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1. **NURSING RESPONSIBILITIES FOR A PATIENT RECEIVING RADIOTHERAPY**

Teaching is a primary responsibility of nursing care for radiation patients. Patients and families must know what to expect, get a chance to ask questions, and have those questions answered to their satisfaction. In some facilities, patients and families can tour the radiation department on designated days to become familiar with the facility and learn about the treatment process.

**NURSING RESPONSIBILITIES FOR EITHER EXTERNAL OR INTERNAL RADIATION THERAPY**

**EXTERNAL RADIATION**

Prior to the start of treatments, the treatment area will be specifically located by the radiation oncologist and marked with colored semi-permanent ink. Treatment is usually given 5 days per week for 15 to 30 minutes per day over 2 to 7 weeks.

**NURSING RESPONSIBILITIES**

1. Monitor for adverse effects: skin changes, such as blanching, erythema, desquamation, sloughing, or hemorrhage; ulcerations of mucous membranes; nausea and vomiting, diarrhea of GI bleeding.
2. Assess lungs for rales, which may indicate interstitial exudate. Observe for any dyspnea or changes in respiratory pattern.
3. Identify and record any medications that the client will be taking during the radiation treatment
4. Monitor white blood cell counts and platelet counts for significant decreases.

**CLIENT AND FAMILY TEACHING**

* Wash the skin that is marked as the radiation site only with plain water, no soap, do not apply deodorant, lotions, medications, perfume or talcum powder to the site during the treatment period. Take care not to wash off treatment marks
* Do not rub, scratch or scrub treated skin areas. If necessary use only an electric razor to shave the treatment areas
* Apply neither heat or cold e.g. ice packs or heating pads to the treatment site
* Inspect the skin for damage or serious changes and report these to the radiologist of physician
* Wear loose soft clothing over the treated area
* Protect skin from sun exposure during treatment and for at least one year after radiation therapy is discontinued
* External radiation poses no risk to other people for radiation exposure even with intimate physical contact
* Be sure to get plenty of rest and a well-balanced diet

**INTERNAL RADIATION**

The radiation source called an implant is placed into the affected tissue or body cavity and is sealed in tubes, containers, wires, needles, capsules. Internal radiation may also be ingested or injected as a solution into the bloodstream or body cavity or maybe introduced into the tumor through a catheter. The radioactive substance may transmit rays outside the body or excreted in body fluids.

**NURSING RESPONSIBILITIES**

1. Place the client in a private room
2. Limit visits to 10-30 minutes and have visitors sit at least 6 feet from the client
3. Monitor the side effects such as burning sensations, excessive perspiration, chills and fever, nausea and vomiting or diarrhea
4. Assess for fistulas or necrosis of adjacent tissues

**CLIENT AND FAMILY TEACHING**

* Advice patient to stay in bed and stay in place and rest quietly to avoid dislodging the implant
* For out-patient treatments, avoid close contact with others until treatment has been discontinued
* If the radiologist indicates the need for such measures, dispose of excretory materials in special containers or in a toilet not used by others
* Carry out daily activities as able; get extra rest if feeling fatigued
* Eat a balanced diet; frequent small meals often are better tolerated
* Contact the nurse or physician for any concerns or questions after discharge.

1. **NURSING PRECAUTIONS FOR A PATIENT RECEIVING CHEMOTHERAPY TREATMENT**

Nursing Responsibilities:

