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AÑOS DE EXCELENCIA

ASHFORD PRESBYTERIAN COMMUNITY HOSPITAL

December 22, 2014

Licensing Assistance Team
Division of Nuclear Materials Safety
U.S. Nuclear Regulatory Commission, Region I
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406-2713

To whom it may concern:

We are submitting this document for your consideration and evaluation to clarify Item 9 (C) of the Ashford Presbyterian Community Hospital, Nuclear Medicine and Cardiovascular Laboratory material license. The license number of this facility is: 52- 11810-02 and docket number is 03009858.

We wish to clarify that Iodine -131 will be used for any diagnostic study or therapy procedure permitted by 10 CFR 35.300 at Ashford Presbyterian Community Hospital facility. It is our intentions to use Iodine-131 & released the patient under the provisions of 10 CFR 35.75, as well as hospitalized patients when necessary.

A Radioactive Protection Program for this purpose has been developed and implemented at this facility that includes the following:

- Training Program for ALARA concept is in place for all new recruitment personnel at Ashford Presbyterian Community Hospital.
- All staffs involved in the care of hospitalized patients with Iodine I-131 treatment are well trained, including in-patient nurses.
- All involved hospital personnel will be monitored and provided with dosimetry that meets the requirements listed under 'Criteria, in NUREG 1556, Vol. 9, Rev 2 "Consolidated Guidance About Materials Licenses: Program –Specific Guidance About Medical Use Licenses"
- We have developed written procedures for area surveys for radioactive contamination at the rooms that will be dedicated for Iodine -131 treatments.

The rooms that will be used for iodine -131 treatments are private rooms and are located on the third floor at the end of the hallway. These are rooms 321, 320, 319, and 318.

- The room number will vary depending on the availability on the admission date. The patient's admission to the hospital will be coordinated in advance with all hospital staffs involved.
- The room will be prepared and absolvent paper will be placed on specific areas of the room to prevent radioactive contamination while the patient is hospitalized.
- All the rooms that will be used for this purpose has the same characteristics and will be identified as restricted areas while it is used for iodine -131 treatment:

PO Box 9020032. San Juan Puerto Rico 00902-0032. Tel: (787)721-2160. www.presbypr.org

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- They are all at the third floor and at the end of the hallway.
- They all have their own bathrooms with shower, toilet and sink.
- The adjacent area of these rooms are:

1. At both sides of the rooms there are other rooms dedicated for patient care
2. In front of the room is the hallway and the nursing work station
3. The back of the room is the outside edge of the building
4. Below the therapy rooms there are more rooms (second floor dedicated to patient care.)
5. Above the therapy rooms is the roof where the air conditioner system & air suction equipment are located.

Enclose the following documents for your review:

- NUCLEAR MEDICINE PHYSICIAN (AU) WRITTEN DIRECTIVE
- NUCLEAR MEDICINE TECHNOLOGIST QUALITY ASSURANCE FORM
- PATIENT AUTHORIZATION AND CONSENT FORM FOR I-131 ADMINISTRATION
- AUTORIZACIÓN Y CONSENTIMIENTO DEL PACIENTE PARA ADMINISTRACIÓN DE I-131
- RECORD OF JUSTIFICATION OF PATIENT RELEASE BASED ON PATIENT SPECIFIC DOSE CALCULATION TREATMENT OF THYROID CANCER USING I 131
- PATIENT RELEASE FORM TREATMENT OF THYROID CANCER USING I 131
- PHYSICIAN'S INSTRUCTIONS TO PATIENT FOR I-131 THERAPY FOR THYROID CANCER
- INSTRUCCIONES DEL MÉDICO PARA EL PACIENTE TRATAMIENTO DE IODO I-131 PARA CANCER DE TIROIDE
- INSTRUCTIONS FOR PATIENTS WITH IODINE 131 HOSPITALIZE THYROID CANCER TREATMENT
- INSTRUCCIONES PARA PACIENTES DURANTE TERAPIA DE I-131 HOSPITALIZADO (CANCER DE TIROIDES)
- NURSING INSTRUCTIONS FOR PATIENTS TREATED WITH IODINE 131
- RECORD OF JUSTIFICATION OF PATIENT RELEASE BASED ON RETAINED ACTIVITY
- RECORD OF JUSTIFICATION OF PATIENT RELEASE BASED ON MEASURED DOSE RATE
- PATIENTS RADIATION EXPOSURE RATES
- NURSE CONTROL FOR PATIENTE CARE DURING I-131 TREATMENT
- THERAPY I 131 ROOM RADIOACTIVE CONTAMINATION SURVEY

If there is any question regarding this information, please let us know. You can contact us at (787) 721-2160, extension 6507 or Mr. Jossian J. Pagán Lisboa at (787) 612-6825.

Cordially,

Pedro J. González, MHSA, FACHE
Executive Director
Ashford Presbyterian Community Hospital

NUCLEAR MEDICINE PHYSICIAN (AU)
WRITTEN DIRECTIVE
Ashford Presbyterian Community Hospital
Nuclear Medicine and Cardiovascular Laboratory
Therapeutic or Radioiodine (I-131) Doses in Excess of 30 uCi and other Radioisotopes
(Metastron, etc)

PATIENT'S NAME:	**BIRTH DATE:**
PATIENT'S ID NUMBER: MN - __ __ - __ __ __ __ (last 6 digits from the Social Security Number)	
TYPE OF TREATMENT: _____ Cancer Ablation _____ Hyperthyroidism _____ Whole Body Scan	

