

Department: Radiology	Section: Nuclear Medicine	Effective Date: 02/2001
Procedure Number: 18.8.1.20		Revision: 09/2014

**THYROID CARCINOMA THERAPY
RELEASE DETERMINATION**

Purpose: The following process will be used to determine when a patient undergoing treatment with I-131 for thyroid carcinoma is safe to be discharged.

Patient Name: _____ Date: _____ (Admin.)

Dose Admin.: _____ mCi Thyroid Uptake: _____ %(performed)

Occupancy Factor of 0.25 is Assumed

ASSUMPTIONS: Patient can maintain prudent distance from others for at least the First two (2) days.

Patient will sleep alone in a room for at least first night.

Patient will not travel by mass transit or airplane for first day.

Patient will not travel for prolonged car trip for two (2) days.

Patient will have sole use of bathroom for two (2) days.

Patient will drink plenty of fluids for two (2) days.

- If thyroid uptake is measured: Dose to family members is calculated as follows:

$$\text{Dose (mrems)} + (7.6)(\text{_____ mCi})\{0.135 + ((0.0777)(1-\text{Thyroid Uptake})) + ((1.774)(\text{Thyroid Uptake}))\}$$

$$= (7.6) (\text{_____ mCi}) \{0.135 + ((0.0777) (1-\text{_____})) + ((1.774)(\text{_____}))\}$$

Dose = _____ mrem

- For Carcinoma patients a thyroid uptake of 5% (0.05) may be used in lieu of uptake measurement. The calculation may then be simplified to the following:

$$\text{Dose (mrems)} = (2.265)(\text{_____ mCi})$$

Dose = _____ mrem

Limit for patient release: the dose must be equal to or less than 500 mrem

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