduction. Surgical operations affect the work of all organs and systems of the body. After their performance, the patient for some time is deprived not only of labor capacity, but also of the ability to provide for his own physiological needs. He cannot eat and drink independently, go to the toilet, follow hygiene, even move. In this case, he requires special conditions of confinement, daily monitoring of psychophysiological parameters, medical procedures to treat wounds, sutures, pain relief.

If the patient's condition in the postoperative period is unstable, the participation of a nurse is vital. Only a professionally trained person can provide the necessary assistance in an emergency situation.

Nursing care for the postoperative patient will accelerate the patient's recovery and his return to normal life, prevent the development of possible complications

The organization of proper care for a person after surgical intervention is a responsible and difficult matter. It is necessary to ensure and maintain sterility in the ward or other room where the patient is located, to carry out the necessary medical and hygienic procedures, to provide psychological support. Anatomic-physiological features of the pediatric organism determine the need for special postoperative care. The nurse must know the age norms of basic physiological parameters, the nature of nutrition of children of different age groups (especially newborns and infants), as well as clearly understand the pathology and the principle of surgical intervention.

Among the factors affecting the course of the postoperative period in children and determining the need for special care for them, the most important is the mental immaturity of the patient and the peculiar reaction of the body to the surgical trauma.

General principles of postoperative care for children. After the child is brought from the operating room to the ward, he is placed in a fresh bed. The most comfortable position at first is on the back without a pillow. A small child, not realizing the seriousness of the condition, is sometimes too active, often changes position in bed, so you have to resort to fixing the patient by tying to the bed limbs with cuffs made of flannel or bandages and absorbent cotton. In very restless children, the torso is additionally secured with a wide soft belt. Fixation should not be rough. Too tight cuffing of the limbs causes pain and venous stasis and may cause nutritional

disorders of the foot or hand up to necrosis. The space between the cuff and the skin should be free for the fingers. The position of the limbs is changed from time to time. The duration of fixation depends on the age of the child and the type of anesthesia. After surgery under local anesthesia fix only infants and toddlers for 2-3 hours. However, in most cases, surgical intervention in children is performed under general anesthesia. In such cases, regardless of the age of the child, fixation is performed until full awakening. During the awakening period, the child is especially restless and mobile, his consciousness is darkened, and in this state he can tear the sticker, damage the sutures and even fall out of bed. In 4-6 h after surgery, when the child is fully awake, a calm patient (usually older children) can be released from the cuff and belt and allowed to turn on his side and bend his legs in the absence of contraindications. In younger children, arm fixation is necessary for a longer period of time (up to 3 days or more) to avoid damage and infection of the sutures.

Vomiting is common during awakening from anesthesia, so prevention of aspiration of vomit is very important to avoid aspiration pneumonia and even asphyxia (suffocation). As soon as the nurse notices the urge to vomit, she immediately turns the child's head on its side, and after throwing out the vomit, carefully wipes the child's mouth with a clean diaper prepared in advance. Individual observation in such cases is necessary until full awakening and cessation of vomiting.

During the period of awakening and the following hours the child is very thirsty and insistently asks for a drink. The nurse is strictly guided by the doctor's instructions and does not allow unnecessary intake of water, which may cause repeated vomiting. Unless there are special contraindications, about which the doctor necessarily informs the ward nurse, after minor operations (appendectomy, hernia repair, removal of small superficial tumors, etc.), as soon as the effect of anesthesia passes and in the absence of vomiting, the patient can be given to drink boiled water or sweetened tea with lemon. At first, give no more than 2-3 teaspoons of liquid every 20-30 minutes, then the dose is increased. If water does not cause vomiting, start feeding, the nature of which depends on the type of surgical intervention.

In the immediate postoperative period in children is of great importance to control pain. If the child is restless and complains of pain in the area of the surgical wound or elsewhere, the nurse immediately informs the doctor. Usually in such cases, soothing pain medications are prescribed.

When caring for a small child must necessarily take into account that he, first, does not ask for a potty independently; secondly, the number of urinations per day he has increased compared to adults, stools are also more frequent. Therefore, it is absolutely necessary to repeatedly monitor natural discharges during the day, timely change of diapers and toilet perineum. In the absence of stool put a cleansing enema at the end of the second or beginning of the third day after surgery, and with abdominal bloating used gas tube for 15-20 minutes, if the course of the disease itself does not require more vigorous measures. In case of urinary retention, the nurse should inform the physician, as urinary retention may indicate the development of severe complications and sometimes requires urgent intervention.

