Jason D. Dunavant, CHP
Radiation Safety Officer

Georgetown University Hospital

MedStar Health

Department of Radiation Safety

August 29, 2007

03-30577-01
03035409/2007001

Penny Lanzisera
Health Physicist
U.S. Nuclear Regulatory Commission
Region 1
475 Allendale Road
King of Prussia, PA 19406

RECEIVED
REGION 1
2007 AUG 31 PM 12:46

Dear Ms. Lanzisera

Enclosed is the response to questions that were raised during the inspection on August 9-10, 2007of Georgetown University Hospital (GUH). You requested this information in the exit interview on August 10, 2007 for Nuclear Regulatory Commision (NRC) License Number 08-~~577~~-01. 30577 nmp

Additional information on the qualifications for authorized medical physicist Nicolas Recalde is included in Appendix 1. Mr. Recalde has two masters' degrees, a masters of science in physics from the University of South Carolina that was documented on the NRC Form 313A and a masters of science degree in medical physics from Paul Sabatier University in Toulose, France award in 1998. He also had medical physicst experience in Ecuador starting in 1995. Mr. Recalde has worked as a junior physicist since 1995 except for the four years he was a graduate student at the University of South Carolina (1999 to 2003). Mr Recalde's experience and training includes four years at Georgetown University Hospital 2004-2007, most of which was supervised by the previous chief clinical physicist, Azam Niroomand-Rad, PhD, DABR. In addition, Mr. Recalde has documented at least 22 days of short courses in medical physics in 1998 and 1999. While at GUH, Mr. Recalde participated in at least 100 hours of medical physics lectures that reviewed the Physics of Radiotherapy by Khan. These lectures include reviews of brachytherapy, high dose rate after-loaders, prostate implant and intravascular brachytherapy. Mr. Recalde's qualifications have been reviewed by the American Board of Radiology and he has taken Parts I and II of the Therapy Physics board exams.

Because of concerns raised during the NRC inspection that Mr. Recalde did not meet the qualifications, the Radiation Safety Committee rescinded his approval as an authorized medical physicist for NRC regulated activities. Mr. Recalde and his current employer were notified of this action. This action was taken because Mr. Recalde had

NMSS/RGN1 MATERIALS-004

3800 Reservoir Road, NW, Gorman Building - Suite 2040, Room 2047, Washington, DC 20007-2113
phone: 202 444 4049 • *fax:* 202 444 0069

never acted independently as an authorized medical physicist at GUH and thus will limit any impact should the NRC determine that Mr. Recalde is not fully qualified.

In the future, GUH will use the NRC's Licensing Guidance for Using NRC Form 313A Series of Forms. Specifically, documentation will be generated to details for the year of full time training and the year of full time experience.

A review of all inpatient iodine ablation patients in the last two years was made and two patients were identified who were released to hotels after receiving iodine-131 ablation therapy. The documentation for both patients in included in Appendix 2.

One patient completed the GUH iodine ablation questionnaire and indicated that she would be sharing a bathroom at a residential hotel. The decision was made to release this patient when her exposure rate at one meter of not more than 7 mR/h. This patient's exposure rate at discharge was less than 4.9 mR/h. (See Appendix 2, Annex A)

The second patient completed the questionnaire stating that he could comply with all of the guidance for early release at 14.3 mR/h. Additional instruction was provided to him due to his going to a hotel and his having a small child at home. The RSO at the time performed a dose calculation based upon his being below12 mR/h at one meter at the time of release. (See Appendix 2, Annex B). The dose assessment determined that the maximum dose to any member of the public would be 91 mrem.