NUCLEAR MEDICINE PHYSICIAN ONLY		
Physicians Questions:	**OUT PATIENT BASIS** ( ) Male ( ) Female	**IN PATIENT BASIS** ( ) Male ( ) Female
1. Is there any possibility the patient might be pregnant?	☐Yes ☐No ☐ N/A	
2. Is a pregnancy test done or required? Results: ☐NEGATIVE ☐POSITIVE	☐Yes ☐No ☐ N/A	
3. Date last menstrual period: _____	☐Yes ☐No ☐ N/A	
4. Has the patient passed through the menopause process?	☐Yes ☐No ☐ N/A	
5. Is the patient sterilized?	☐Yes ☐No ☐ N/A	
6. Did the patient go through a hysterectomy?	☐Yes ☐No ☐ N/A	
7. Were the patient's ovaries removed?	☐Yes ☐No ☐ N/A	
8. Is the patient breastfeeding?	☐Yes ☐No ☐ N/A	
9. According to your professional point of view, the patient housing conditions are adequate to continue treatment after the administration of I -131.	☐Yes ☐No ☐ N/A	
10. Are there any pregnant women in the house?	☐Yes ☐No ☐ N/A	
11. Are there any children living in the house?	☐Yes ☐No ☐ N/A	
12. Were the risks and consequences of exposing other individuals, children and pregnant women explained to the patient?	☐Yes ☐No ☐ N/A	
13. Were the instructions discussed and given in written to the patient and signed?	☐Yes ☐No ☐ N/A	
14. The patient understands the instructions and questions were answered.	☐Yes ☐No ☐ N/A	
15. Is the patient in his capacity to receive iodine 131 in outpatient basis for treatment and will follow the instructions according to the gathered information?	☐Yes ☐No ☐ N/A	

WRITTEN DIRECTIVE	***OUTPATIENT BASIS***	***IN PATIENT BASIS***
Date of Treatment: _____	**Dose of Iodine -131 requested (Millicuries)** _____ mCi	
Radiopharmaceutical : Iodine-131: ☐ capsule or ☐ liquid	**Route of administration:** Oral	
Authorized User or Nuclear Physician **Signature: _____**	**Comments: _____**	

NUCLEAR MEDICINE TECHNOLOGIST QUALITY ASSURANCE FORM
Ashford Presbyterian Community Hospital
Nuclear Medicine and Cardiovascular Laboratory
Therapeutic or Radioiodine (I-131) Doses in Excess of 30 uCi and other Radioisotopes
(Metastron, etc)

PATIENT'S NAME:	**BIRTH DATE:**
PATIENT'S ID NUMBER: MN - __ __ - ___ ___ ___ ___ (last 6 digits from the Social Security Number)	
TYPE OF TREATMENT: _____ Cancer Ablation _____ Hyperthyroidism _____ Whole Body Scan	

NUCLEAR MEDICINE TECHNOLOGIST VERIFICATION (CHECK AT LEAST TWO)					
Patient's Name:	☐Yes	☐No	Birth date:	☐Yes	☐No
Medical Insurance Card or ID:	☐Yes	☐No	Address:	☐Yes	☐No
Social Security Number:	☐Yes	☐No	Relative / Friend:	☐Yes	☐No
_____ Out Patient Basis ( ) Male ( ) Female			**CNMT Signature:** _____		
_____ In Patient Basis ( ) Male ( ) Female			**Date of Verification:** _____		

Before the Administration of Iodine - 131			
Pregnancy test was verified:	☐Yes	☐No	☐N/A
Followed Nuclear Medicine Physicians Written Directive's:	☐Yes	☐No	☐N/A
Verified the Radiopharmaceutical to be administered (I-131 capsule):	☐Yes	☐No	☐N/A
Patient Release Form completed:	☐Yes	☐No	☐N/A
Instructions given to patient and signed:	☐Yes	☐No	☐N/A
Patient Consent form obtained and signed	☐Yes	☐No	☐N/A

Dose Iodine -131 is measured (+ or - 20%): _____ mCi

Route of administration: Oral

Date Administered: _____ **Time Administered:** _____ ☐ AM ☐ PM	**Nuclear Medicine Technologist Signature:** _____

After the Administration of Iodine - 131	
Radiopharmaceutical I-131: ☐ capsule or ☐ liquid Route of administration: Oral Observed patiente drinking the capsule: ☐Yes ☐No Dose Administered completely: ☐Yes ☐No The Iodine -131 container is empty: ☐Yes ☐No	**Instrument Used Geiger Muller:** ☐ Ludlum 14C, S/N:24331, Probe: PR159568 ☐ Biodex 14C, S/N:102711, Probe: PR100871
Patient Dose Rate Measurement: (For Ablation Tx Only) • 1 meter from the patient: _____ mR/hr • Close to patient's body: _____ mR/hr Date: _____	**Patient Dose Rate Measurement 7 days later:** • 1 meter from the patient: _____ mR/hr • Close to patient's body: _____ mR/hr Date: _____
Afix Label	**Nuclear Medicine Technologist** **Signature:** _____ **Date:** _____

PATIENT AUTHORIZATION AND CONSENT FORM FOR I-131 ADMINISTRATION

Ashford Presbyterian Community Hospital

Nuclear Medicine and Cardiovascular Laboratory

Patient Name: _____ Date: _____

Female Patients:

As part of the Radiation Protection Program in this laboratory, all female patients who will undergo Iodine -131 treatment are required to answer the following questions:

1. Menstrual period cycle:
   - Date of the last menstrual period: _____
   - Results of the pregnancy test: _____
2. Is there any possibility you might be pregnant? ☐Yes ☐NO
3. Have you past thru the Post – Menopause process? ☐Yes ☐NO
4. Have you been sterilized? ☐Yes ☐NO _____ (Year)
5. Have you undergone a hysterectomy? ☐Yes ☐NO _____ (Year)
6. Have your ovaries been removed? ☐Yes ☐NO _____ (Year)
7. Are you currently breastfeeding? ☐Yes ☐NO
8. Are there any pregnant women in your house? ☐Yes ☐NO
9. Are there any children living in the house? ☐Yes ☐NO

Male Patient's:

As part of the Radiation Protection Program in this laboratory, all male patients who will undergo Iodine -131 treatment are required to answer the following questions:

1. Are there any pregnant women in your house? ☐Yes ☐NO
2. Are there any children living in your house? ☐Yes ☐NO

Patient Consent:

To whom it may concern:

I authorize the Nuclear Medicine Physician or an Authorized User, to continue with the administration of Iodine -131 treatments as part of my medical condition. All questions that I had regarding the administration of Iodine -131 were answered to my full satisfaction. I also certify that the procedure, the instructions to follow in my house, potential future complications and risks were properly explained to me and that I understood everything. I will assume all responsibility that might occur during the I-131 treatment process and will not expose other people to unnecessary radiation.

