

JUST IN TIME TRAINING FOR RADIOACTIVE PHARMACEUTICALS AT MUHC

ATTENTION: This document is intended to provide brief radiation safety training to individuals who may handle radioactive patients and provide care during medical emergencies. The patient has been administered a radioactive pharmaceutical (radiopharmaceutical), and instructions should be followed to ensure your radiation exposure is minimized.

There are three main principles in radiation safety:

- **TIME:** You will receive more dose from the radiation exposure the longer you spend with the patient. Try to work efficiently and minimize the amount of time you provide patient care.
- **DISTANCE:** Radiation exposure rates will decrease the farther away you are. Standing directly next to a patient will give you more radiation dose than standing one foot away from that same patient. Do not stand next to the patient if you are not directly providing care.
- **SHIELDING:** Radiation exposure can decrease if materials that block the radiation are in between you and the patient. However, there are not any practical shielding materials needed when providing emergency patient care. The patient's body will provide some shielding.

Other important concepts:

- Radiopharmaceuticals distribute throughout the body and can be eliminated, just like any other drug!
- Any excreta from the patient could be radioactive, such as sweat, saliva, urine, and feces.
- To minimize radioactive contamination, do the following:
 - Wear gloves when handling the patient. Double gloves are not required, but you may find them useful.
 - If you need to lift the patient, gowns can minimize the amount of contamination on your skin and clothing.
 - Wash your hands after handling the patient.
- Lead aprons are a type of shielding material and are not necessary when handling radioactive patients. They may even hinder your ability to provide care with little or no added benefit.
- If you are pregnant, you have the right to discuss with your supervisor and request to not provide patient care.
- Radiation dose describes the amount of damage done to your DNA from exposure to sources of radiation. The main long-term risk from radiation exposure is cancer. The amount of dose you will receive when providing emergency care is negligible.
- **While we want to minimize your radiation exposure and the spread of contamination, medical emergencies and overall patient health should be the priority!**

If there are any concerns about handling the patient, containing the spread of contamination, or minimizing your radiation dose, contact Nuclear Medicine or EHS Radiation Safety.

Nuclear Medicine: (573) 882-7955

Environmental Health & Safety, Radiation Safety: (573) 882-7018 ext. 3