An additional dose assessment was made right after the NRC Inspection in August 2007. Using equations B-3, B-4, and B-5 from NUREG 1556, volume 9, a curve fit was made using the initial dose rate and the release dose rate. Using a fast half life of 0.58 days with a fast fraction of 0.95, a slow half life of 7.3 days with a slow fraction of 0.05, an initial reading of 27 mR/h at 15:30 and a release reading of 11.7 mR/h at 09:30 the next day, it was determined that the patient would have checked into the hotel at 15:00 with an exposure rate of approximately 9 mR/h at one meter and with approximately 53 milliCuries of Iodine-131 in his body. It was determined using the model that if the patient checked out of the hotel 45 hours later (the maximum two day stay), his exposure rate would have been approximately 2 mR/h at one meter and would have had approximately 10 milliCuires still in his body.

In a worst case scenario, where the patient laid on his bed for the entire 45 hours of his hotel stay, and an individual in the next room laid on a bed within six feet, the maximum dose to the individual in the next room would have been approximately 52 mrem. Assuming one hour of maid service each day and using equation B-6 from NUREG 1556, volume 9, the worst case scenario for housekeeping would be an external dose of approximately 6 mrem and an internal dose of approximately 23 mrem.

GUH has started screening all ablation patients to ensure that if the patient indicates that they are going to a hotel that they will be held no more than 7 mR/h at one meter until clarification is received from the NRC.

Ms. Nancy Harrison at US Bank Corporate Trust Services was contacted on August 13, 2007. Ms. Harrison stated that she had the originals of the Standby Trust Agreement for GUH and that she would send one of the originals to the NRC. GUH received a copy of a memorandum from US Bank to the NRC Region I indicating that the original had been forwarded to the NRC on August 17, 2007.

A training session was held on August 13, 2007 with the Nuclear Medicine staff to review the proper operation of the Victoreen Ionization Chamber. The training included a review of the different modes of operation and how to recognize the different modes. A practical exercise using a Cs-137 check source was performed to ensure that the Nuclear Medicine staff could properly operate the survey meter.

The training also covered the procedures for properly returning unused radiopharmaceuticals to Cardinal Health's nuclear pharmacy. The training covered the use of the return form and the need to wait two days before returning any unused radioactive material. A review of the radiopharmaceutical return forms has been added to the monthly Nuclear Medicine Audit checklist.

In the Nuclear Medicine Hot Lab, all drawers containing radioactive material were marked as containing radioactive material during the inspection. The radioactive sharps containers were resituated so that they are farther away from Nuclear Medicine Staff working in the hot lab and an additional layer of lead bricks was added to the top of the sharps container shielding. A sign was posted instructing the Nuclear Medicine Staff on proper placement of the radioactive sharps containers. A lead lined container was placed under the sink for disposal of the ventilation atomizers. In addition, lead vinyl shielding was added to the existing steel wall between the waste container and the hot lab sink.

All containers of radioactive waste for decay-in-storage were labeled with an estimate of the activity of the radioactive material in addition to the isotope. In the future, all decay-in-storage containers of radioactive waste will be labeled with an estimated activity.

The Radiation Safety Committee permits were change to reflect that teletherapy is only performed using linear accelerators, and stereotactic radiosurgery is performed using a Cyberknife, and that the uses of radioactive material in nuclear medicine are qualified IAW 35.392, 35.394, and 35.396.

If you have any additional question, please contact me at 202-444-4534, facsimile at 202-444-0069, or e-mail at jdd2@gunet.georgetown.edu.

JASON D. DUNAVANT, CHP
Director, Radiation Safety

University of South Carolina

Let it be known to all

That the Board of Trustees by virtue of authority vested in it by the State of South Carolina upon recommendation of the Faculty of the

Graduate School

has conferred upon

Nicolas Aldunate Recalde

the degree of

Master of Science

Physics

together with all the rights, honors, privileges, and responsibilities to that degree appertaining.

Given at Columbia, South Carolina this 9th day of August in the year of Our Lord two thousand and three and in the two hundred and second year of the University's founding.