_____ _____ _____ _____

Patient Signature Date Nuclear Medicine Technologist Date

AUTORIZACIÓN Y CONSENTIMIENTO DEL PACIENTE PARA LA ADMINISTRACIÓN DE I-131

Ashford Presbyterian Community Hospital

Nuclear Medicine and Cardiovascular Laboratory

Nombre del Paciente: _____ Fecha: _____

Pacientes Féminas:

Como parte del Programa de Protección Radiológica en este laboratorio a todas las pacientes féminas que se someterán a algún tratamiento con I-131 se les requiere contestar las siguientes preguntas:

1. Ciclo del periodo menstrual:
    a. Fecha de su último período menstrual. _____
    b. Resultados de prueba de embarazo. _____
2. ¿Se encuentra usted embarazada? ☐Sí ☐NO
3. ¿Pasó por el proceso de la Post Menopausia? ☐Sí ☐NO _____(Año)
4. ¿Le han realizado el proceso de esterilización? ☐Sí ☐NO _____(Año)
5. ¿Le han realizado Histerectomía? ☐Sí ☐NO _____(Año)
6. ¿Le han removido los ovarios? ☐Sí ☐NO _____ (Año)
7. ¿Se encuentra usted actualmente lactando? ☐Sí ☐NO
8. ¿Hay mujeres embarazadas en su casa? ☐Sí ☐NO
9. ¿Hay niños pequeños en su casa? ☐Sí ☐NO

Pacientes Masculinos:

Como parte del Programa de Protección Radiológica en este laboratorio a todos los pacientes que se someterán a algún tratamiento con I-131 se les requiere contestar las siguientes preguntas:

1. ¿Hay mujeres embarazadas en su casa? ☐Sí ☐NO
2. ¿Hay niños pequeños en su casa? ☐Sí ☐NO

Consentimiento del Paciente:

A quien pueda interesar:

Yo autorizo al Médico en Medicina Nuclear o Usuario Autorizado, que me administre Yodo radioactivo I-131, como parte del tratamiento para mi condición médica. Todas las preguntas que tenía relacionadas a este procedimiento fueron contestadas a mi plena satisfacción. Certifico que el procedimiento, las instrucciones a seguir en mi casa, las posibles complicaciones futuras y los riesgos se me explicaron. Por lo tanto asumo toda la responsabilidad de cualquier cosa que pudiese ocurrir y aseguro que no expondré a otras personas a la radiación de modo innecesario a la cual fuí sometida(o) por mi condición.

_____ _____ _____ _____

Firma del Paciente Fecha Firma Tecnólogo Medicina Nuclear Fecha

RECORD OF JUSTIFICATION OF PATIENT RELEASE
BASED ON PATIENT-SPECIFIC DOSE CALCULATION
TREATMENT OF THYROID CANCER USING I-131
Ashford Presbyterian Community Hospital
Nuclear Medicine and Cardiovascular Laboratory

$D_t = 34.6 * \Gamma * Q_0 / (100cm)^2 \{ E_1 T_p (0.08) (1-e^{-0.693(0.33)/Tp}) + e^{-0.693(0.33)/Tp} E_2 F_1 T_{1eff} + e^{-0.693(0.33)/Tp} E_2 F_2 T_{2eff} \}$

D_t = accumulated exposure at time t in roentgens

Q_0 = initial activity of the point source

34.6 = conversion factor of 4hrs/day times the total integration of decay (1.44)

Γ = specific gamma ray constant for a point source R/mCi-hr at 1 cm

T_p = physical half-life in days

r = distance from the point source to the point of interest in centimeters.

t = exposure time in days

E_1 = 0.75 occupancy factor for the first 8 hrs

E_2 = 0.25 occupancy factor from 8hrs – total decay

F_1 = extra thyroidal uptake fraction (0.95 TC or 0.20 H)

F_2 = thyroidal uptake fraction (0.05TC or 0.80 H)

T_{1eff} = biological half life for extra thyroidal iodide

T_{2eff} = biological half life of iodide following uptake by the thyroid

D_i = maximum likely internal committed effective dose equivalent to the individual exposed to the patient in rems.

Q_0 = initial activity administered to the patient

$1x\ 10^{-5}$ = assumed fractional intake

DCF = dose conversion factor to convert an intake in mCi to an internal committed effective does equivalent.

PATIENT RELEASE FORM
TREATMENT OF THYROID CANCER USING I-131
Ashford Presbyterian Community Hospital
Nuclear Medicine and Cardiovascular Laboratory

Patient name: _____ Patient ID: _____
Referring Physician:_____ Nuc. Med. Technologist: _____
Instructions given by: _____ Patient written directives received by: _____
Radiopharmaceutical administered: **I-131 cap.** Post thyroidectomy for Thyroid Cancer
Activity to be administered (Q_0):_____ (mCi) Expected date of administration: _____
Time of administration: _____Written Directives given by Physician: _____

Calculation of Total Dose Equivalent Equation B-5 of Regulatory Guide 8.39 or NUREG-1556 VOL.9, Rev 2, Appendix U

