

3 FACTS ABOUT RADIOPHARMACEUTICAL INJECTIONS

Findings from the Journal of Pharmacology Research & Perspectives Case Report

A patient was extravasated with a high dose of Tech-99, a commonly used radioisotope, resulting in injury and an unusable image.

The report highlights the importance of recognizing and managing such events to minimize patient harm and improve patient outcomes in nuclear medicine practice.

Nuclear medicine centers currently do not follow best practices for administering and monitoring injections and mitigating extravasations.

3 Facts

1. When injections are not monitored, patients may receive unnecessary radiation exposure, and inaccurate images may cause misdiagnosis.
2. Extravasations can cause adverse effects, including skin and tissue damage and pain.
3. Few guidelines address the management of extravasations involving radiopharmaceuticals.



What Are Radiopharmaceuticals?

Radioisotopes, like ^{99m}Tc (Tech-99), when paired with a drug form radiopharmaceuticals that are used in nuclear medicine scans to provide insight into what is going on inside the body.



What is An Extravasation?

- Extravasation occurs when the radiopharmaceutical is misadministered into the tissue instead of the vein.
- Misplaced radiopharmaceuticals lead to inaccurate imaging scans, which can result in missed diagnoses.
- Unintended tissue exposure to radiation can be harmful and may lead to skin and underlying tissue damage and a secondary cancer developing.

TAKE ACTION

Nuclear Medicine
Clarification Act
HR6815



- This legislation directs the Nuclear Regulatory Commission (NRC) treat extravasations like any other accidental exposure. It also ensures transparency in care, protects patients from harm, and gives hospitals a grace period to strengthen their nuclear medicine administration procedures and reduce their extravasation rates.
- By monitoring nuclear medicine injections, hospitals can identify when a large extravasation happens and take the appropriate steps to mitigate the harm to the patient.
- By requiring providers to report large extravasations like they must do for all other accidental exposures, the NRC will identify those hospitals that have a high extravasation rate. Providers will be expected to reduce extravasations, leading to improved patient care.