Andrew A. Sorensen
President

Mark Sanford
Presiding Officer, Board of Trustees

Gordon B. Smith
Dean

Thomas L. Stepp
Secretary of the University

Appendix 1

RÉPUBLIQUE FRANÇAISE
Ministère de l'Education Nationale,
de la Recherche et de la Technologie
ACADÉMIE DE TOULOUSE

UNIVERSITÉ PAUL SABATIER
TOULOUSE III

ATTESTATION

DIPLÔME D'ÉTUDES APPROFONDIES

Le Secrétaire Général de l'Université Paul Sabatier, soussigné, certifie que :

MONSIEUR RECALDE ALDUNATE NICOLAS

Né(e) le 13/ 08 /62 à IBARRA EQUATEUR NO INE 06O9K201VK8
EQUATEUR

a obtenu devant ladite Université le :

DIPLÔME D'ÉTUDES APPROFONDIES (D.E.A.)

Spécialité : RAYONNEMENTS ET IMAGERIE EN MEDECINE - PHY RADIO MEDICALE

Option :

Session : PREMIERE SESSION 1998

Mention : PASSABLE

Fait à Toulouse, le 15 DECEMBRE 1998

Pour le Président et par délégation
Le Secrétaire Général
Pour le Secrétaire Général et
pour ordre
Le Chef de la Division de la Scolarité

UNIVERSITE PAUL SABATIER TOULOUSE

Lina DOUARD

Sous aucun prétexte, il ne peut être délivré de duplicata de la présente attestation.
Il appartient à l'intéressé d'en établir une ou plusieurs copies
qu'il fait certifier conformes à l'original.

LABORIE TOULOUSE BALMA 95002 124830

BrainLABoratory

This is to certify that

Nikolás Recalde

has successfully completed the

BRAINSCAN XL CLINICAL TRAINING AT CHARITÉ HOSPITAL IN BERLIN

29th Sept. till 2nd October, 1998, 8 hours a day

&

4TH BRAINSCAN XL USER WORKSHOP

5th till 9th October, 1998 8 hours a day

Stefan Vilsmeier, President

Training Conductor

GREAT MINDS BrainLAB & You COME TOGETHER

varian

oncology systems customer support

Awards this

Certificate

of

Attendance

to

Nicolas Recalde

student

for attending the Varian

Machine Acceptance & Quality Assurance

course

on the dates

April 15, 1998 *to* ***April 24, 1998***

Keith Krugman

Vice President, Customer Support

Manager, Education Department

Certificate of Attendance

This Certifies that
Nicolas Recalde Aldunate
Attended the
Following
Applications Training Sessions for

VARiS

oSchedule	Ref# CAZ0228013	oAdministration	Ref# CAZ0228017
oChart	Ref# CAZ0228010	o	Ref#
oRegistration	Ref# CAZ0228009	o	Ref#
oTreatment	Ref# CAZ0228012	o	Ref#

Total Category A Credit: 13

Authorized Representative

29/01/99
Date

varian oncology systems

Participant's Social Security Number:
_____-_____-_____

PARTNERS FOR Life

Certificate of Attendance

This Certifies that

Nicolas Recalde Albunate

Attended the

Applications Training Session for Multileaf Collimator

This course is approved for 2.0 Category A CE Credits

Reference number CAZ0227003 by the ASRT Department of Education

Authorized Representative

26/01/99
Date

Participant's Social Security Number:

_____-_____-_____

varian
oncology systems

PARTNERS FOR Life

Certificate of Attendance

This Certifies that

Nicolas Recalde Aldunate

Attended the

Applications Training Session for C-Series Linear Accelerators

This course is approved for 2.0 Category A CE Credits

Reference number CA2166 by the ASRT Department of Education

Authorized Representative

25/01/99
Date

Participant's Social Security Number:

_____ - _____ - _____

varian
oncology systems

PARTNERS FOR Life

PATIENT RADIATION SURVEYS

Patient Name: [redacted] Room No: B3017

CJA Nuclide: I 131 Activity: ~~180~~ 182.32 mCi. Date/Time of Dosing: 01/24/06 @ ~~1550~~ 1450 h CJA

Dosing Personnel	Bioassay Dates / (Ok?: Y/N)
[redacted]	01/26 / Y
	01/26 / Y
	01/30 / Y
	01/26 / Y
	01/27 / Y

Dose Rate Readings in mrem/h:

A – One meter from stomach, pt standing erect
B – Maximum at 30 cm, head to waist*
C – Doorway at waist level
D – Adjacent Room No. 16
E – Adjacent Room No. 18
F – Hallway (highest value)

* If readings indicate an abnormal localization in the esophagus, throat or mouth, notify the Nuclear Medicine physician. Make survey at the time of dosing.

