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SAFETY PRECATIONS DURING CHEMOTHERAPY

Chemotherapy is strong medicine, so it is safest for people without cancer to avoid direct contact with the drugs. That's why oncology nurses and doctors wear gloves, goggles, gowns and masks. When the treatment session is over, these items are disposed of in special bags or bins.

After each chemotherapy session, the drugs may remain in your body for up to a week. This depends on the type of drugs used. The drugs are then released into urine, faeces and vomit. They could also be passed to other body fluids such as saliva, sweat, semen or vaginal discharge, and breast milk.

Some people having chemotherapy worry about the safety of family and friends. There is little risk to visitors, including children, babies and pregnant women, because they aren't likely to come into contact with any chemotherapy drugs or body fluids. The safety measures listed below are recommended for family or friends who are providing care or have other close contact during the recovery period at home.

Chemotherapy safety precautions

Follow these safety guidelines to reduce exposure to chemotherapy drugs. Safety precautions can vary depending on the drugs you receive, so ask your treatment team about your individual situation.

Use a plastic bucket

Vomit into a plastic bowl or bucket (or a plastic bag with no holes). Don't use the bowl or bucket for anything else, and throw it out after your final chemotherapy session.

Clean up spills

Keep a supply of cleaning cloths, paper towels and disposable waterproof gloves handy. If any body fluids (during the week after a treatment session) or chemotherapy drugs spill onto household surfaces, put on a pair of waterproof gloves, soak up the spill with paper towels, clean around the area with a disposable cloth and soapy water, and rinse the area with water. Seal used gloves, cloths and paper towels in a plastic bag before putting them in the bin.

Take care going to the toilet

For a week after a treatment session, sit down to use the toilet. Put the lid down before flushing to avoid splashing.

Wear disposable gloves

During the week after a treatment session, wear disposable waterproof gloves when handling clothing or bedsheets soiled with vomit or other body fluids. Seal the gloves in a plastic bag and discard after use.

Keep tablets whole

Don't crush, chew or cut chemotherapy tablets. If you can't swallow a tablet whole, ask your oncologist or pharmacist whether the drugs come in other preparations (i.e. liquid).

Handle laundry carefully

Wash clothing or other items soiled with body fluids separately. Use the longest washing machine cycle (hot or cold water can be used). Line dry the items.

Put medicines in a safe place

Store all tablets, capsules or injections as directed by your oncologist or pharmacist – they often need special storage to keep them effective and safe. Keep them out of reach of children, and do not store them in a pill organiser with other medicines.

NURSING RESPONSIBILITIES DURING RADIATION THERAPY

1. Provide educa tion

-Many manifestations of radiation therapy do not develop until approximately 10-14 days. And some do not subside until several weeks after treatment.

-The nurse explains the procedure, delivery of radiation, describe the equipment, the duration and the possible need of immobilizing the patient.

2. M inimiz e s ide e ffe c ts

-In women of child bearing age, RT may cause prolonged or permanent infertility.

-In prostate radiotherapy, when radioactive seeds have been implanted, there is low, weakly penetrating radiation for others.

-Therefore the client should use a condom for sexual intercourse in the first few weeks after the procedure.-Also the client should avoid close contact (<6 feet) contact with pregnant women and young children (younger than 3 years) for more than 5minutes a day during the first 2 months following implantation.-

If systemic symptoms occur, such as weakness and fatigue occur, the patient may need assistance with ADL and personal hygiene.

-When a patient has a radioactive implant in place, nurses and other healthcare personnel need to protect themselves as well as the patient from the effects of radiation.

3. Provide a non-stressful environment

-Some people who receive radiation to the head and neck. experiences redness and irritation in the mouth, a dry mouth, difficulty in swallowing, changes in taste or nausea.

-Other possible side effects include a loss of taste, earaches and swelling.

-Skin texture might change and jaws may feel stiff.

4. Dental care

-If you wear dentures, they may no longer fit well because of swollen gums. If your dentures can cause gum sores, you may need to stop wearing them until your radiation therapy is over because sores can become infected.

-Clean teeth and gums thoroughly with a very soft toothbrush after meals and at least once a day each day.-Use fluoride toothpaste that contains no abrasives.

-Use unwaxed dental tape to gently floss between once a day.-Rinse your mouth well with cool water or a baking soda solution after brushing.
Use 1 tsp. baking soda in 1 quart of water.

-Apply fluoride regularly as prescribed by your dentist.

5. Many patients feel tired due to the radiation therapy which can affect their emotions.

6. Patients might feel depressed, afraid, angry, frustrated, alone or helpless

- P e e r su p p o r t g r o u p s ma y me e t a t yo u r ho sp it a l

-Emotional and spiritual encouragement also is important to the healing process.

