



# Radiation Therapy 101: The Basics Every Nurse Needs to Know

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- Radiation dosage is measured in terms of
  - Ohms.
  - Volts.
  - Amps.
  - Centigray.
- The main difference between the side effects of radiation therapy and those associated with chemotherapy is that
  - Chemotherapy side effects are more toxic and take longer to recover from than radiation side effects.
  - Chemotherapy side effects are systemic, but radiation side effects are more localized.
  - Patients receiving radiation therapy more frequently require breaks from treatment for side-effect management than do patients receiving chemotherapy.
  - With appropriate medication and rapid nursing intervention, the side effects of radiation therapy can be eliminated, whereas chemotherapy side effects cannot.
- Mr. Smith will receive an extended course of radiation therapy for a nasopharyngeal tumor that will last seven weeks with a total accumulated dose of 7,000 cGy. In preparing the teaching plan for Mr. Smith, the nurse would want to include what information?
  - Xerostomia will be transient, and Mr. Smith can expect normal salivary function to return when his radiation treatments are complete.
  - Xerostomia will be permanent and require a lifestyle adjustment and possible medical intervention.
  - Mr. Smith will not need to worry about xerostomia because he is not scheduled for an interstitial implant.
  - With aggressive oral hygiene, prompt nursing intervention, and dietary modifications, xerostomia will not be problematic.
- Brachytherapy can best be defined as
  - Use of sealed sources of radioactive material placed in or near the tumor site.
  - Administration of IV medication that serves as a radioprotectant.
  - Administration of external beam radiation therapy via linear accelerator twice per day to achieve control of a rapidly growing tumor.
  - Increasing tissue temperature levels to allow tumor cells to be more radiosensitive and yield a higher cell kill rate.
- Which of the following conditions is most radiosensitive?
  - Metastatic melanoma
  - Intracranial glioblastoma multiforme
  - Low-grade stage I or II non-Hodgkin's lymphoma
  - Renal cell tumor
- Which of the following oncologic emergencies does not respond to radiation therapy?
  - Superior vena cava syndrome
  - Spinal cord compression
  - Increased intracranial pressure secondary to tumor effect
  - Tumor lysis syndrome
- Mr. Jones, a 62-year-old man, is newly diagnosed with prostate cancer. He is being discharged following an acute attack of nephrolithiasis. Previously, he had decided to get an iodine-125 prostate seed implant, which he is scheduled to receive in one month. Prior to his discharge, he confides that he is worried about the recovery time involved with the upcoming implant surgery. He says that he needs to return to work as soon as possible to support his wife and daughter, who is pregnant and recently moved her family in with them because of financial difficulties. What would be the oncology nurse's best response?
  - "Because of your recent nephrolithiasis, you probably will not be having that implant. Therefore, your concerns about missing work are unnecessary."
  - "It sounds like you have a lot on your mind. I'll contact social services and see if they can intervene on your behalf."
  - "Your recovery may take months, but your job will be safe as a result of legislation enacted under the Americans with Disabilities Act."
  - "How much contact will you have with your daughter while she is living with you and your wife?"
- Mrs. Butler just finished six weeks of external beam radiation treatments for breast cancer on the left side. Mr. and Mrs. Butler are celebrating by going

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