Date	01/24/06	01/25/06		
CJA **Time** 1450 ~~1550~~ h		0925 h		
A mR/h	20 mR	4.9		
B (initial)	250 mR			
C (initial)	10 MR			
D (initial)	I131 Tx			
E (initial)	0.47			
F	220 MR			
Surveyor	Alston, C.	Alston, C.		
Instrument	451P ET 6308	451B #6155		

Do not release the patient until the radiation level measured at one meter is not more than **7 millirem/hour or the value indicated on the attached worksheet** (cf.: Regulatory Guide 8.39).

Patient was provided written instructions for limiting doses to others by: C.J. Alston JMS
Final radiation level at one meter from the patient was 4.9 mrem/h.
Survey Meter: 451B S/N: 6155. Calibration Date: 02/23/05
Patient Released by C.J. Alston. Date: 01/25/06

PERSONAL INFORMATION WAS REMOVED BY NRC. NO COPY OF THIS INFORMATION WAS RETAINED BY THE NRC.

Appendix B Annexa

EXHIBIT 1
NUCLEAR MEDICINE DEPARTMENT
INFORMATION CONCERNING HOSPITALIZATION FOR PATIENTS ADMINISTERED RADIOACTIVE IODINE

The Nuclear Regulatory Commission has concluded that the radioactive iodine that you receive for therapeutic purposes will cause only small radiation exposures to others if you are released from the hospital in accordance with Nuclear Regulatory Commission guidelines. Special precautions are required for women patients nursing infants or small children. Exposures occur mainly if other people remain close to you (less than 3 feet) for long periods of time (at least one hour) during the first few days after you leave the hospital. The Nuclear Medicine Department will make measurements with a radiation detector to determine that you meet Nuclear Regulatory Commission guidelines prior to leaving the hospital.

Normally, these measurements indicate that a patient may be released less than 24 hours after receiving the dose of radioactive iodine. Thus you may only need to be in the hospital for one night. Sometimes, the measurements indicate that a patient does not meet the Nuclear Regulatory Commission's guidelines assuming normal contact and activities with other people. In those circumstances, you may need to remain for a second night. By answering the following questions and agreeing to follow the guidelines, you may be able to be released earlier because of your limited contact with other people.

1. Are you a woman nursing a small child or infant?

   Yes ____ No X

   NOTE: Nursing an infant or small child after receiving radioactive iodine will transfer the radioactive iodine from the mother to the child through the milk. Radioactive iodine ingested by the child will expose the thyroid of the child to potentially harmful levels of radiation. Lifelong medication may be required to prevent serious effects both mentally and physically if the child's thyroid receives a high dose of radiation. **If you are nursing a child, inform Nuclear Medicine personnel and we must reschedule your administration at a later date after you have permanently ceased nursing this child.**

2. Can you take care of yourself except for brief visits and not be in the same room with another person for more than three hours total during each of the first two days?

   Yes X No ____

   If no, briefly explain circumstances: _____

   _____

   _____

3. Will you be able to maintain distance from other people, including:
   - Sleeping alone for at least one night (recommend 3 nights)?
   - Avoiding kissing and sexual intercourse for at least 3 days?
   - Staying at least 3 feet away from people if you will be involved with them for more than an hour a day in the first 3 days?