Postoperative sutures are usually closed with a sticker, sometimes with a bandage or special pastes. During the nursing process, the nurse ensures that the dressing is clean in the area of the sutures. On the neck and upper torso sutures are protected from contamination by vomit, from getting pieces of food, saliva. In interventions on the lower abdominal cavity or perineum, back, the bandage covering the sutures, protect from contamination by feces and urine.

After severe and complex operations, patients are placed in an intensive care unit, as control of respiratory function is important. Sometimes there is a need for apparatus or manual artificial ventilation, as well as oxygen therapy with a nasopharyngeal catheter, oxygen tent, etc.

In the immediate postoperative period, there may be changes in hemodynamic parameters - tachycardia, decrease or increase in blood pressure. Nurse on the appointment of the doctor conducts measures to prevent or eliminate such complications, in particular provides infusion

therapy (fluid infusion). The latter requires strict adherence to the rules of asepsis. It should become a rule to use only disposable systems for intravenous infusions to avoid allergic reactions. If the patient needs constant fluid administration, the drip system is changed 1-2 times a day. Solutions and their combinations should be administered in strict accordance with the doctor's prescription, as it is important not only the total amount, but also the sequence of administration of fluids. Thus, potassium chloride in severe intoxication is preferable to administer in combination with glucose solution, insulin, novocaine. This reduces the risk of side effects caused by a sharp increase in the concentration of potassium in the blood, and also improves its perception by the cells of the body. Glucose promotes better assimilation of proteins, so glucose solutions should be administered simultaneously or immediately before protein preparations.

During prolonged intravenous infusions, the nurse ensures that the system is functioning properly and in good working order. The frequency of drops should not be too high, otherwise excessive amounts of fluid will be injected into the body, which is fraught with the development of edema of the lungs, heart muscle, brain and may cause the death of the patient. At the same time, a rare supply of drops will not only not be sufficient, but also contributes to the blockage of blood vessels, the development of inflammatory phenomena. Optimal is considered the frequency of drops 8-10 per 1 min. To avoid phlebitis of peripheral veins should be at the first signs of inflammation (pain along the course of the vein, hyperemia) remove the drip and use another vein. On the site of inflammation apply a compress with alcohol or ointment Vishnevsky.

On the patient placed in the intensive care ward, a special appointment card, in which every 1-2 hours record body temperature, pulse rate and respiratory rate, blood pressure, the amount of urine excreted, the volume of injected and drunk fluids, etc. In the same card, the nurse notes the fulfillment of doctor's appointments. Observation of the child and clear registration of the main indicators of body functions allow the nurse to timely notice the signs of impending threatening complications and provide the necessary pre-hospital care.

In the postoperative period, the following complications are most often observed.

Hyperthermia develops mainly in infants and is expressed in an increase in body temperature to 39 ° C and above, often accompanied by convulsive syndrome. In the absence of emergency treatment, brain edema may develop with unfortunate consequences. To treat hyperthermia intramuscularly injected 1% solution of amidopyrine at the rate of 0.5 ml per 1 kg of body weight of the child, but no more than 20 ml. The temperature is measured every 30 minutes. If there is no effect, repeat the injection of amidopyrine in the same dose after 2 h, adding 0.1-0.2 ml of 25% solution of analgin per 1 kg of body weight. Apply bladders with ice to the area of the main vessels (mainly femoral arteries). Intravenously administer cooled 20% glucose solution (5-20 ml depending on age). The child is naked, the skin is wiped with alcohol.

Respiratory failure is manifested by dyspnea, livid coloration of the lips or general lividity, and shallow breathing. Sudden respiratory arrest may occur. The complication develops suddenly or gradually. Finding out the cause of respiratory failure is the doctor's job, but the nurse can help him or her understand the cause of the complication. The nurse's role in preventing respiratory failure is particularly important (prevention of aspiration of vomit, regular suctioning of mucus from the nasopharynx, strict monitoring of the amount of fluid administered, etc.). In life-threatening cases, the nurse provides pre-hospital care, providing the child with oxygen or fresh air, performing artificial respiration.

Cardiovascular insufficiency is observed mainly after large, long, associated with large blood loss operations. The nurse establishes individual observation of such a patient and at the slightest signs of developing cardiovascular insufficiency (in particular, with increased pulse rate, drop in blood pressure, heart rhythm disturbance) urgently inform the doctor. Assistance provided by the nurse before the doctor arrives may consist of injection of cardiovascular drugs (cordiamine,

ephedrine in age-appropriate dosages), giving oxygen. The patient's head is lowered down. In cardiac arrest or a sharp weakening of cardiac activity is performed closed heart massage in combination with artificial respiration.