30 mCi I-131

$$D_t = 34.6 * \Gamma * Q_0 / (100cm)^2 \{ E_1 T_p (0.08) (1-e^{-0.693(0.33)/Tp}) + e^{-0.693(0.33)/Tp} E_2 F_1 T_{1eff} + e^{-0.693(0.33)/Tp} E_2 F_2 T_{2eff} \}$$

r = 2.2
Q_0 = **30 mCi** initial activity of the point source
Tp = 8.04 physical half-life in days I -131
E_1 = 0.75 occupancy factor for the first 8 hrs
E_2 = 0.25 occupancy factor from 8hrs – total decay
F_1 = 0.95 (0.95 TC or 0.20 H) extra thyroidal uptake fraction
F_2 = 0.05 (0.05TC or 0.80 H) thyroidal uptake fraction
T_{1eff} = 0.32 biological half life for extra thyroidal iodide
T_{2eff} = 7.3 biological half life of iodide following uptake by the thyroid

Dose = 0.068 rems

Calculation of Internal Dose Equation B-6 of Regulatory Guide 8.39 or NUREG-1556 VOL.9, Rev 2, Appendix U

$$D_I = Q_0 (1x\ 10^{-5})(DCF)$$

Q_0 = **30 mCi** initial activity administered to the patient
$1x\ 10^{-5}$ = assumed fractional intake
53 = DCF dose conversion factor to convert an intake in mCi to an internal committed effective dose equivalent.

Dose = 0.016 rems

Total dose = external (equation B-5) + Internal (equation B-6)
Total dose = 0.068 rem + 0.016 rems
Total dose = 0.084 rems

10CFR 35.75(a): A licensee may authorize the release from its control of any individual who has been administered unsealed byproduct material if the TEDE to any other individual from exposure to the release individual is not likely to exceed 5 Msv (0.5 rem) in any one year. The therapy may be administered on an outpatient basis if the patient is able to follow the written directives. Under no circumstances can a patient be released above 178.5 mCi of I-131.

PHYSICIAN'S INSTRUCTIONS TO PATIENT FOR
I-131 THERAPY FOR THYROID CANCER
Ashford Presbyterian Community Hospital
Nuclear Medicine and Cardiovascular Laboratory

Your physician has referred you for a treatment of radioactive iodine for ablation of residual functioning thyroid tissue. Other methods of therapy may be available, but this particular treatment is felt to be best in your situation, at this time.

We are attempting to destroy all functioning thyroid tissue. Unfortunately, results are not always successful. There is an approximately 10-30% chance that results may vary with the cumulative dose of radioactive iodine. Second, there is an approximately 1% chance of developing significant bone marrow depression. Although the bone marrow typically recovers, blood transfusions may be necessary. The chance of developing a secondary malignancy from this therapy is rare and if it happens it is usually after many I-131 therapies.

There are several relatively minor, self-limited, side effects which may occur.

- Nausea and vomiting.
- Decreased taste sensation
-10% chance that the treatment will affect the salivary glands resulting in soreness and dryness of the mouth for several days.

If any of these complications occur, you may contact your physician for symptomatic treatment.

You should refrain from eating for one (1) hour following ingestion of the radioactive iodine (I-131).

Female patients who may be pregnant or who are breastfeeding should <u>not</u> undergo this treatment. Pregnancy should be postponed for at least <u>12 months</u> following treatment.

_____ _____
Patient or legal guardian Nuclear Physician

_____ _____
Witness Date

INSTRUCCIONES DEL MÉDICO PARA EL PACIENTE
TRATAMIENTO DE IODO I-131 PARA CANCER DE TIROIDE
Ashford Presbyterian Community Hospital
Nuclear Medicine and Cardiovascular Laboratory

Su médico lo ha referido para un tratamiento de yodo radioactivo para la ablación de residuo de tejido tiroideo funcional. Aunque otros métodos de tratamiento están disponibles, este tratamiento en particular resulta ser el más adecuado para su condición en estos momentos.

Este tratamiento intenta destruir todo tejido tiroideo funcional. Desafortunadamente, los resultados no siempre son exitosos. Hay aproximadamente un 10 -30% de probabilidad que los resultados varíen con la dosis acumulada de yodo radioactivo. Segundo, hay aproximadamente 1% de posibilidad de desarrollar una deprimir significativamente la médula ósea. Si esto ocurriese, transfusiones de sangre serían necesarias. Sin embargo, usualmente la médula ósea se recupera. La posibilidad de desarrollar una segunda malignidad relacionada a este tratamiento es rara y usualmente está relacionada a múltiples tratamientos con Yodo-131.

Hay efectos secundarios mínimos que pueden ocurrir. Existe la posibilidad de nausea y vómitos. El tratamiento disminuirá la sensación del gusto y hay un 10% de posibilidad de que las glándulas salivares se afecten resultando en irritación y resequedad en la garganta y boca por varios días. Si algunas de estas complicaciones ocurriesen, puede contactar a su médico para tratamiento sintomático.

Debes evitar ingerir alimentos por una (1) hora luego de adminístrale la dosis de yodo radioactivo (I -131).

A toda paciente fémina se le entregará una requisición para una prueba de embarazo cuyo resultado es requisito antes de administrar el tratamiento de yodo radioactivo (I -131). Pacientes embarazadas o que se encuentren lactando no deben ser sometidas a este tipo de tratamiento. Si planea quedar embarazada, debe posponerlo por lo menos por 12 meses luego del tratamiento de yodo radioactivo (I -131).

_____ _____

Firma del paciente o custodio legal Firma del Médico en Medicina Nuclear

_____ _____

Testigo Fecha

INSTRUCTIONS FOR PATIENTS WITH IODINE-131
HOSPITALIZE THYROID CANCER TREATMENT
Ashford Presbyterian Community Hospital
Nuclear Medicine and Cardiovascular Laboratory

Patient: _____ Dose administered _____mCi of I-131 Date: _____
Record number: _____ Patient's Birth Date: _____

While the radioiodine dose that you have received is beneficial to you, it is desirable that other persons with whom you come in contact are not unnecessarily exposed to radiation. If you are currently nursing an infant, additional instructions will be given to you concerning the need to interrupt or discontinue breastfeeding. Below are some minimum actions necessary to which you must agree to help keep exposure to others as low as possible. The instructions should be followed for the recommended number of days following the treatment.

