

NUCLEAR MEDICINE PATIENT RELEASE SOFTWARE

NMPRS is a winner! Effortless, efficient, and an unbeatable development in maintaining compliance with the new patient release criteria, it's an outstanding assist for practitioners of nuclear medicine. It performs required calculations, generates patient instruction sheets, and creates file documentation—all based on the new Reg. Guide 8.39 guidelines—automatically!

The NMPRS Patient release calculator is quick and easy to use—just enter patient's name (or other ID); drop-down menus lead you through the simple patient-specific questionnaire. Select release criteria based on administered activity, retained activity, measured dose rate or, patient-specific dose calculations.

Nuclear Medicine Patient Release Software

File View Setup Help

Patient Identifier: Test patient

Patient Age: 21 Years Patient Sex: Male Female Breastfeeding? Yes No

Treatment for: Hyperthyroidism Cancer Does Patient Sleep alone? Yes No

Administered Dose: 50 mCi ± 5% Isotope: I-131 Form: I-131 NaI

Date of Administration: 06/20/2000 Today Measured Thyroid Uptake Fraction: 10%

Time of Administration: 1:57:06 PM Now Measured Dose Rate @ 1 meter: 0 mR/h

Background Dose Rate: 0 mR/h

Release Based On:

Administered Activity Retained Activity Measured Dose Rate Patient-Specific Dose Calculations

Measured uptake Default Uptake

Measured uptake Default Uptake

Nuclear Medicine Technologist: Jane Q. Public Physician: Dr. Strangelove

View Instructions View Calculations Print Both

Clear to release Instructions Required TEDE = 465.1 mrem

NMPRS automatically generates patient release information and patient instruction sheets, and supplies calculation sheets for each treatment. All forms may be saved to a file and printed.

Calculational Factors

	Time from administration	Occupancy factor	Distance from others (cm)
Split initial 8 hours at <input type="text" value="2"/> hours	0 to Z hours	<input type="text" value="0.75"/>	<input type="text" value="100"/>
	Z to 8 hours	<input type="text" value="0.75"/>	<input type="text" value="100"/>
Split 8 hours to total decay at <input type="text" value="3"/> days	8 hours to 3 days	<input type="text" value="0.25"/>	<input type="text" value="100"/>
	3 days to decay	<input type="text" value="0.25"/>	<input type="text" value="100"/>

Justification:

The patient is able to fully comply with the above occupancy factors and distances.

Minimum number of precaution days

Minimum number of "sleep alone" days

Minimum number of months to discontinue breastfeeding Default to complete cessation

Recommended distance to maintain from others feet meters centimeters

A fully referenced, "web-style" copy of the complete text of US NRC Reg. Guide 8.39 (Release of Patients Administered Radioactive Materials) is included in the software, and is accessible with a single click of your mouse!



Print



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U.S. Nuclear Regulatory Commission

REGULATORY GUIDE

Office of Nuclear Regulatory Research

Regulatory Guide 8.39 Release of Patients Administered Radioactive Materials

(Draft issued as DG-8015)

A. INTRODUCTION

Section 35.75, "Release of Individuals Containing Radiopharmaceuticals or Permanent Implants," in 10 CFR Part 35, "Medical Use of Byproduct Material," permits licensees to "authorize the release from its control of any individual who has been administered radiopharmaceuticals or permanent implants containing radioactive material if the total effective dose equivalent to any other individual from exposure to the released individual is not likely to exceed 5 millisieverts (0.5 rem)."

Further, 10 CFR 35.75(b) requires that the licensee "provide the released individual with instructions, including written instructions, on actions recommended to maintain doses to other individuals as low as is reasonably achievable if the total effective dose equivalent to any other individual is likely to exceed 1 millisievert (0.1 rem). If the dose to a breast-feeding infant or child could exceed 1 millisievert (0.1 rem) assuming there were no interruption of breast-feeding, the instructions shall also include (1) guidance on the interruption or discontinuation of breast-feeding and (2) information on the consequences of failure to follow the guidance."

In addition, 10 CFR 35.75(c) requires that the licensee "maintain a record of the basis for authorizing the release of an individual,

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