Bleeding can be external or internal and manifested by direct or indirect signs. Direct signs are bleeding from the postoperative wound, blood discharge from the tracheobronchial tree, vomiting blood, its admixture in the urine or feces. Indirect signs include pallor of the skin and visible mucous membranes, cold sweat, tachycardia, decreased blood pressure. In all cases, the nurse will report any signs of bleeding she notices to the physician.

Oliguria, anuria - decrease or cessation of urine excretion. A sharp reduction in the amount of urine indicates either a marked decrease in the volume of circulating blood, or kidney damage. In any case, the nurse is obliged to inform the physician in a timely manner about the observed violations of diuresis in the patient.

Many details of nursing care depend on the anatomical region in which the surgical intervention is performed.

After surgery on the face and neck, the focus is on keeping the sutures intact and the surgical area clean. The child's hands are fixed to the bed for the entire period until complete healing of the wound, or bandage the area of the elbow joints light plaster or plywood splints, so that the child can not bend in the elbow joints of the hands and damage the sutures. During surgery for upper lip malformation, the patient is fed from a spoon with decanted breast milk or milk formula, which he received before the operation. After each feeding of milk, 2-3 teaspoons of boiled water are given so that there is no milk left in the mouth. The wound is managed openly, without bandages or stickers. Putting the baby to the breast or feeding from the horn begins 2 weeks after surgery. In the case of surgery for palatal incontinence, the child receives only liquid food for a month. After each feeding, the patient must be offered to rinse the mouth. Children who do not know how to do this, after eating give a drink of boiled water so that food particles do not remain in the mouth.

After surgery on the thoracic organs of the primary task is the prevention of respiratory failure. In this case, the position of the patient in bed plays a major role. Soon after awakening from anesthesia, the child is placed in an elevated semi-sitting position, but sometimes give the position on the sick side. In each case, the physician gives appropriate instructions to the nurse. Children do not cough up mucus accumulated in the respiratory tract, so it is necessary to actively aspirate mucus with suction. This manipulation is performed by the nurse at the prescription of the doctor every 20-30 minutes. In addition, prescribe inhalation, vibration chest massage. The latter is a rhythmic pounding of the chest in places of projection of the lungs with the fist of the right hand on the left hand, applied to the chest wall. It is desirable to use mustard, cans, expectorant mixtures.

To avoid pneumothorax and hemothorax pleural cavity is usually drained and the end of the drainage is connected to an electric or water-jet suction (active drainage) or, wearing a rubber valve tip, lowered into a jar with antiseptic fluid (passive drainage). The nurse monitors the function of the drainage, records the amount of fluid released, and at the slightest malfunction of the drainage informs the doctor. When removing part of the lung, active aspiration is preferable; in most cases, a rarefaction of 6-10 mm of water column is sufficient. In the first hours and days after resection of the lung, there is usually "blowing" in the system, manifested by the presence of air bubbles passing through the long tube of the second jar. This is caused by air penetration through the lung area damaged during the operation. Later, with a favorable course of the postoperative period, "blowing" stops. Its presence a few days after surgery suggests the formation of a bronchial fistula.

After abdominal surgery, care depends on the severity and extent of the intervention. After relatively uncomplicated operations (appendectomy, pyloromyotomy, etc.), care is carried out in accordance with the recommendations outlined above in the section "General principles of

postoperative care for children". In complex surgical interventions (for example, for bowel obstruction, peritonitis, etc.), especially those involving the removal of part of the intestine, postoperative care requires increased attention. The patient is given a semi-sitting position in bed, but from time to time allowed to turn on his side. In the first 2-3 days exclude feeding by mouth, and often water intake. The child receives parenteral nutrition. A nasogastric tube is often left in such patients. The nurse monitors the nature of secretions through the probe, recording the amount of fluid excreted. Every 2 h the probe is washed with a small amount of isotonic sodium chloride solution to avoid blockage. Gastric tube is kept 48-72 h, until it does not stop the release of mucus green color. With a functioning tube can be given to drink in small portions. On the beginning of feeding by mouth, the doctor warns the nurse and prescribes a scheme in accordance with the nature of the intervention.

Often after surgery on the organs of the abdominal cavity, bloating of the intestinal loops with gases is observed. Significant flatulence is accompanied by pain, difficulty breathing. In order to prevent and combat flatulence is useful to give inhaled oxygen and periodically, every 2 h, insert a gas drainage tube for 15-20 min.