1. You should stop taking medications like: Synthroid or Levoxyl at least 2 weeks before the I-131 treatment.
2. Maintain a distance of at least five (5) feet from others for the first five to seven (5 to 7) days after treatment.
3. You will be restricted inside your room for a few days until radioactive measurements are acceptable and you can be released. Activity at or below 33 mCi or dose rate at or below 7 mrem/hr at 1 meter.
4. Visitors will not be allowed in the room during your stay in the hospital.
5. You will be receiving patient care by designated nurse during your stay in the hospital. It will be required your cooperation in this matter and if you need any help please feel free to ask.
6. Flush the toilet three (3) consecutive times after use.
7. Please sit on the toilet while urinating (Male and Female patients).
8. After taking a bath and washing your mouth please keep water running for three more minutes.
9. Wash your hands after using the bathroom.
10. Your food will be served with disposable utensils during your stay in the hospital.
11. Discard all disposable utensils used during your stay in one of the boxes labeled as Radioactive Material (Waste).
12. Discard bedclothes in box labeled as Bedclothes. This will be surveyed for radioactive contamination and will be handled by personnel of the Nuclear Medicine Department.
13. The cloth that you use during your stay will be kept in a plastic bag and monitored for radioactive contamination. If radioactive contamination is detected they will be retained by personnel of the Nuclear Medicine Department for decay and will be returned to you after this process.
14. Eat sour candies during the first 48 hour after treatment.
15. Drink plenty of fluids for the next five (5) days.
16. If you are female, at present you should not be pregnant and should avoid pregnancy for the next six (6) months & until cleared by the Nuclear Medicine physician.
17. Clean the phone with Kleenex after each use.
18. Do not kiss or have sexual relationship during the next seven (7) days.
19. If you feel any throat signs or if your present symptoms worsen, you should communicate it to the nurse; she will contact your doctor.
20. Follow the instructions that your doctor has given you and come to the appointment with the suggested studies.
21. Return to the nuclear medicine laboratory after seven (7) days of Iodine treatment for the whole body scan _____ (date for imaging).

Patient Agreement

I agree to abide by the above recommendations as part of my treatment for Thyroid Neoplasia in an outpatient basis. I have had the opportunity to ask questions regarding the limitations on my activities following release and understand each of the recommendations described above.

_____ _____
Patient signature / Date Nuclear Medicine Technologist / Date

INSTRUCCIONES PARA PACIENTES DURANTE
TERAPIA DE I-131 HOSPITALIZADO (CANCER DE TIROIDES)
Ashford Presbyterian Community Hospital
Nuclear Medicine and Cardiovascular Laboratory

Nombre: _____ Dosis: _____ mCi de I-131 Fecha: _____
Número de expediente: _____ Número de Seguro Social: _____

Usted recibirá una dosis de **Yodo Radioactivo** para tratar su condición el día _____ Para que el tratamiento sea más efectivo, debe estar en ayuna por dos horas antes de tomar la dosis. Luego de que reciba la dosis de yodo todo su cuerpo estará RADIOACTIVO. Por tal razón debe seguir las siguientes instrucciones:

1. Dejar de tomar Synthroid por lo menos 2 semanas antes del tratamiento.
2. Se mantendrá en su habitación por varios días hasta que los niveles de radioactividad estén bajo los niveles establecidos para ser dado de alta. Uno de los criterios será que la actividad sea ≤ 33 mCi o que la razón de exposición sea ≤ 7 mrem/hr a 1 metro.
3. No recibirá visita de familiares durante su estadía en el hospital. .
4. Será atendido por una enfermera durante su estadía en el hospital. Por lo que se le requerirá su cooperación y solicitar ayuda cuando usted lo requiera. Siempre estará atendido por personal profesional.
5. Descargue el inodoro tres veces seguidas después que lo use. Lavarse las manos bien, después de cada uso del baño.
6. Favor de sentarse en el inodoro mientras esté orinando (paciente masculino y femenino)
7. Luego de bañarse y de lavarse la boca, favor de mantener el grifo abierto por tres minutos.
8. Su alimento será servido en utensilios desechables durante su estadía en el hospital.
9. Los desperdicios generados serán colocados dentro de la caja identificada con el letrero de Material Radioactivo, (Desperdicios).
10. Colocar la ropa de cama en la caja designada para este propósito. Las cajas serán monitoreadas para contaminación radioactiva y serán manejadas por el personal de Departamento de Medicina Nuclear.
11. La ropa que usted utilice durante su estadía en el hospital deberá ser colocada en una bolsa plástica. La misma será monitoreada para contaminación radioactiva. Si se detecta material radioactivo se mantendrá en el Departamento de Medicina Nuclear. Su ropa se le devolverá tan pronto se garantice que está libre de contaminación radioactiva.
12. Limpie el teléfono con "Kleenex" después de cada uso.
13. Coma dulces agrios durante las primeras 48 horas después del tratamiento.
14. Tome mucho líquido durante los próximos cinco (5) días.
15. Mantener una distancia mínima de cinco (5) pies de otras personas por los primeros cinco a siete (5 a 7) días después del tratamiento.
16. Si es mujer, al presente no debe estar embarazada y deberá evitar embarazo por los próximos seis (6) meses. No besar o tener relaciones sexuales durante los próximos siete (7) días.
17. De presentar alguna molestia en la garganta y la misma empeorar deberá comunicarlo a la enfermera. Ella se comunicará con el Medico en Medicina Nuclear para informarle de la situación.
18. Siga las instrucciones que su médico le ha dado y asista a su cita con los estudios requeridos.
19. Regresará al laboratorio en siete (7) días luego del tratamiento _____ (Fecha de toma de imágenes)

Consentimiento del Paciente

Estoy de acuerdo en seguir las recomendaciones recibidas como parte de mi tratamiento ambulatorio de I-131. He tenido la oportunidad de hacer preguntas concernientes a las limitaciones de mis actividades luego de haber sido dado de alta y entiendo cada una de las recomendaciones descritas anteriormente.