**Before the Procedure**

* Explain the importance of the procedure to the patient.
* Provide privacy.
* Teach the patient on how the procedure is done.
* A number of medical tests are done before chemotherapy is started. The oncologist will determine how much the cancer has spread from the results of x rays and other imaging tests and from samples of the tumor taken during surgery.
* Review- The chemotherapy drugs prescription which should have   
  -Name of anti-neoplastic agent.  
  -Dosage  
  -Route of administration  
  -Date and time that each agent to be administered.
* Accurately identify the client
* Medications to be administered in conjunction with the chemotherapy e.g antiemetics, sedatives etc.
* Assess the clients condition including  
  Most recent report of blood counts including hemoglobin ,hematocrit, white blood cells and platelets.  
   Presence of any complicating condition which could contraindicate chemotherapeutic agent administration i.e. infection, severe stomatitis, decreased deep tendon reflexes, or bleeding  
  -Physical status  
  -Level of anxiety  
  -Psychological status
* When a chemotherapy treatment takes a long time, Advise the patient that he may prepare for it by wearing comfortable clothes. Bringing a book to read or a tape to listen to may help pass the time and ease the stress of receiving chemotherapy. Some patients bring a friend or family member to provide company and support during treatment.
* Advice Sometimes, patients taking chemotherapy drugs known to cause [nausea](http://www.answers.com/topic/nausea%20/%20_top) are given medications called [anti emetics](http://www.answers.com/topic/antiemetic-1%20/%20_top) before chemotherapy is administered. Anti-emetic drugs help to lessen feelings of nausea. Two anti-nausea medications that may be used are Kytril and Zofran.

Other ways to prepare for chemotherapy and help lessen nausea are:

         Regularly eat [nutritious](http://www.answers.com/topic/nutritious%20/%20_top) foods and drink lots of fluids.

         Eat and drink normally until about two hours before chemotherapy.

         Eat high [carbohydrate](http://www.answers.com/topic/carbohydrate%20/%20_top), low-fat foods and avoid [spicy](http://www.answers.com/topic/spicy%20/%20_top) foods.

**During the Procedure**

* Prepare measures when administering chemotherapy.
* Use gloves when handling chemotherapy drugs and excretions from clients receiving chemotherapy.
* Wear disposable long-sleeves gowns when preparing and administering chemotherapy.
* Use Luer-lock fittings on IV tubing used in delivering chemotherapy.
* Observe the 10 Rights

**After the Procedure**

* Dispose of all equipment used in chemotherapy preparation and administration in designated containers.
* Dispose all chemotherapy wastes as hazardous materials.
* Monitor client for symptoms of anaphylactic reaction Urticaria (hives), pruritus (itching), sensation of lump in the throat, shortness of breath.
* Assess for electrolyte imbalances.
* Teach client and family to report excessive fluid loss or gain, change in level of consciousness, increased weakness or ataxia, paresthesia, seizures, persistent, headache, muscle cramps or twitching, nausea and vomiting/diarrhea.
* Prevent extravasation of vesicant drugs, implement measures to treat extravasation of vesicant medications if it occurs.
* Teach the client to increase fluid intake to 2500 to 3000 ml/day unless contraindicated.
* Assess for signs of bone marrow depression: decreased White blood Cell and Red Blood Cell, granulocyte, platelet counts.
* Assess for signs of bleeding and infection.
* Monitor for signs of renal insufficiency.
* elevated urine specific gravity
* Abnormal electrolyte values
* Insufficient urine output (< 30 ml/hour)
* Elevated BP, BUN, Serum Creatinine

1. **NEOADJUVANT TREATMENT IN MANAGEMENT OF CANCER**

Neoadjuvant therapy is the administration of therapeutic agents before a main treatment. One example is neoadjuvant hormone therapy prior to radical radiotherapy for adenocarcinoma of the prostate. Neoadjuvant therapy aims to reduce the size or extent of the cancer before using radical treatment intervention, thus both making procedures easier and more likely to succeed and reducing the consequences of a more extensive treatment technique, which would be required if the tumor were not reduced in size or extent.

**NURSING RESPONSIBILITIES TOWARDS THE PATIENT**

* **Communication.** Truthful responses given in a nonjudgmental manner to questions and inquiries about unproven methods of cancer treatments may alleviate the [fear](https://nurseslabs.com/fear/) and guilt on the part of the patient and the family that they are not “doing everything we can” to obtain a cure.
* **Information.** The nurse should inform the patient and family should inform the patient and family of the characteristics common to fraudulent therapies so that they will be informed and cautious when evaluating other forms of “therapy”.
* **Collaboration.** The nurse should encourage the patient to inform their physicians about the use of therapies to help prevent interactions with medications and other therapies that may be prescribed