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Radiation

Patient name: _____

Admission: _____

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- I. **The client/caregiver can define radiation.**
 - A. It is the use of ionizing radiation to produce biologic effects to tissues and causing DNA damage. This damage then creates the loss of cellular reproduction.
 - B. Radiation can be given externally or internally.
 1. External radiation is administered by a machine directing rays to the part of the body involved.
 2. Internal radiation is given by placing radioactive material within the tissues or body cavity.
 - C. High-dose radiation can cause sterility. Issues of fertility and sexual function should be addressed.

- II. **The client/caregiver can list general health measures while receiving radiation.**
 - A. Provide good skin care.
 1. Inspect radiation treatment sites daily.
 2. Bathe carefully. Avoid using soap and friction over treated area. Do not wash off markings on the skin.
 3. Avoid using ointments or creams on the treated area unless prescribed by physician.
 4. Avoid extreme temperatures of hot or cold, including
 - Heating pads
 - Ultraviolet light
 - Whirlpool bath
 - Sauna or steam baths
 - Direct sunlight
 5. Protect skin from sunlight or wind exposure.
 6. Wear soft nonrestrictive clothing.
 7. If receiving treatment to head
 - Avoid use of harsh shampoo.
 - Avoid hair coloring or permanents.
 - Avoid use of curling irons and hair dryers.
 - B. Promote good nutrition.
 1. Eat a well-balanced diet with a variety of foods. Use frequent smaller meals.

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2. Weigh daily for early detection of weight loss.
 3. Avoid eating several hours before and after treatment to prevent nausea.
 4. Encourage fluid intake of up to 3000 ml/day.
 - C. Obtain adequate rest to prevent fatigue.
 - D. Prevent bleeding.
 1. Report early signs of bruises, bleeding gums, and so forth.
 2. Follow safety measures to prevent injuries.
 3. Avoid aspirin.
 - E. Prevent infection.
 1. Avoid crowds or persons with respiratory infection.
 2. Report any early sign of infection.
 - F. Notify physician of side effects from radiation.
 - G. Keep follow-up appointments with physician.
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- III. **The client/caregiver can list possible complications or side effects.**
 - A. Side effects are seen early in the skin, mucous membranes, and hair follicles. Later side effects are noted in the vascular system and muscles.
 - B. General effects are fatigue and loss of appetite.
 - C. Alopecia (loss of hair) can occur.
 - D. Skin has local redness and inflammation. There can be dry or moist shedding of epidermis layer of skin.
 - E. Changes can occur in the mucous membranes such as inflammation, dryness, or change and/or loss of taste.
 - F. Nausea or vomiting is possible.
 - G. Diarrhea can occur.
 - H. Cystitis (inflammation of bladder) can occur.
 - I. Pneumonitis (inflammation of the lungs) is possible.
 - J. There could be depression of bone marrow function, resulting in anemia.

(Continued)

RESOURCES

American Cancer Society
800-227-2345
www.cancer.org/

National Cancer Institute
www.cancer.gov/cancertopics/factsheet/Therapy/radiation

Cancer Information Service
800-4-CANCER (800-422-6237)
www.cancer.gov

LiveHelp, National Cancer Institute's live online assistance
<https://cissecure.nci.nih.gov/livehelp/welcome.asp>

Support groups

Counseling

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