

## VASDHS Response to Mrs. Piskura's Request of Information dated December 15, 2009

### 1. Extremity dose assessment for CNMT who wears a wrist badge

- a) Who drew up the dose for the 6/2009 g-tube I-131 therapy case?  
Mr. Russell Cain drew the dose for this therapy.
- b) Who handles I-131 therapies (meaning who draws up the dose and/or administers the dosage to the patient)?  
Mr. Russell Cain handles almost all the radiation therapies at the facility. He takes care of all aspects (i.e., drawing, calibrating and administering doses). The administration of the dose by Mr. Suarez in the September 21, 2009 case was an exception.
- c) If the Chief NMT is involved in these procedures, then the permittee needs to include these exposures in its extremity dose assessment.  
An extremity dose assessment for the June 10 and September 21, 2009 therapies was performed (see attachment 1). The resulting hand dose was 485 mrem. As of December 21, 2009, Mr. Cain's cumulative extremity dose for 2009 (including this estimated dose) is 2,516 mrem.

### 2. RSC approvals/reviews

- a) Provide the RSC approval for Dr. Belezzuoli  
Please see attachment 2
- b) Provide the RSC review/approval for I-131 g-tube administrations.  
No documentation was found in the RSC minutes that show that the RSC reviewed and approved Nuclear Medicine's procedure titled "Therapy for Thyroid Cancer."
- c) Provide the RSC approval for other physicians who administered I-131 thru a g-tube.  
Ryan Pham, MD, is the other physician authorized to prescribe this type of procedure. Please see in attachment 3
- d) Does the RSC approval specify g-tube administrations?  
The procedure "Therapy for Thyroid Cancer" addresses I-131 administrations through feeding tubes, but does not include step-by-step instructions.

### 3. Contamination survey trigger levels of personnel shoes

- a) Why did the staff choose a trigger level of 3-times background?  
This trigger level for portable survey meters is documented in the facility's Radiation Safety Manual, which states "For any work or storage area found to bear radioactive contamination at levels greater than three times background, decontamination and resurveying procedures must be performed immediately until levels are less than this action level." Three times background is a common trigger level used at many institutions in this country. It is approximately equivalent to the reading that would be obtained from an activity equal to the minimum detectable activity for that instrument. For the particular survey meter, equipped with a thin window "pancake" GM probe, the background is about 60 cpm. Three times background is 120 cpm above background. Assuming a counting efficiency of 20 percent for I-131, this is equivalent to an activity of about 600 dpm or 0.3 uCi. This is about one percent of an ALI for I-131.
- b) Did the staff perform any wipes? Did these surveys show any evidence of removable contamination?  
All surveyed shoes showed levels of contamination below the established trigger level. No wipe tests of the shoes were performed. All personnel participating in the g-tube removal procedure wore PPE, including disposable booties. Follow-up surveys of the floor inside and outside of the interventional radiology laboratory were performed (including wipe tests). Only two spots were identified outside the laboratory (at the threshold of the door) with contamination levels slightly above 3-times background. These spots were promptly decontaminated to prevent radioactivity from leaving the laboratory.

### 4. Written report of the medical event

- a) Provide an addendum to the Oct 7th written report on the medical event.  
Please see attachment 4
- b) Addendum should include the new information obtained thru VASDHS's investigation.  
Please see attachment 4
- c) Describe the additional corrective actions taken.  
Please see attachment 4

### 5. Corrective actions

- a) When will the Policies and Procedures be finalized?  
Draft policies and procedures were developed and reviewed by Nuclear Medicine Personnel. We expect them to be reviewed and voted by the RSC during its next quarterly meeting in January 2010.
- b) When will the training be provided to the NM staff?  
Training will tentatively be completed by February 15, 2010.

### 6. When was the last NHPP inspection of VASDHS and the results?

The last routine, unannounced compliance inspection by the NHPP took place on March 17 and 18, 2009. No violations were identified during this inspection. The NHPP's reactive inspection for the medical event was closed on December 28, 2009. We received an advance copy of the report on this date.