

# Iodine-131 Therapy – In-Patient Record

Facility: \_\_\_\_\_

Patient's Name: \_\_\_\_\_ Room No: \_\_\_\_\_

Date: \_\_\_\_\_ Patient's Age: \_\_\_\_\_ Referring Diagnosis: \_\_\_\_\_

Referring Physician: \_\_\_\_\_ P.C.C.: \_\_\_\_\_

Assigned Nurses: \_\_\_\_\_ AM \_\_\_\_\_ PM \_\_\_\_\_ MN

**Patient is NOT Pregnant or Breastfeeding**

## **RADIOPHARMACEUTICAL DATA**

Radionuclide: **Iodine-131** Liquid: \_\_\_\_\_ Capsule: \_\_\_\_\_

Prescribed Activity: \_\_\_\_\_ mCi Cal. Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ Time: \_\_\_\_\_ AM / PM

\_\_\_\_\_  
Written Directive: Prepared, Signed and Dated by Authorized User

Signature: \_\_\_\_\_

## **ADMISTRATION DATA**

Method: \_\_\_\_\_ **Oral** Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ Time: \_\_\_\_\_ AM / PM

Administered Activity: \_\_\_\_\_ mCi \_\_\_\_\_ Within +/- 10% of prescribed

Complications: \_\_\_\_\_ None Noted: \_\_\_\_\_

## **ROOM PREPARATION**

Protective Coverings: \_\_\_\_\_ **Plastic** Floors \_\_\_\_\_ **Plastic** Bathroom

\_\_\_\_\_ **Blue Pads** Bedside Table \_\_\_\_\_ **Glove** Phone

\_\_\_\_\_ **Glove** Call Button \_\_\_\_\_ **Blue Pads** Chair

Waste Containers: \_\_\_\_\_ **Two (2) Waste Receptacles or Carts: Trash & Linen**

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Patient's Name: \_\_\_\_\_ Room No.: \_\_\_\_\_

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ Administered Dose: \_\_\_\_\_ mCi

## IODINE -131 TX DUTY CHECK LIST

PRE-ADMINISTRATION	ADMINISTRATION	POST-ADMINISTRATION
_____ Room Prep.	_____ Pt. Monitoring	_____ Pt Discharge Briefing
_____ Pt. Briefing	_____ Outside Rm. Mon	_____ Family Briefing
_____ Nursing Briefing	_____ Inside Room Mon.	_____ Rm Waste Removal
_____ Personnel Monitoring	_____ Residual Waste Mon	_____ Rm Survey
_____ Consent Signed	_____ Notify Staff of Dosing	_____ Recommendations
_____ Written Directive	_____ Bioassay @ 24 72 hr	_____ Record of Release
_____ (+) Patient ID	(If In-patient only)	_____ Room Released
_____ (-) Pregnancy Test / Breastfeeding		

## DAILY RESIDUAL IODINE MONITORING

### Patient Specific Residual Activity Calculation

Initial Conversion Factor "F" = (Administered Activity) / (mR/hr @ 1m with Patient Standing)

Daily Residual Activity = ( F ) (Daily mR/hr @ 1 m)

INITIAL CONVERSION FACTOR F = \_\_\_\_\_ mCi / \_\_\_\_\_ mR/hr @ 1m = \_\_\_\_\_

### INITIAL SURVEY

DATE	TIME	EXPOSURE RATE	Administered Act.
_____	_____	_____ mR/hr	_____ mCi

### DAILY SURVEYS

DATE	TIME	EXPOSURE RATE	Residual Activity
_____	_____	_____ mR/hr	_____ mCi
_____	_____	_____ mR/hr	_____ mCi
_____	_____	_____ mR/hr	_____ mCi
_____	_____	_____ mR/hr	_____ mCi

### 10CFR35.75

- Patients may be released if:
- The measured dose rate at 1 meter is at or below 7 mR/hr.
  - The residual activity in the patient is less than 33 mCi.
  - Administered activity less than 33 mCi
  - Calculated dose to others less than 500 mrem

