

RADIATION SAFETY GUIDELINES

Pluvicto, Lutathera, and Radioactive Iodine

YNHHS Radiation Safety Contact Numbers		
Delivery Network	Contact	Alternate Contact
Yale New Haven	203-688-2950	475-241-1205
Bridgeport	203-688-2950	475-241-1205
Greenwich	203-863-4468	203-200-3946
Lawrence & Memorial	860-442-0711/2608	203-200-3946
Westerly	401-348-3295	203-200-3946

Clinical radiation safety precautions to take when providing care to patients receiving radiopharmaceutical therapy.

NOTE: EMERGENT AND LIFE-SAVING CARE SHOULD NOT BE DELAYED DUE TO RADIATION PRECAUTIONS.

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General Radiation Safety

The two basic concepts discussed related to ionizing radiation are **exposure** and **contamination**.

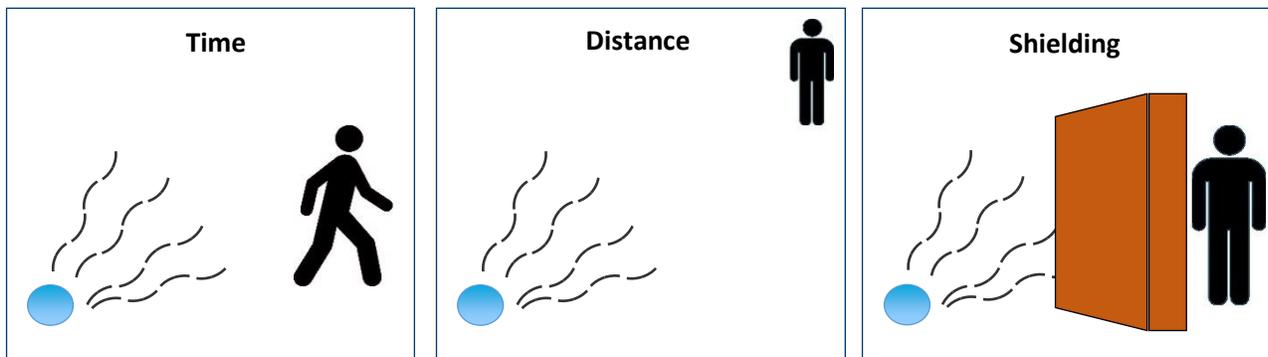
Exposure - Refers to the energy given off by a radioactive material.

Contamination - Refers to radioactive material on a person or item.

Contamination control is the primary concern for healthcare staff interacting with radiopharmaceutical therapy patients after treatment. Appropriate use of PPE and handling of **contaminated** waste are the best controls for protecting staff and controlling the spread of any **contamination**. Follow universal precautions when caring for **contaminated** patients.

Personal Protective Equipment: Standard PPE for situations involving potential radioactive **contamination** include **gloves, shoe covers, and gown**. Double gloving is recommended for handling **contaminated** body fluids.

Exposure from radiopharmaceutical therapy patients to medical staff is low and additional countermeasures are typically not needed. If controls are determined to be necessary they will follow the basic concepts of **time, distance, and shielding** as appropriate to the radiation hazard. If necessary, **exposure** precautions will be included in specific radiopharmaceutical sections or determined by the radiation safety office.



Pluvicto (Lu-177 vipivotide tetraxetan)

PLUVICTO™ (lutetium Lu 177 vipivotide tetraxetan) is a radiopharmaceutical medication used to treat adults with prostate cancer.

PLUVICTO™ treatment is given every 6 weeks and is excreted through the kidneys. Detectable amounts of radiation can be present several days in urine, saliva, emesis, blood and other bodily fluids such as ascites.

The following precautions should be followed for 7 days after treatment:

- Use universal precaution in all patient interactions, and when handling blood and bodily fluids
- Patient excreta (e.g. urine, stool, and emesis) can be safely flushed down toilets, flushing twice to assure fully emptied
 - Items used for urine, stool, and emesis collection must be placed in a dedicated waste bin to prevent removal in ordinary waste streams
- If patient has urinary catheter with urine drainage bag, or urostomy with urine drainage bag, the urine may be emptied and flushed, but the drainage bag must be discarded as radiation waste in a dedicated trash container.
- Save bodily fluid from procedures, such as paracentesis, in a sealed container and store separately from standard waste streams (e.g. dirty utility room), and label “Hold for Radiation Safety Department”.
- Contact Radiation Safety Office or Nuclear Medicine department for disposal instructions.
- Treatment room should be held until cleared by the radiation safety office or nuclear medicine for return to use.

Radiation Safety Department		
Delivery Network	Primary Office	Alternate
Yale New Haven Hospital	203-688-2950	475-241-1205
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If the patient presents to your emergency department/urgent care center, please contact the patient’s attending oncologist of record (Dr. Petrylak, Kim, Hurwitz), or the on-call provider immediately to discuss patient’s condition and care needs.

SMILOW GU/GI PHONE NUMBER: 203-200-4822

Lutathera (Lu-177 dotatate)

LUTATHERA® (lutetium Lu-177 dotatate) is a radiopharmaceutical medication used to treat adults with gastroenteropancreatic neuroendocrine tumors (GEP-NETs) that are positive for the hormone receptor somatostatin.

LUTATHERA® treatment is given every 8 weeks and excreted through the kidneys. Detectable amounts of radioactive material can be present in patient excreta for several days after infusion.

The following precautions should be followed for 7 days after treatment:

- Use universal precaution in all patient interactions, and when handling blood and bodily fluids
- Patient excreta (e.g. urine, stool, emesis) can be safely flushed down toilets, flushing twice to assure fully emptied
 - Items used for urine, stool, and emesis collection must be placed in a dedicated waste bin to prevent removal in ordinary waste streams
- Save bodily fluid from procedures, such as paracentesis, in a sealed container and store separately from standard waste streams (e.g. dirty utility room), and label “Hold for Radiation Safety Department”
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SMILOW GI PHONE NUMBER: 203-200-4422

Iodine-131

Radioactive Iodine (I-131 Sodium Iodide), often referred to as RAI, is a radiopharmaceutical commonly used in the treatment of thyroid diseases. Patients with hyperthyroidism or thyroid cancer may receive treatment with RAI for the care of their disease.

RAI is most often given as a single administration but multiple administrations may be necessary for a small number of patients. Detectable amounts of radioactive material can be present in patient excreta (e.g. urine, saliva, sweat) for several days post administration.

The following precautions should be followed for 7 days after treatment:

- Place patient in single room with dedicated bathroom if possible
- Gown, gloves, and shoe covers should be worn for all patient interactions
 - Remove and dispose PPE in dedicated waste bins
- Patient excreta (e.g. urine, stool, emesis) can be safely flushed down toilets, flushing twice to assure fully emptied
- Items used for urine, stool, and emesis collection must be placed in a dedicated waste bin to prevent removal in ordinary waste streams.
- Contact Radiation Safety Office or Nuclear Medicine department for disposal instructions.
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