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**NRLSD BULLETIN 94-01: RELEASE OF PATIENTS WITH RESIDUAL
 RADIOACTIVITY FROM MEDICAL TREATMENT
 AND CONTROL OF AREAS DUE TO PRESENCE OF
 PATIENTS CONTAINING RADIOACTIVITY**

I. ADDRESSEES

All holders of radioactive material license in nuclear medicine.

II. PURPOSE

This bulletin is issued to inform licensees of the regulatory provision and dose limits for the release from medical confinement of patients with residual radioactivity pursuant to Section 37 of the Code of PAEC Regulations (CPR) Part 13, which states that a licensee shall not authorize release from confinement any patient administered with I-131 unless:

- a) The measured maximum dose rate from the patient is less than 25 uSv (2.5 millirems) per hour at a distance of one meter, or
- b) The activity in the patient is less than 0.6 GBq (15 millicuries).

It is expected that licensees affected by this provision will review this information for consideration in their operation and disseminate it to its staff.

III. DESCRIPTION OF CIRCUMSTANCES

The protection of the health and safety of the public against the hazards of ionizing radiation is an important regulatory objective of the Institute. A patient administered with therapeutic dose of radiopharmaceutical is a potential source of radiation exposure. If the patient is released from medical confinement even if the measurement dose rate or activity in the patient is still higher than the prescribed limit, the risks associated with the radiation exposure from the patient may be unacceptable to the general public including

the family members of the patient.

IV. DISCUSSION:

Section 37 of the Code of PAEC Regulation (CPR) Part 13 states that a licensee shall not authorize release from confinement any patient administered with I-131 unless:

- a) The measured maximum dose rate from the patient is less than 25 mSv (2.5 millirems) per hour at a distance of one meter, or
- b) The activity in the patient is less than 0.6 GBq (15 mCi).

The adoption of the regulatory position on the release requirement was based on a reasonable public health and safety judgement of the Institute specific to the protection of the individual members of the public from radioactive materials administered to patients. This is in conformance with the provision of CPR Part 3, Standards for Protection Against Radiation, which requires an annual exposure limit of 500 millirems for members of the public.

Before the radioactive patient is released from hospital confinement, the licensee's RHSO must provide instructions to the relatives and family of the patient about specific procedures to be followed while the patient recuperates at his residence. Such procedures should emphasize the measures that will reduce or minimize any possibility of radioactive contamination or exposure from the patient. Particular precautions should be observed to prevent the patient to come in close contact with young children. Such restriction may be removed once the computed residual activity in the patient has fallen below one quarter of the release limit which is 15 mCi. The physical conditions at the home of the patient should be considered before the patient is released.

The three basic radiation protection principles namely, distance, time and shielding should be adhered to very closely. As required by the regulations, these radiation protection procedures described in the licensee's radiation safety program should be ready and available, at the licensee's facility.

V. REQUIRED LICENSEE ACTION

In order to comply with this requirement with respect to the release of radioactive patients from confinement, licensees shall keep daily monitoring records of dose rates of radioactive patient until such time that the prescribed regulatory limits to authorize the release of the patient has been attained and shall maintain written radiation protection instructions which are available to the family of the patient.

If you have questions about this bulletin, please contact the person listed below.

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