

**General Reference:**

SNMMI Procedure Standard for Scintigraphy for Differentiated Thyroid Cancer

**Common Indications:**

Thyroid Cancer

**Pre-scan Clinical History:**

Determine history related to stated clinical history. Locate any pertinent imaging results which describe related findings.

**Patient Preparation:**

None

**Relative Contraindications (if present, consult with nuclear medicine physician prior to scan):**

1. Recent diagnostic imaging utilizing iodinated contrast
2. Medical or supplement therapies containing iodine (amiodarone)
3. 3. Pregnancy

**Radiopharmaceutical and Route of Administration:**

Typically, 4 mCi I131 capsule, PO. Rarely, this protocol may be modified for use with 2 mCi I123; consult with the Nuclear Medicine physician for specific details.

**Procedure:**

The patient may receive the thyrogen injections at his/her doctor's office. If so, consult with the nuclear medicine physician to determine how the following protocol should be adjusted.

1. **Day 1 (typically Monday).** The patient will have any requested lab work (typically quantitative thyroglobulin levels, thyroglobulin antibodies, CBC, creatinine), and thereafter, the first injection of thyrogen by a nurse, 0.9mg IM (buttock).
2. **Day 2:** The patient will receive the second dose of thyrogen, 0.9mg IM.
3. **Day 3.** The patient will have lab work drawn (TSH, and, for ALL females between the ages of 12-55, serum pregnancy unless medical documentation of a tubal ligation or hysterectomy is provided). After these results are obtained and confirmed by the nuclear medicine physician. Two (2) technologists will verify the I-131 capsule dose in the calibrator and complete a written directive. The physician will sign the written directive, authorizing the administration of the I-131 capsule.
4. **Day 5:** Whole body scan and any requested labwork (typically quantitative thyroglobulin levels and thyroglobulin antibodies); labs maybe drawn before or after the scan. The whole body scan will be acquired in anterior and posterior projections, 256x1024 matrix, 6cm/minute, HE collimators. Static images will also be acquired, anterior neck. 256x256 matrix, 600 seconds, and anterior marker view (Co57 marker on the sternal notch), 256x256 matrix, 60 seconds. Show the images to the nuclear medicine physician o determine whether additional imaging is needed.

**Review:**

Prepare images and documents for clinical review as per **Nuclear Imaging Acquisition and Presentation Guidelines**.