Splenic Imaging

Special Instructions

*In vitro* labeling is performed, so erythrocyte labeling patient verification must be performed. Refer to Radiology - Nuclear Medicine - Handling of Blood Products procedure.

For pediatric patients, confirm with the radiologist whether the SPECT should be performed without or with CT.

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

Radiopharmaceutical: Tc-99m *in vitro* labeled heat damaged red cells.

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

Route of Administration: Intravenous

Patient Preparation: None.

Equipment Setup: Collimator (All): High resolution

Computer setup:

Planar imaging:

- Static acquisition, 256 x 256 matrix, 500K counts

SPECT or SPECT-CT images:

- High resolution collimator, 128 x 128 matrix
- Zoom = 1.0
- 180 degrees, CW (clockwise)
- 64 steps, 15 sec/step
- Noncircular, continuous

Patient Positioning: Supine

Procedure:

Imaging time post-injection: At least 30 minutes.

Consult with the radiologist about the region to be imaged (typically the abdomen). Acquire anterior/posterior images, and laterals if requested.

Consult with the radiologist about the use of SPECT or SPECT-CT (typically needed for this examination) and the region to image. With pediatric patients, confirm with the radiologist whether or not to perform CT with the SPECT

Processing: Static display (lightbox/savescreens) of all static images, labeled with view and region imaged.
Splenic Imaging (continued)

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)
  - Lightbox/savescreen of all labeled planar images (to PACS)
  - 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 ABDOMEN)
  - 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 - ABDOMEN)
- Complete the examination in RIS