   Yes X No ____

   If no, briefly explain circumstances: _____

4. Will you avoid travel by airplane or mass transit for the first day?

   Yes X No ____

   If no, briefly explain circumstances: _____

5. Will you avoid prolonged travel in an automobile with others for the at least first two days?

   Yes X No ____

   If no, briefly explain circumstances: _____

6. Will you have sole use of a bathroom for at least two days?

   Yes ____ No X

   If no, briefly explain circumstances: I am living in a one-bdrm residential hotel w/ my husband. However he can stay with friends if necessary. We can do housekeeping & laundry separately, if necessary.

I have read these guidelines, understand the instructions and agree to avoid contacts in accordance with my answers to items 2 through 6. [Note: If you can not manage at home and avoid close contact, it may be necessary for you to remain in the hospital up to an additional 24 hours.]

American Foreign Service Association

Signa[redacted] Date: 1.23.06

(Patient or other person in accordance with hospital informed consent policy.)

PERSONAL INFORMATION WAS REMOVED BY NRC. NO COPY OF THIS INFORMATION WAS RETAINED BY THE NRC.

EXHIBIT 2

WORKSHEET FOR DETERMING ACCEPTABLE DOSE RATES FOR RELEASE OF PATIENTS ADMINISTERED RADIOACTVE IODINE

I. Regulatory Limit

10 CFR 35.75 permits release of patients if the **total effective dose equivalent to any other individual from exposure to the released** individual is not likely to exceed 0.5 rem.

II. Acceptable methods

Acceptable methods are described in Regulatory Guide 8.39 "*Release Of Patients Administered Radioactive Materials.*"

III. Calculations

Calculations will be based on **Equation B-1from this guide.**

$$D(t) = \frac{34.6\ \Gamma\ Q_0\ T_p\ E\ (1 - e^{-0.693t/Tp})}{r^2}$$

where

D(t) = Accumulated dose to time t, in rem
34.6 = Conversion factor of 24 hrs/day times the total integration of decay (1.44)
Γ = Exposure rate constant for a point source, R/mCi x hr at 1 cm
Q_O = Initial activity at the start of the time interval
Tp = Physical half-life in days
E = Occupancy factor that accounts for different occupancy times and distances when an individual is around a patient
r = Distance in centimeters. This value is typically 100 cm
t = exposure time in days

However the dose rate in R/hr for the effective remaining activity Q_m at time t_m (when a measurement is made) is by the definition of Γ:

$$\frac{d\ D(t)}{dt} = \frac{\Gamma\ Q_m}{r^2} \quad \text{or} \quad Q_m = \frac{d\ D(t)}{dt} \times \frac{r^2}{\Gamma}$$

and since the dose to infinity after the dose rate measurement at time t_m is:

$$D_\infty = \frac{34.6\ \Gamma\ Q_m\ T_p\ E\ (1 - 0)}{r^2}$$

$$\text{Then } D_\infty = (dD/dt)*34.6*T_p*E$$

For the purposes of this worksheet:

D = 500 millirem

T_p = 8.08 days

And the acceptable dose rate is therefore

dD/dt = 500/(34.6*8.08*E) = 1.79/E mrem/hour

E = .25 or 0.125 depending on the patient circumstances.

IV. Evaluation (Sign for the appropriate dose rate for this administration)

1. The patient has not submitted information about possible contacts with other people, we can assume without further justification the occupancy factor is 0.25. [Reference: Regulatory Guide 8.39 "*Release Of Patients Administered Radioactive Materials*" and 10 CFR 35.75]

   The measured dose rate at 1 meter must be equal to or less than 7 millirem/hour

2. If the patient has submitted information about possible contacts with other people and has answered yes to all questions 2 – 6 of the questionnaire, we can assume the occupancy factor is 0.125. [Reference: Section B.1.2, "Occupancy Factors To Consider for Patient-Specific Calculations," Regulatory Guide 8.39 "*Release Of Patients Administered Radioactive Materials*".

   The measured dose rate at 1 meter must be equal to or less than 14.3 mrem/hr for thyroid patients.