_____ _____

Firma del Paciente/Fecha Firma del Tecnólogo en Medicina Nuclear/Fecha

NURSING INSTRUCTIONS FOR PATIENTS TREATED WITH IODINE-131

(Post on Door of Patient's Room)

Ashford Presbyterian Community Hospital

Nuclear Medicine and Cardiovascular Laboratory

Patient name:_____ ID:_____Room:_____
Nuclear medicine physician:_____Phone:_____
Radiation Safety Officer:_____ Phone:_____
Nuclear Medicine Technologist:_____ Phone:_____
Dose:_____ mCi of I-131. Time administered:____am____ pm_ Date _____

Nursing Instructions

General:

- All critical care support to a patient is to be administered when necessary including transfer to the intensive care unit (in an emergency). These situations should be immediately notified to the Radiation Safety Officer (RSO) and Nuclear Medicine Department to supervise the process and to evaluate the staff involved in the emergency. This will be performed with the purpose to identify possible radioactive contamination from patient's management. **Extension numbers 1005 or 1017**
- Any intervention with patient care should be notified to the Nuclear Medicine Department, Authorized User (AU) and the RSO (laboratories respiratory therapy, blood test etc).
- Only the RSO, AU or nuclear medicine technologist with the corresponding authorization may release room from radioactive contamination.
- Non authorize personnel is permitted in the room (housekeeping, maintenance, technical personnel ect.).
- ALARA concepts must be in mind when interacting with patient care time, distance and when necessary shielding.
- Stay behind line on floor at all times when interviewing the patient.

Nursing restrictions:

- No nurses who are pregnant may render care.
- _____ minutes each day per nurse in room.
- Nurses must wear radiation monitor when caring for patient.
- Wear disposable gloves, shoe covers and lab coat. Wash hands after caring for patient.
- Discard linen, bedclothes, plates, utensils, dressings, etc. in boxes in the room. These boxes will not be removed from room the Nuclear Medicine staff will handle these waste.
- Discard urine and feces in toilet. Flush 3 times.
- Complete the information on Control of Patient Care for I-131 Treatment Form available on the patient's chart.

Patient restrictions:	**Visitor restrictions:**
• Patient is restricted to room.	• No visitors allowed in the room.
• Will follow instructions given	• No visitors under 18 or who may be pregnant.
	• Visitors must stay behind line on floor at all times

Nurse Information and Orientation Consent:

Print Name:	***Signature:***	***Print Name:***	***Signature:***

RECORD OF JUSTIFICATION OF PATIENT RELEASE BASED ON RETAINED ACTIVITY

Institution: Ashford Presbyterian Community Hospital
Nuclear Medicine and Cardiovascular Laboratory

Patient name: _____ Patient ID: _____

Radiopharmaceutical administered: **I-131 capsule**. Activity administered (Q_0):_____ mCi

Date of administration _____ Time of administration _____

Date of patient release _____ Time of patient release _____

Calculation of Retained Activity

Decay interval, (T), (between times of administration and release) _____ hr

Half-life, (T_p), of radionuclide administered _____ hr

Calculated retained activity = Q_0 * exp(-0.693 * T/T_p) mCi

= _____ * exp (-0.693 * _____/_____)

= _____* exp (-0.693 * _____)

= _____ mCi

If calculated retained activity is less than maximum permitted (33 mCi), then patient may be released.

_____ _____
Nuclear Medicine Technologist Signature Date

_____ _____
Radiation Safety Officer Signature Date

RECORD OF JUSTIFICATION OF PATIENT RELEASE BASED ON MEASURED DOSE RATE

Institution: Ashford Presbyterian Community Hospital
Nuclear Medicine and Cardiovascular Laboratory

Patient name: _____ Patient ID: _____

Radiopharmaceutical administered: **I-131 capsule**. Activity administered: _____ mCi

Date of administration: _____ Time of administration: _____

Date of patient release: _____ Time of patient release: _____

Measurement of Dose Rate

Measured dose rate at 1 meter from surface of patient: _____ mrem/hr

If measured dose rate is less than maximum permitted (7mrem/hr), then patient may be released.

Survey meter used:

Manufacture _____

Model number _____

Serial number _____

Date of measurement: _____ Time of measurement: _____

_____ _____
Nuclear Medicine Technologist Signature Date

_____ _____
Radiation Safety Officer Signature Date

PATIENTS RADIATION EXPOSURE RATES

Ashford Presbyterian Community Hospital

Nuclear Medicine and Cardiovascular Laboratory

Patient name: _____ ID:_____ Room:_____

Nuclear medicine physician: _____ Phone: _____

Radiation Safety Officer: _____ Phone: _____

Nuclear Medicine Technologist: _____ Phone: _____

Dose Administered: _____ mCi of I-131 as sodium iodide capsule.

Administered time: _____ Date administered: _____.

Measure patient standing at 1 meter from beside:

Date MM/DD/YY	**Time**	**1 meter (mR/hr)**	Retained I-131 (mCi)	Technologist
Day 1				
Day 2				
Day 3				
Day 4				
Day 5				
Day 6				

Survey meter used:

Manufacture _____

Model number _____

Serial number _____

Date of measurement: _____ Time of measurement: _____

_____ _____

Nuclear Medicine Technologist Signature Date

_____ _____

Radiation Safety Officer Signature Date

NURSE CONTROL FOR PATIENTE CARE DURING I-131 TREATMENT

Ashford Presbyterian Community Hospital

Nuclear Medicine and Cardiovascular Laboratory

SHIFT 7:00 AM – 3:00 PM DOSIMETER # 1

DATE	NAME	EMPLYEE ID NUMBER	SIGNATURE

SHIFT 3:00 PM – 11:00 PM DOSIMETER # 2

DATE	NAME	EMPLYEE ID NUMBER	SIGNATURE

SHIFT 11:00 PM – 7:00 AM DOSIMETER # 3

DATE	NAME	EMPLYEE ID NUMBER	SIGNATURE

THERAPY I 131 ROOM RADIOACTIVE CONTAMINATION SURVEY
Ashford Presbyterian Community Hospital
Nuclear Medicine and Cardiovascular Laboratory

