General Reference:
The SNMMI Procedure Standard ACNM Practice Guideline for Gastrointestinal Bleeding Scintigraphy 3.0

Common Indications:
Gastrointestinal bleeding scintigraphy is a noninvasive study that is performed on patients with suspected gastrointestinal bleeding to determine whether the bleeding is active, to localize the bleeding site, and to approximate the bleeding volume for prognostic purposes.

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 nuclear medicine studies
2. Recent barium contrast procedures.
3. Pregnancy

Radiopharmaceutical and Route of Administration:
25 mCi Tc99m UltraTag RBCs injected intravenously. 40-50 mCi Tc99m NaTcO4 for use in the UltraTag kit. If UltraTag is unavailable, in-vivo PYP RBC labeling can be utilized.

Procedure:
1. Start IV (preferably a 20g or larger) and withdraw 5ml of the patient's blood into a syringe with 20 units of heparin.
2. Prepare Tc99m-tagged RBCs according to the UltraTag package insert. **Note**: Patient identifier labels (name, DOB, and MR number) must be place on the reaction vial and on the outside of the lead pig.
3. Position the patient supine on the imaging table and initially place the detectors so the xiphoid process is at the top of the field of view.
4. Inject 25 mCi Tc99m-tagged RBCs and acquire a "0-30 minute" duel-detector dynamic acquisition. Start the acquisition (anterior/ posterior, 120 frames, 15 seconds per frame, 128x128 matrix, LEHR) immediately after injection. The top of the liver should be at the top of the FOV. The base of the heart should be barely visible.
5. When the initial 30-minute acquisition is complete, immediately start a "31-60 minute" acquisition with the same parameters. As soon as the second dynamic is started, show the first 30-minute dynamic to the nuclear medicine physician on duty.
6. At the conclusion of the second dynamic, acquire two lateral statics of the abdomen/ pelvis, 300 seconds, 128x128 matrix, LEHR
7. Additional imaging at the discretion of the nuclear medicine physician.

Review:

Both dynamic acquisitions **must be separated** into discrete anterior and posterior dynamic series. Prepare images and documents for clinical review as per **Nuclear Imaging Acquisition and Presentation Guidelines**.

Dr. Barr | Date Implemented: 2007 | Date Revised: 3/2024 | Date Reviewed: 3/2024