

In-111 OctreoScan

Special Instructions For pediatric SPECT-CT examinations, confirm with the radiologist whether the CT is required.

**To be performed at UNMH.
To be performed at SRMC on a case by case basis with Attending Radiologist approval.**

Radiopharmaceutical: In-111 OctreoScan (pentetreotide)

Dose (Adult/Pediatric): Refer to Nuclear Medicine Dose Chart

Route of Administration: Intravenous

Patient Preparation: Please ensure the following:

- Tumor uptake of the radiopharmaceutical may be reduced (although usually not completely eliminated) in patients being treated with short-acting octreotide agents (e.g., octreotide acetate (Sandostatin®)), as well as long-acting agents (e.g., Sandostatin LAR Depot).
- If possible, before injection of the radiopharmaceutical, this treatment should be discontinued for 24 hours for short-acting agents or 4-6 weeks for long-acting agents.
- No other preparation needed.

Equipment Setup: Collimator (all cameras): Medium energy

Computer setup:

Anterior/posterior whole-body sweep (top of head through feet unless otherwise specified by the radiologist):

- Static acquisition
- 256 x 1024 matrix
- **1.0 ZOOM (more for pediatric patients)**
- Scan speed 6 cm/min

Spot views for small pediatric patients less than 5 years, or additional views on adults as needed (check w/ Radiologist to verify prior to imaging):

- Static acquisition
- 128 x 128 matrix
- **1.0 ZOOM (more for pediatric patients)**
- 5 min/image

SPECT or SPECT-CT images:

- 128 x 128 matrix
- **1.0 ZOOM**
- 180 degrees, CW (clockwise)

In-111 OctreoScan (continued)

- 64 steps, 30 sec/step
- Noncircular, continuous

Patient Positioning: Feet first, supine

Procedure:

Imaging time post-injection:

- 4 and 24 hours; additional imaging at 48 hours may rarely be needed (consult with radiologist)
- Acquire planar anterior/posterior whole-body images (pediatric patients) or skull through thighs (adult patients) at 4 and 24 hours (and 48 hours if needed)
- Check with the radiologist for any additional spot views as needed.
- Check with the radiologist for SPECT or SPECT-CT at each imaging time point.
 - Confirm regions to image with radiologist, typically abdomen/pelvis at 4 hours and any other region of interest (e.g., chest) at 24 hours.
 - If chest, abdomen, or pelvis SPECT-CT is performed, arms should usually be up.
 - If neck SPECT-CT is performed, arms should usually be down.

Processing:

- Dual-intensity static display of whole-body images at each time point (typically 4 and 24 hours).
- Static display of any additional spot views.

SPECT-CT:

- Follow automatic processing workflow

If SPECT-CT:

- Process CT in soft tissue (B30) and bone (B60) algorithm; should have attenuation corrected and non attenuation corrected SPECT tomo files.

If SPECT only:

- Should have reconstructed tomographic file and axial/coronal/sagittal lightboxes/savescreens

Items Required For Complete Study:

- Processing and transfer of all images to PACS and/or Leonardo as appropriate
 - Raw data of all planar images to PACS
 - Planar:
 - Lightbox/savescreen of all planar images to PACS, including dual-intensity display of anterior/posterior whole-body images and display of any additional spot views
 - SPECT:
 - Reconstructed Tomo to Leonardo and PACS, Lightboxes/savescreens of axial/coronal/sagittal SPECT to PACS. Rename SPECT to include region imaged (e.g., Reconstructed Tomo PELVIS)

In-111 OctreoScan (continued)

- SPECT-CT:
 - Attenuation Corrected and Non Attenuation Corrected Tomo Reconstructions, CT (B30 and B60) (to Leonardo and PACS). Rename SPECT and CT files to include region imaged (e.g., Reconstructed Tomo- AC - PELVIS)
- Complete the examination in RIS