

Maximum Dose Rates for Hospital Discharge

Radionuclide	Treatment	Maximum Dose Rate at Three Feet	
		mSv/hr	mR/hr
Technetium-99m	Used in 90% of all nuclear medicine procedures, including evaluation of the heart, brain, thyroid, lungs, liver, spleen, kidneys, gall bladder, bones and blood flow.	0.58	58
Samarium-153	Alleviate bone cancer pain	0.30	30
Copper-64	Cancer, metabolic disorders	0.27	27
Iodine-123	Thyroid disease	0.26	26
Copper-67	Cancer	0.22	22
Gold-198	Cancer, rheumatoid arthritis	0.21	21
Rhenium-188	Rare thyroid cancer, alleviate metastatic bone pain	0.20	20
Indium-111	White blood cell function	0.20	20
Thallium-201	Heart disease	0.19	19
Gallium-67	Tumors, internal abscesses	0.18	18
Scandium-47	Cancer	0.17	17
Rhenium-186	Alleviate metastatic bone pain, rheumatoid arthritis	0.15	15
Silver-111	Cancer	0.08	8
Iodine-131	Thyroid, liver, kidney, urinary tract disease	0.07	7*
Strontium-89	Metastatic prostate cancer	0.04	4
Palladium-103	Prostate cancer	0.03	3
Ytterbium	Prostate cancer	0.02	2
Chromium-51	Red blood cell function	0.02	2
Iodine-125	Prostate cancer, brain tumors, kidney disease, deep vein thrombosis	0.01	1
Iridium-192	Cancer	0.008	0.8
Fluorine-18	PET scans (discharge guidance not available)	–	–

*May be as high as 30 mR/hr in some patients

Source: Nuclear Regulatory Commission

Nuclear Medicine Procedures and Radiation Pagers

Quick Tips for Police and Security Officers

Nuclear medicine patients can set off a radiation pager for several weeks after treatment.

- Patients receive a tiny amount of radioactive substance, called a radionuclide, during the procedure.
- Most radionuclides emit gamma radiation. Since radiation detectors screen for gamma rays, patients who've had radionuclide treatment could activate a radiation alarm.

People who've had x-rays or CAT scans would *not* trip a radiation detector. Neither would people who've had MRIs because the exam doesn't use radiation.

The amount of radiation detected can vary based on time, distance, shielding and dose.

A patient's radiation level must be below *58 millirem/hour at three feet* before he or she can be discharged from the hospital.

For more information, visit nyc.gov/health or call 311 and ask for Radiation.

Always call 911 in an emergency.