7. Side effects can include eating and digestion problems. You may completely lose interest in food during your treatment.-Even if you are not hungry, it is important to keep your protein and calorie intake high

. -Doctors have found that patients who eat can better handle their cancers and side effects.

-Eat when you are hungry, even when it is not meal time.-Eat several small meals during the day rather than 2 or 3 large meals.

-Vary your diet and try new recipes.-If you don’t drink alcohol, ask your doctor if you should avoid alcohol during your treatment.

-Keep healthful snacks close by nibbling when you get the urge.

Drink milkshakes or prepared liquid supplements between meals.

-Patient receives a low residue diet to prevent frequent bowel movements.

-Radiation therapy may cause anorexia which may lead to inadequate nutrition and hydration so small frequent feedings or use of nutritional supplements may be required to maintain adequate nutrition.

-In radiation therapy, fatigue or malaise also contribute to poor nutritional intake thus planned rest periods may provide relief of fatigue providing increased energy for meal preparation or consumption.

-Nutrition – to promote retention of nutrients, administer antiemetics asprescribed.

-Encourage high calorie meals when child is least likely to benauseated. Praise a child's effort to eat.

-Provide foods identified by child as special favorites.

-Serve easy to swallow food at tolerable temperature.

-If mucous membrane of mouth, pharynx or esophagus is irradiated, modification of diet to bland, soft, or liquid foods will be necessary; mouth is rinsed frequently with a mild alkaline mouthwash; teeth are gently cleansed with absorbent cotton or gauze rather than the usual brush.

-Avoids foods that are dry and thick.

8. For lactating mothers undergoing radiation therapy.

-Advise pt. not to breastfeed to prevent adverse effects to fetus.

-Advise pt. to drink plenty of fluids to prevent dehydration.

-Monitor nutritional status.

9. Miscellaneous.

-A urinary catheter will be in place (if ordered) and must be inspected frequently to ensure that it drains properly.

-Any profuse discharge should be reported immediately to the radiation oncologist or gynecologic surgeon.

-Observing the patient for temperature elevation, nausea, and vomiting. The symptoms may indicate such complications as infection.

-Patient teaching includes informing the patient that abdominal fullness, cramping, backache, and the urge to void are normal feelings during therapy.

-Severe should not occur.

Mild opioid agents, muscle relaxants or sedative medications may be helpful.-Private room, with private bathroom and facilities.

-Room previously occupied with patients previously treated with radionuclide treatment should not be used until the room has been cleansed and surveyed for residual contamination.

-Items such as bedpans, urinals and basins if disposable may be disposed of as radioactive waste. If these items are not disposable, they shall be thoroughly washed with soap and running water.

-Any vomitus, gastric contents collected during the first 24 hours by nasogastric aspiration or excessive sputum should be collected in a waterproof container and held for disposal by radiation safety division personnel.

-Wearing of lead apron-The nurse must deal safety with radioactive body discharges by wearing gloves and in some instances placing excreta in containers for special disposal.

-For a child receiving radiation therapy-Provide ample time to answer questions of children undergoing radiation therapy.

-Advice client to wear loose clothing as skin in the area being treated might become more sensitive to touch. Skin changes:-The patient is observed for possible reactions:

Slight redness for a brief period

Transitory epilation

Erythema with temporary sweat gland activity suppression

Dry desquamation-For large doses or sensitive skin; observe the following-For large doses or sensitive skin; observe the following:

Marked erythema followed by purple discoloration Blister

formation and moist desquamation.

Slow healing, leaving skin atrophied, thin and very sensitive to heat, cold and trauma.

Permanent epilation and sweat gland destruction-

After treatment, the area is gently cleansed with tepid water and patted dry; soap is not used and brisk rubbing is avoided.-Alcohol, powders, oils, lotions, creams, ointments, deodorants are not used unless prescribed by the doctor.

-The site is kept dry and may be covered lightly with smooth cloth/cotton but adhesive tape is contraindicated, used an alternative instead.

-If larynx is treated with radiation, the patient is closely observed 3-4 days for any difficulty in breathing; edema may develop and occlude airway necessitating prompt intubation or a tracheostomy.

Frequent blood cell counts are done because the hemapoetic tissue is extremely sensitive to radiation.

-Contact with persons with an infection should be avoided especially with respiratory infection because of the patients lowered resistance.

-Patient should have an extra rest, increased fluid intake and a high calorie, high protein, high vitamin diet.