Interventions for suppurative processes of the abdominal cavity often end with drainage - leaving rubber tubes or gauze swabs, which are covered with tissues and bandages. The nurse makes sure the dressing is clean, changing it as directed by the doctor. It is important that the bandage was not tight, otherwise it creates patient discomfort, limits the excursion of the diaphragm, especially with flatulence, and thus adversely affects the respiratory function.

After surgery on the organs of the urinary system peculiarities of postoperative care are primarily due to the presence of drains. After placing the child in bed, drains with the help of glass tubes are connected to drainage rubber tubes, the ends of which are freely lowered into bottles suspended from the edge of the bed. Fix the drains to the bottle can not be, as the movement of the child drainage can pop out. Each drainage should correspond to a separate bottle, which is poured 50 ml of furacilin 1:1000 or a weak solution of potassium permanganate. The nurse constantly makes sure that the drainage tube is not kinked and provides a constant outflow of urine. Violation of the installation of drainage and even more prematurely fall out of it is a dangerous complication that can cause the development of urinary congestion. Children usually can not lie still in bed, they turn on their side, sit down. On the 5th-6th day, the thread with which the surgeon during the operation fixed the drainage to the skin, usually weakens and there is a threat of falling out of the drainage. Therefore, from the first day after surgery it is necessary to additionally fix the drainage to the skin with strips of adhesive plaster.

Of great importance in the postoperative period is the measurement of diuresis. The nurse strictly takes into account the amount of fluid drunk by the child and injected intravenously, and just as strictly measures the amount of urine excreted per day from the bladder and from each drainage separately. It is necessary to note and the degree of seepage of urine into diapers and bandages. All these data are recorded by the nurse in a special card. A progressive decrease in the daily amount of urine or lack of urine excretion requires urgent action.

After perineal surgery, the child is most often placed in a position with the legs raised and apart, which are fixed with a special plaster splint or soft bandages to the bars attached to the top of the bed; a blanket is thrown on top of the bars - thus creating a frame. Inside the frame placed one or more detached electric bulbs, the purpose of which - to dry the area of the sutures and to some extent warm the patient. In this position, the child is 7-9 days, then it is transferred to the usual position on the back.

It is especially important to observe the condition and proper functioning of drains (strips of rubber, gauze, tubes and catheters), which are inserted into the wound, anus, external opening of the urethra. The nurse makes sure that the child does not accidentally pull out the drain, records the nature and amount of discharge. The nurse does not change or remove drains on her own without the doctor's involvement.

From the 2nd day after the operation, the child receives the same diet as before the operation. To improve the conditions of fecal discharge, liquid vaseline oil is prescribed 1 tablespoon 3 times a day. After the act of defecation, the nurse carefully performs perineal toilet with a weak solution of potassium permanganate, then dry the skin with gauze balls. From time to time change the position of the legs, and in the absence of contraindications for some time to release the legs from the fixation bandages.

After surgery on the limbs, as well as fractures are usually applied fixing plaster bandages, bandages, in some cases apply skeletal traction, lay the limb in a splint Belair. The nurse monitors the safety of the bandage, the correct position of the limb in the splint, the state of soft tissue around the spokes. It is very important to keep under control the color of the fingers. If their lividity appears or the child complains of pain in the limb, it is necessary to immediately inform the doctor.

Conclusions: Without nursing care for patients in the postoperative period, their recovery is impossible. Only a specialist with specialized training will be able to provide conditions for the recovery of patients.

List of references:

1. Storozhenko O.V., Ligonenko A.V., Shumeiko I.A. Fundamentals of care of surgical patients. / Educational and methodical manual. - Poltava. 2016. - 48 c.
2. Paramonova N.S. et al. Care for a sick child. / Educational and methodical manual for students of pediatric faculty. - Grodno. 2010. - 196 c.
3. Zhdanova L.A. et al. Observation and care for a sick child. / Training manual for students of medical universities. - Ivanovo. 2010. - 197 c.
4. Zaprudnov A.M., Grigoriev K.I. General nursing care of children. / Guide to practical training and nursing practice. - Yaroslavl. 2015. - 357 c.
5. Matveychik T.V., Tishchenko E.N. Theory of nursing practice. - 2016.
6. Petrov V.N., Lapotnikov V.A. Nursing in therapy. Textbook for academic baccalaureate. Yurait. - 2020. - 475 c.
7. Chuvakov G.I., Okonenko T.I. Nursing in surgery. Textbook and practice for academic bachelor's degree. Yurait. - 2016. - 159 c.