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# Texas Department of Health

## Bureau of Radiation Control

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SP-E-9

**IODINE-131 THERAPY MISADMINISTRATION**

**Date And Place:** Incident#7492. On Wednesday, August 4, 1999, Hermann Hospital in Houston, Texas had an I-131 misadministration that resulted in a middle aged Vietnamese patient with a normally functioning thyroid receiving a therapeutic dose of 27.3 millicuries of iodine-131.

**Nature and Probable Consequence:** Two middle-aged female Vietnamese patients, both with English as a second language, were at the Nuclear Medicine Department for tests or treatment. Mrs. P was scheduled for a bone mineral densitometer (BMD) test and Mrs. T was scheduled for I-131 therapy treatment. Mrs. T had been in the department the previous day for an uptake scan but was unwilling to stay for the treatment. She returned the next day for the treatment. When she was told there would be an hour wait for the treatment, Mrs. T left the waiting area to attend to other business. At the conclusion of Mrs. P's BMD test she returned to the waiting area for a drink of water. The technologist who was intending to dose Mrs. T with the I-131 approached Mrs. P and asked if she was "Mrs. T" and if her birth date was "MM/DD/YY" referring to Mrs. T's medical chart. Not understanding the questions being asked her, Mrs. P replied "yes" to both questions and further indicated she understood the instructions previously given to her about her treatment. Mrs. P was given the 27.3 millicurie I-131 therapy dose and left the Nuclear Medicine area.

Shortly thereafter, Mrs. T returned to the Nuclear Medicine area and was noticed by the Nuclear Medicine Manager. He told the technologist to tell Mrs. T that she could return home. The technologist then discovered he had given the therapy dose to the wrong patient.

A second I-131 therapy dose was ordered and given to Mrs. T without complications.

The Nuclear Medicine Manager then contacted Mrs. P at home and verified that she had indeed been given some liquid to drink through a straw at the hospital. The attending physician was contacted and remedial action was taken.

Mrs. P received a radiation dose to the thyroid of approximately 22,000 rads has an 85 percent chance of functional loss of her thyroid, and replacement thyroid hormone will be required indefinitely.

**Cause or Causes:** The Vietnamese patient who had English as a second language was asked identification questions that could be answered yes or no without the patient understanding the questions. No further identification verification was done.

### Actions Taken to Prevent Recurrence

**Licensee:** The Licensee has changed procedures for all outpatient therapeutic treatments that involve radioactive materials. The form of patient information questions are now "What is your name?" and "What is your date of birth?" and so forth, instead of "Is your name ....?" or "Is your date of birth ....?" Outpatients will also be asked to show a picture form of identification, such as a driver's license, ID card, etc. In the case of pediatric patients, the parent or guardian must confirm the identification of the patient.

**Bureau:** The Licensee was cited violations for administering a therapeutic dose of iodine-131 to a wrong patient who had a normally functioning thyroid and for the authorizing physician user not being physically present when therapeutic procedures were being performed.