Patient:_____ Date:_____
ID number: _____ Dose: _____ Room Number: _____
Time Dose Administration: _____am _____pm
Nuclear Medicine Technologist: _____
Nuclear Medicine Physician: _____

Date	Hour	Close to bedside (mR/hr)	At 3 feet from bedside (mR/hr	From visitors line (mR/hr)	From out side door (mR/hr)	Initials

Date	Hour	Sink (mR/hr)	Shower (mR/hr)	Toilet (mR/hr)	Bath room floor (mR/hr)	Initials

Date	Hour	Bed (mR/hr)	Telephone (mR/hr)	Refrigerator (mR/hr)	Room Floor (mR/hr)	Initials

HOUR	Bath Room Waste basket (mR/hr)	Solid Waste Box (mR/hr)	Linen Box (mR/hr)

Room# _____
Free of Radioactive Contamination: Yes _____ NO _____

COMENTS:_____

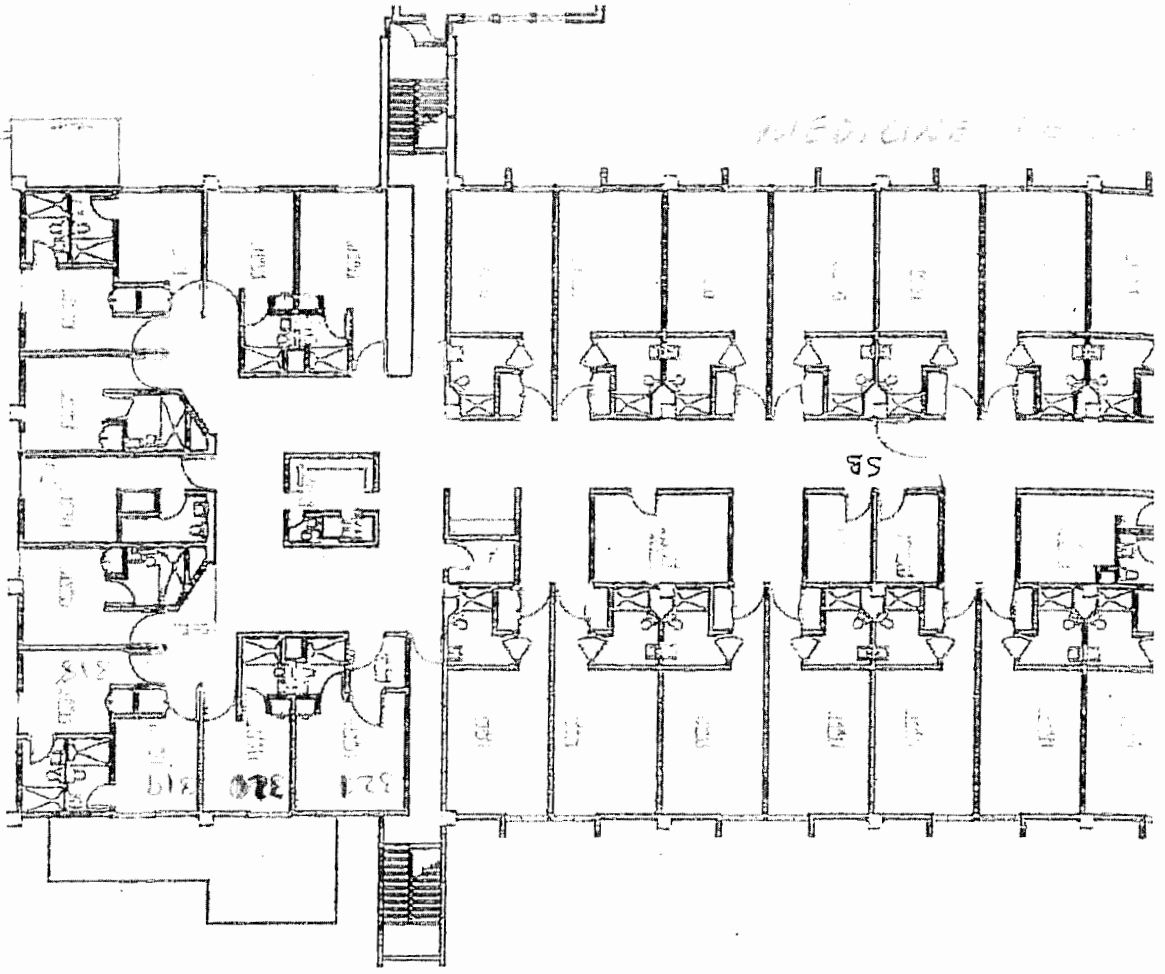
_____

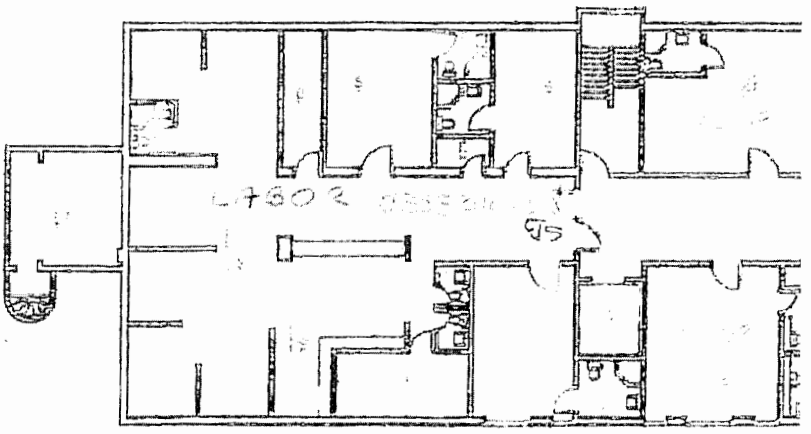
_____

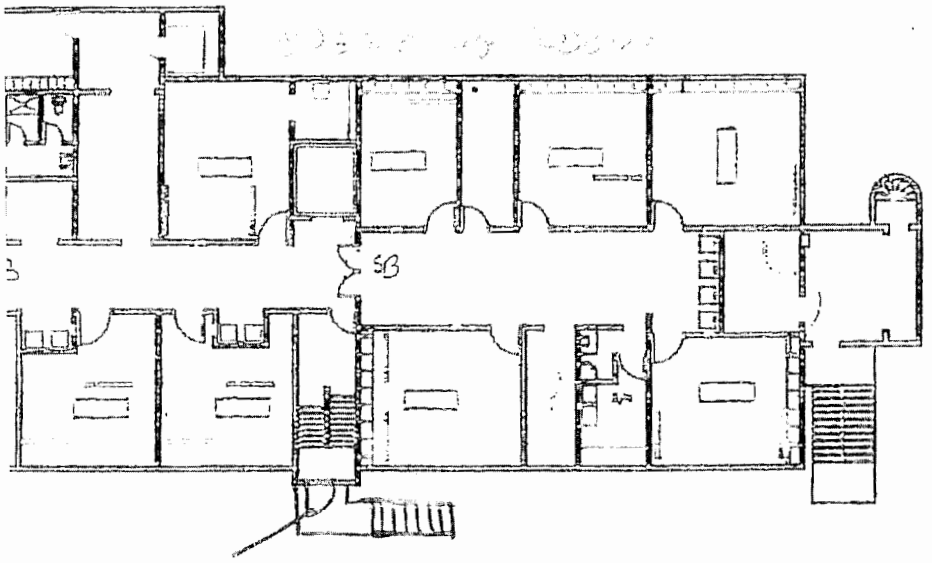
