

Nuclear Medicine Can Trigger Security Alarms

A well known effect for those who work at US DOE secure sites.

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Patients treated with radioactive material face an increased risk of triggering security alarms because more guards are being equipped with sensitive radiation detectors, a report said Tuesday.

It said nuclear medicine can persist in the body for up to three months and urged patients to carry documents letting guards know the source of the radiation when they are stopped at border crossings and other points of entry.

"The nuclear medicine community has been aware that patients set off detectors, but now we expect it to become a more common occurrence with the increasing number of extremely sensitive portable Homeland Security radiation detectors deployed among security personnel," said Lionel Zuckier, a doctor and radiology professor at the New Jersey Medical School.

"Our study helps estimate the amount of time following a procedure that these detectors can still be triggered," he added.

His report, released in Chicago at the annual meeting of the Radiological Society of North America, estimated that nuclear material used as tracers in some scans to detect cancer is gone in less than 24 hours.

But material used for bone and thyroid scans can persist for three days while thallium used in cardiac exams can stick around for up to 30 days, he said. Iodine used as therapy for thyroid problems can be traced up to 95 days later.

The Society of Nuclear Medicine and the U.S. Nuclear Regulatory Commission recommend that hospitals develop an official letter or card indicating what type of nuclear medicine procedure a patient received and whom to call at the hospital for verification, Zuckier said.

"Physicians need to make their patients aware of the need to carry proper documentation following a nuclear medicine procedure," he said.

In 2002 there were 18.4 million nuclear medicine procedures performed in the United States, the report said.