   Signature of person making evaluation _____

3. If the patient has submitted information about possible contacts with other people but has answered no to any of the questions 2 – 6 of the questionnaire, the Radiation Safety Officer or Deputy Radiation Safety Officer will make the determination of acceptable dose rate. [Reference: Section B.1.2, Regulatory Guide 8.39 "*Release Of Patients Administered Radioactive Materials*".

   The measured dose rate at 1 meter must be equal to or less than 7 millirem/hour

   Basis:

   _____

   _____

   _____

Signature of Radiation Safety Officer _____

John E. Glenn, PhD
Radiation Safety Officer

Georgetown University Hospital

Radiation Safety

June 7, 2006

Radiation Safety Precautions at Home and Elsewhere for Patients Who Have Received Therapeutic Amounts of Radioactivity

Note: **Please carefully read and follow the instructions in this document. If you or your health care providers have any questions or concerns regarding the radionuclide therapy you have received, please contact:**

Nuclear Medicine Attending Physician
(202) 444-3360
Telephone number

[redacted] received a therapeutic dose of **5735 MegaBecquerels (MBq) (155 millicuries (mCi))** of **Iodine-131 Sodium Iodide** at Georgetown University Hospital on June 6, 2006 at 3:30 p.m. and should observe the following radiation safety precautions as follows.

- Avoid close contact with (less than 1 meter, or 3 feet, away from) pregnant women and children until **June 9, 2006**.
- Do not hold or embrace children for more than **10 minutes** a day until **June 13, 2006**.
- From **June 13, 2006** until **June 20, 2006** you should avoid very close contact with children for longer than an hour but may spend 3 to 4 hours per day at 3 feet from children.
- After **June 21, 2006** you may resume very close contact with children for 3 hours a day.
- Do not sleep in the same bed with your sleeping partner until **June 9, 2006**.
- Beginning **June 7, 2006**, there are no restrictions on public transportation for periods up to 3 hours.

MedStar Health
3800 Reservoir Road, NW, LL 17 PHC, Washington, DC 20007-2113
phone: 202 444 4049 • *fax:* 202 444 0069 • *email:* jeg43@gunet.georgetown.edu

Appendix 2, Annex b

In addition, the following precautions should be observed until **June 9, 2006**:

1. To the extent that is reasonable, try to remain far away from individuals around you
2. You should otherwise observe good personal hygiene and may shower, bathe, shave, etc as you normally would, rinsing the shower stall, tub, or sink thoroughly after use.
3. Wipe up any spills of urine, saliva, and/or mucus with disposable paper toweling or tissues, dispose of the paper in the toilet, and flush the toilet two times.
4. While at the hotel, rinse plates, bowls, spoons, knives, forks, and cups. If disposable utensils can not be rinsed or flushed, refer to item 8.
5. Rinse the sink thoroughly after use (tooth brushing) and wipe the fixtures with disposable paper toweling, disposing of the paper toweling in the toilet, and flushing the toilet two times.
6. Store and launder your soiled/used clothing separately from those of the rest of your household, running the rinse cycle two times at the completion of machine laundering.
7. Do not share food or drinks with anyone.
8. Any disposable items that come into contact with body fluids and can not be flushed down the toilet should be placed in a plastic bag and held. The bag should be held for 3 weeks before going into the home trash or brought to the Georgetown University Hospital Radiation Safety Office for disposal. Phone: 202-444-4657. Office: Gorman 2047.

After **June 9, 2006,** contamination should not be an issue.

John E. Glenn

John E. Glenn, Ph.D.

