Radiopharmaceutical:99mTc-Unfiltered Sulfur Colloid
Dose: 1.0 mCi (2.0 mCi for next-day surgery patients)
T1/2: 6 hours
Energy: 140 keV
CPT: 78195

Indications:
Approved indications include, but are not limited to:
1. Breast cancer.
2. Melanoma

Patient Preparation:
• Patient will be coming down from the surgery center upstairs, and will be having either a needle localization in US or MG, or will go straight to US for guided assistance for injections.
• No study-related preparations required by patient. Only those preparations needed for surgery.

Equipment:
1. Philips Skylight (VXUR collimator)
2. Philips Forte (VXUR collimator)
3. Philips Vertex Plus (LEUR collimator)

Procedure BREAST:
1. Patient will be prepped in the ultrasound or mammography suite.
2. Doses will be drawn from the vial of 99mTc-unfiltered sulfur colloid provided by Triad Isotopes using sterile technique.
3. Dose 1 will be 500 µCi, and QS to 0.2 mL (1 mCi for next-day surgery patients).
4. Dose 2 will be 500 µCi and QS to 0.4 mL (1 mCi for next-day surgery patients).
5. Injections will be performed by radiologist.
6. Immediate anterior and lateral scans will be performed for same-day surgery patients that are “no scan”.
7. Delayed imaging at 90 to 120 minutes will be performed in the anterior and lateral projections for patients that are “full scan”.
8. Transmission scans using the flood source will also be performed in the anterior and lateral projections.
9. If sentinel node is localized, have radiologist mark from both projections.

Procedure MELANOMA:
1. Patient will be prepped in NM using sterile technique.
2. Doses will be drawn from the vial of 99mTc-unfiltered sulfur colloid provided by Triad Isotopes using sterile technique.
3. Dose 1 will be 250 µCi, and QS to 0.2 mL (500 µCi for next-day surgery patients).
4. Dose 2 will be 250 µCi, and QS to 0.2 mL (500 µCi for next-day surgery patients).
5. Dose 3 will be 250 µCi, and QS to 0.2 mL (500 µCi for next-day surgery patients).
6. Dose 4 will be 250 µCi, and QS to 0.2 mL (500 µCi for next-day surgery patients).
7. Injections will be performed by radiologist or technologist.

8. Immediate anterior dynamic scan will be performed for patients with melanoma located on thorax, in order to follow lymph path to sentinel node. Transmission images using the flood source are acquired for first 5 minutes of dynamic imaging.
9. Planar scanning to localize sentinel node(s) can be started just after injections.
10. Delayed imaging at 90 to 120 minutes will be performed in the anterior and lateral projections if node does not immediately appear after injections.
11. Transmission scans using the flood source will also be performed in the anterior and lateral projections.
12. If sentinel node is localized, have radiologist mark from both projections.

Acquisition Parameters:
• Matrix: 256 x 256
• Zoom: 1.0
• Total Time: 300 seconds
• Total Kcounts: N/A
• Position: Supine
• Orientation: Feet First

Processing:
1. Left-click on ALL IMAGE DISPLAY.
2. Choose the ANTERIOR, ANTERIOR TRANS, LATERAL, and LATERAL TRANS images, and click on PROCEED.
3. Select the 4-view image display button.
4. Annotate using the proper default in the PENCIL TOOL, and SNAPSHOT→QUIT.
5. Double SNAPSHOT the image ending in "_SS".
6. Send to PACS and print an image to send to the surgery center.