_____

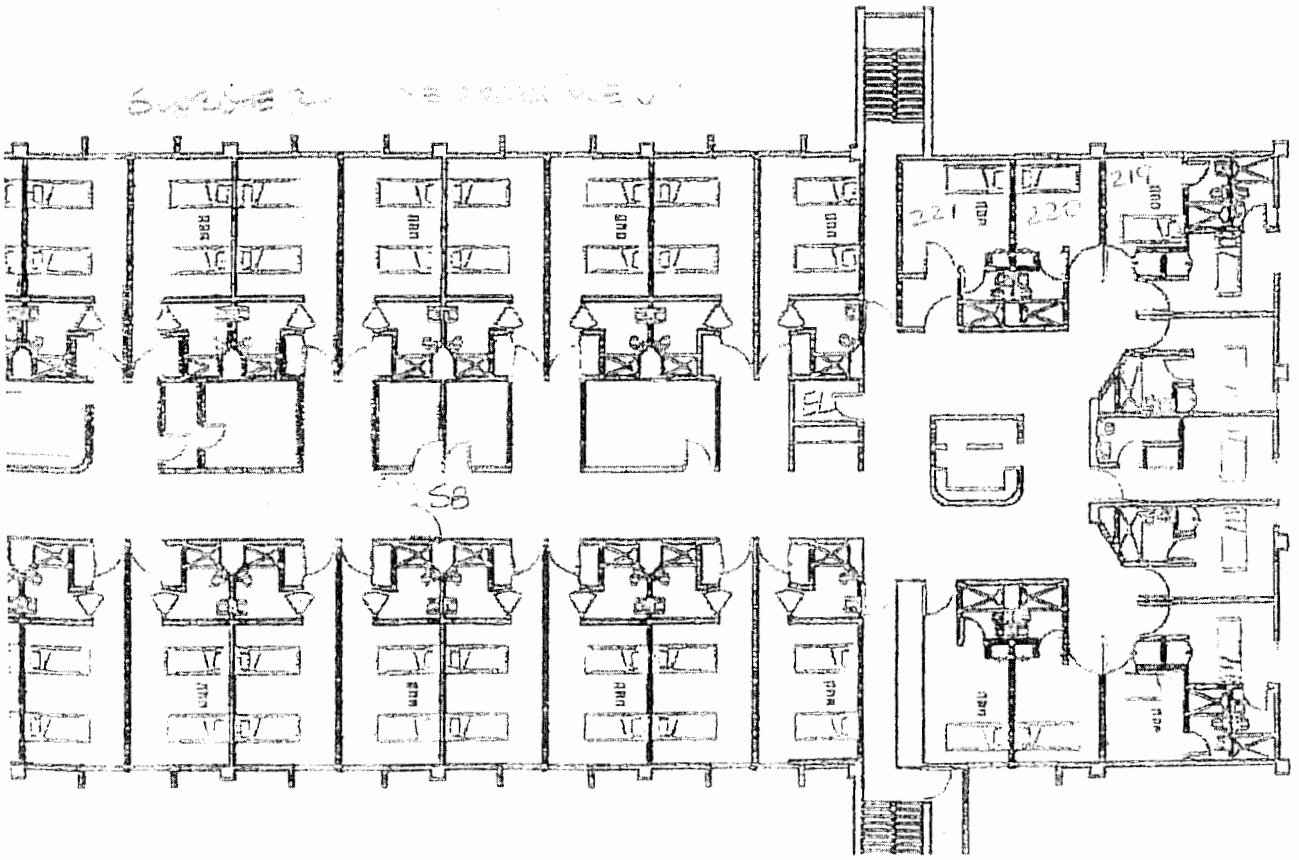
_____ _____
Nuclear Medicine Technologist Signature Date

_____ _____
Radiation Safety Officer Signature Date









This is to acknowledge the receipt of your letter/application dated 12/22/2014, and to inform you that the initial processing which includes an administrative review has been performed.

52-11810-02 (Amendment)

☒ There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

☐ Please provide to this office within 30 days of your receipt of this card

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A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned **Mail Control Number** 585657
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.

NRC FORM 532 (RI)
(6-96)

Sincerely,
Licensing Assistance Team Leader