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## FINAL ROOM SURVEY

Patient Name: \_\_\_\_\_ Room No.: \_\_\_\_\_

Date: \_\_\_/\_\_\_/\_\_\_ Cleanup Start Time: \_\_\_\_\_ Cleanup Finish Time: \_\_\_\_\_

### FOLLOW IODINE - 131 THERAPY FINAL SURVEY PROCEDURE

1. With the patient removed from the room, record initial survey data from an EWGM meter.
2. Wipe smears for initial removable contamination are to be placed in appropriately marked test tubes.
3. Decontaminate with EDTA solution and wash rags the surfaces of the room fixtures, i.e. bed, bedside table, phone, call button, sink, toilet, etc.
4. Repeat steps 1 & 2 as per final survey procedure and record data below.
5. **Any area which is >200 dpm will require decontamination ALARA.**

<u>LOCATION / ITEM</u>	<u>INITIAL</u>		<u>POST-DECONTAMINATION</u>	
	<u>mR/hr</u>	<u>dpm</u>	<u>mR/hr</u>	<u>dpm</u>
<u>BACKGROUND</u>	_____	_____	<u>N/A</u>	<u>N/A</u>
<u>PHONE</u>	_____	_____	_____	_____
<u>CALL BUTTON</u>	_____	_____	_____	_____
<u>BED</u>	_____	_____	_____	_____
<u>BEDSIDE TABLE</u>	_____	_____	_____	_____
<u>SINK</u>	_____	_____	_____	_____
<u>SINK HANDLES</u>	_____	_____	_____	_____
<u>TOILET BOWL RIM</u>	_____	_____	_____	_____
<u>TOILET SEAT</u>	_____	_____	_____	_____
<u>FLOOR</u>	_____	_____	_____	_____
<u>RAD WASTE</u>	_____	_____	_____	_____
<u>RAD LINEN</u>	_____	_____	_____	_____

\_\_\_\_\_ Room was decontaminated to background levels ALARA and released for normal use.

\_\_\_\_\_ Room is restricted for decay until: \_\_\_\_\_

Surveyor: \_\_\_\_\_ RSO: \_\_\_\_\_

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## IODINE - 131 RESIDUAL ACTIVITY CHART

**This chart is a generalized estimate of residual activity  
Patient Specific Activity Calculations Should Be Used**

All measurements are made with the same calibrated instrument each time at a distance of one (1) meter with the patient in the upright position or preferably standing. The chart below is for both "ideal point sources" and patients. Since humans do not conform to point source geometry the resultant exposure rate and corresponding mCi of Iodine - 131 remaining in vivo must take the attenuation of the gamma photons into consideration. Patients only approach point source geometry initially after administration.

<u>Measured mR/hr at one (1) meter</u>	<u>mCi of I - 131 point source</u>	<u>mCi of I - 131 patient &amp; attenuation</u>
40	182	235
35	159	206
30	136	176
25	114	147
20	91	118
15	68	88
10	45	59
9	41	53
8	36	47
7	32	41
6	27	35
5	23	29
4	18	23
3	14	18
2	9	12
1	4.5	5.8

$$\text{mCi of I-131 Pt Source} = \frac{X \text{ mR/hr @ 1 meter}}{0.22 \text{ mR/mCi-hr @ 1m}}$$

$$\text{mCi of I-131 Patient} = \frac{X \text{ mR/hr @ 1meter}}{0.17 \text{ mR/mCi-hr @ 1m}}$$

**It is highly suggested that data be normalized to each patient’s body habitus via the “Initial Conversion Factor” method of residual activity determination.**

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DAILY PATIENT ROOM DIAGRAM & SURVEY

ALL MEASUREMENTS ARE MADE WITH A CALIBRATED ION CHAMBER

**MAXIMUM BEDSIDE OCCUPANCY** \_\_\_\_\_ **MINUTES NOTED IN PATIENT CHART** \_\_\_\_\_

**COMMENTS:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**SURVEYOR:** \_\_\_\_\_ **DATE** \_\_\_\_\_ **TIME** \_\_\_\_\_