Date: June 7, 2006

Fast HL	0.6
Slow HL	7.3
fast frac	0.95
slow Frac	0.05
Init Reading	27

Occupancy Factors	Dose at 1 meter
0.5	364
0.25	182
0.125	91

t	X(t)	Infinity Dose(.25)	Infinity Dose (0.125)	Infinity Dose (0.125) 1 foot	Infinity Dose (1 hour) 1 foot
0.00	27	1704.9	852.5	7672.1	2557
0.75	12.044	760.5	380.2	3422.2	1141
1.00	9.309	587.8	293.9	2645.2	882
2.00	3.6626	231.3	115.6	1040.7	347
3.00	1.8176	114.8	57.4	516.5	172
4.00	1.1762	74.3	37.1	334.2	111
5.00	0.9195	58.1	29.0	261.3	87
6.00	0.7889	49.8	24.9	224.2	75
7.00	0.7025	44.4	22.2	199.6	67
8.00	0.6342	40.0	20.0	180.2	60
9.00	0.5753	36.3	18.2	163.5	54
10.00	0.5227	33.0	16.5	148.5	50
11.00	0.4752	30.0	15.0	135.0	45
12.00	0.4321	27.3	13.6	122.8	41
13.00	0.393	24.8	12.4	111.7	37
14.00	0.3574	22.6	11.3	101.6	34

EXHIBIT 1
NUCLEAR MEDICINE DEPARTMENT
INFORMATION CONCERNING HOSPITALIZATION FOR PATIENTS ADMINISTERED RADIOACTIVE IODINE

The Nuclear Regulatory Commission has concluded that the radioactive iodine that you receive for therapeutic purposes will cause only small radiation exposures to others if you are released from the hospital in accordance with Nuclear Regulatory Commission guidelines. Special precautions are required for women patients nursing infants or small children. Exposures occur mainly if other people remain close to you (less than 3 feet) for long periods of time (at least one hour) during the first few days after you leave the hospital. The Nuclear Medicine Department will make measurements with a radiation detector to determine that you meet Nuclear Regulatory Commission guidelines prior to leaving the hospital.

Normally, these measurements indicate that a patient may be released less than 24 hours after receiving the dose of radioactive iodine. Thus you may only need to be in the hospital for one night. Sometimes, the measurements indicate that a patient does not meet the Nuclear Regulatory Commission's guidelines assuming normal contact and activities with other people. In those circumstances, you may need to remain for a second night. By answering the following questions and agreeing to follow the guidelines, you may be able to be released earlier because of your limited contact with other people.

1. Are you a woman nursing a small child or infant?

   Yes ____ No X

   NOTE: Nursing an infant or small child after receiving radioactive iodine will transfer the radioactive iodine from the mother to the child through the milk. Radioactive iodine ingested by the child will expose the thyroid of the child to potentially harmful levels of radiation. Lifelong medication may be required to prevent serious effects both mentally and physically if the child's thyroid receives a high dose of radiation. **If you are nursing a child, inform Nuclear Medicine personnel and we must reschedule your administration at a later date after you have permanently ceased nursing this child.**

2. Can you take care of yourself except for brief visits and not be in the same room with another person for more than three hours total during each of the first two days?

   Yes ✓ No ____

   If no, briefly explain circumstances: _____

   _____

   _____

3. Will you be able to maintain distance from other people, including:
   - Sleeping alone for at least one night (recommend 3 nights)?
   - Avoiding kissing and sexual intercourse for at least 3 days?
   - Staying at least 3 feet away from people if you will be involved with them for more than an hour a day in the first 3 days?

   Yes ✓ No ____

   If no, briefly explain circumstances: _____

4. Will you avoid travel by airplane or mass transit for the first day?

   Yes ✓ No ____

   If no, briefly explain circumstances: _____

5. Will you avoid prolonged travel in an automobile with others for the at least first two days?

   Yes ✓ No ____

   If no, briefly explain circumstances: _____

6. Will you have sole use of a bathroom for at least two days?

   Yes ✓ No ____

   If no, briefly explain circumstances: _____

I have read these guidelines, understand the instructions and agree to avoid contacts in accordance with my answers to items 2 through 6. [Note: If you can not manage at home and avoid close contact, it may be necessary for you to remain in the hospital up to an additional 24 hours.]

Signature: [redacted] Date: 6/6/06

(Patient or other person in accordance with hospital informed consent policy.)

PERSONAL INFORMATION WAS REMOVED BY NRC. NO COPY OF THIS INFORMATION WAS RETAINED BY THE NRC.