-If the patient is allowed to go home, the importance of keeping the appointments for his treatments is stressed.

Internal Radiation Therapy:

-Patient should receive a simple explanation of the procedure and necessary precautions so he will know what to expect and what is expected of him.

-Time is taken to answer his questions and dispel misconceptions.-After implantation, temperature is taken every 4 hours, an increase over 38 degrees is perorated.

-Any radioactive material should be handled with a long forceps, never with hands.

-All dressings should be checked before disposal.-Patient's visitors are required to maintain a 3 feet distance from the patient.

-Health workers should know the time at which the radioactive implant is to be removed and should have necessary equipment in advance and to remind the person responsible for removal.

NURSING RESPONSIBILITIES OF CANCER PATIENTS

Maintaining Tissue Integrity

- **Stomatitis.** Assessment of the patient's subjective experience and an objective assessment of the oropharyngeal tissues and teeth are important and for the treatment of oral mucositis, **Palifermin (Kepivance)**, a synthetic form of human keratinocyte growth factor, could be administered.
- **Radiation-associated skin impairment.** Nursing care for patients with impaired skin reactions includes maintaining skin integrity, cleansing the skin, promoting comfort, reducing pain, preventing additional trauma, and preventing and managing infection.
- **Alopecia.** Nurses provide information about hair loss and support the patient and family in coping with changes in body image.

- **Malignant skin lesions.** Nursing care includes cleansing the skin, reducing superficial bacteria, controlling bleeding, reducing odor, protecting the skin from further trauma, and relieving pain.

Promoting Nutrition

- **Anorexia.** Anorexia may occur because people feel full after eating only a small amount of food.
- **Malabsorption.** Surgical intervention may change peristaltic patterns, later gastrointestinal secretions, and reduce the absorptive surfaces of the gastrointestinal mucosa, all leading to malabsorption.
- **Cachexia.** Nurses assess patients who are at risk of altered nutritional intake so that appropriate measures may be instituted prior to nutritional decline.

Relieving Pain

- **Assessment.** The nurse assesses the patient for the source and site of pain as well as those factors that increase the patient's perception of pain.
- **Cancer pain algorithm.** Various opioid and nonopioid medications may be combined with other medications to control pain as adapted from the World Health Organization three-step ladder approach.
- **Education.** The nurse provides education and support to correct fears and misconceptions about opioid use.

Decreasing Fatigue

- **Assessment.** The nurse assesses physiologic and psychological stressors that can contribute to fatigue and uses several assessment tools such as a simple visual analog scale to assess levels of fatigue.
- **Exercise.** The role of exercise as a helpful intervention has been supported by several controlled trials.
- **Pharmacologic interventions.** Occasionally pharmacologic interventions are utilized, including antidepressants for patients with depression, anxiolytics for those with anxiety, hypnotics for patients with sleep disturbances, and psychostimulants for some patients with advanced cancer or fatigue that does not respond to any medication.

Improving Body Image and Self-esteem

- **Assessment.** The nurse identifies potential threats to the patient's body image experience, and the nurse assesses the patient's ability to cope with the many assaults to the body image experienced throughout the course of the disease and treatment.

- **Sexuality.** Nurses who identify physiologic, psychologic or communication difficulties related to sexuality or sexual function are in a key position to help patients seek further specialized evaluation and intervention if necessary.

Assisting in the Grieving Process

- **Assessment.** The nurse assesses the patient's psychological and mental status, as well as the mood and emotional reaction to the results of diagnostic testing and prognosis.
- **Grieving.** Grieving is a normal response to these fears and to actual or potential losses.

Monitoring and Managing Potential Complications

- **Infection.** The nurse monitors laboratory studies to detect any early changes in WBC counts.
- **Septic shock.** Neurologic assessments are carried out, fluid and electrolyte status is monitored, arterial blood gas values and pulse oximetry are monitored, and IV fluids, blood, and vasopressors are administered by the nurse.
- **Bleeding and hemorrhage.** The nurse may administer IL-11, which has been approved by the FDA to prevent severe thrombocytopenia, and additional medications may be prescribed to address bleeding due to disorders of coagulation.

Promoting Home and Community-Based Care

Nurses in the outpatient settings often have the responsibilities for patient teaching and for coordinating care in the home.

- **Teaching patients self-care.** Follow-up visits and telephone calls from the nurse assist in identifying problems and are often reassuring, increasing the patient's and the family's comfort in dealing with complex and new aspects of care.
- **Continuing care.** The responsibilities of the home care include assessing the home environment, suggesting modifications at home or in care to help the patient and the family address the patient's physical needs.