Liver post Y-90 microspheres

Special Instructions	**Scheduling will be coordinated with Interventional Radiology.** **To performed at UNMH only.**

Radiopharmaceutical: Y-90 microsphere (SIR-Spheres)

Dose (Adult/Pediatric): Determined by Authorized User / Interventional Radiologist

Route of Administration: Intra-arterial in Interventional Radiology

Patient Preparation: Per Interventional Radiology requirements. No specific requirements for the nuclear medicine imaging.

Equipment Setup: Collimator (SPECT-CT): Medium energy
Computer setup:
> Energy window:
>> 80 keV, 30%

> Whole-body (anterior/posterior):
>> Static acquisition
>> 256 x 1024 matrix
>> 24 cm/min

> SPECT-CT images:
>> Medium energy collimator
>> 128 x 128 matrix
>> 180 degrees, CW (clockwise)
>> 64 steps, 30 sec/step
>> Noncircular, continuous

Patient Positioning: Feet first, supine

Procedure: Imaging time post-injection:
- As soon as the patient is transferred from Interventional Radiology; imaging may be performed same-day or next-day after administration of the radiopharmaceutical
- Acquire planar anterior/posterior whole-body images followed by SPECT-CT of the abdomen (include entire liver).
- Images are of the Bremsstrahlung radiation (Y-90 is a beta emitter).

Processing: Whole-body anterior/posterior: Dual-intensity display

SPECT-CT:

Liver post Y-90 microspheres (continued)

- Follow automatic processing workflow
- Process CT in soft tissue (B30) and bone (B60) algorithm
- Should have attenuation corrected and non attenuation corrected SPECT tomo files; the non attenuation corrected SPECT is reviewed.
- Generate the SPECT-CT fused axial data set

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 planar images to PACS
  - SPECT-CT: Attenuation Corrected and Non Attenuation Corrected Tomo Reconstructions, CT (B30 and B60) to PACS and Leonardo; Fused axial data set to PACS only.
- Complete the examination in RIS