

Radiation Exposure

Aliases

None noted

Patient Care Goals

1. Prioritize identification and treatment of immediately life-threatening medical conditions and traumatic injuries above any radiation-associated injury
2. Identify and appropriately treat acute radiation injury
3. Reduce risk for contamination of personnel while caring for patients potentially or known to be contaminated with radioactive material

Patient Presentation

Inclusion Criteria

1. Patients who have been acutely exposed to ionizing radiation from accidental environmental release of a radioactive source
2. Patients who have been acutely exposed to ionizing radiation from a non-accidental environmental release of a radioactive source
3. Patients who have been contaminated with material emitting ionizing radiation

Exclusion Criteria

1. Patients exposed to normal doses of ionizing radiation from medical imaging studies
2. Patients exposed to normal doses of ionizing radiation from therapeutic medical procedures

Patient Management

Assessment

1. Don standard PPE capable of preventing skin exposure to liquids and solids (gown and gloves), mucous membrane exposure to liquids and particles (face mask and eye protection), and inhalational exposure to particles (N95 face mask or respirator)
2. Identification and treatment of life-threatening injuries and medical problems takes priority over decontamination
3. Do not eat or drink any food or beverages while caring for patients with radiation injuries until screening completed for contamination and appropriate decontamination if needed
4. Use caution to avoid dispersing contaminated materials
5. Provide appropriate condition-specific care for any immediately life-threatening injuries or medical problems

Treatment and Interventions

1. If patient experiences nausea, vomiting, and/or diarrhea:
 - a. Provide care, per [Nausea-Vomiting Guideline](#)
 - b. Document the time gastrointestinal symptoms started
2. If seizure occurs:
 - a. Consider a primary medical cause or exposure to possible chemical agents unless indicators for a large whole-body radiation dose (greater than 20 Gy (Gray)), such as rapid onset of vomiting, are present