# Hepatobiliary study for Biliary Leak

Last updated 06.2018

<table>
<thead>
<tr>
<th>Special Instructions</th>
<th>To be performed at UNMH and SRMC.</th>
</tr>
</thead>
</table>

**Radiopharmaceutical:** Tc-99m Choletec (mebrofenin) or Hepatolite (disofenin, DISIDA)

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

**Route of Administration:** Intravenous for radiopharmaceutical

**Patient Preparation:** No preparation.
- Patient does not need to be NPO, and morphine or other opioid pain medicines may be used.

**Equipment Setup:**

- **Gamma Camera:**
  - LFOV camera for adult studies
  - LFOV camera with ZOOM for studies in small children as appropriate

- **Collimator:**
  - SPECT-CT/E-CAM/EVO: High resolution

- **Computer setup:**
  - **Anterior:**
    - Dynamic acquisition
    - 128 x 128 matrix
    - Zoom 1.0 (greater for children)
    - 1 min/image, 60 images
  - **Rt lateral and delayed images:**
    - Static acquisition
    - 128 x 128 matrix
    - Zoom 1.0 (greater for children)
    - 5 min/image, 1 image in each requested projection

**Patient Positioning:**

- **Anterior:**
  - Liver at top left of screen so that gallbladder and bowel can be visualized.

- **Right lateral:**
  - Liver at top center of screen
Hepatobiliary study for Biliary Leak (continued)
Last updated 06.2018

Procedure:
Begin imaging immediately after injection
- Anterior dynamic images for 60 minutes as above
- Check with radiologist for additional images. Typically, drainage bags should be imaged; if it is not clear which bag is draining bile/gallbladder fossa, consult with the patient’s nurse or the radiologist.
- If no leak is seen in the first hour of imaging, the patient will need to return for delayed images. (typically, at 2-4 hours post-injection or longer); check with radiologist to see if re-injection of radiopharmaceutical is needed and regarding timing of delays.

Processing:
- Anterior 1-hour dynamic images:
  - Merge each 5 images together to display 5-min/frame

Items Required For Complete Study:
- Raw data of all images to PACS
- Lightbox/savescreen of anterior images merged to 5 min/image
- Static or dynamic display of any additional projections/delayed images as noted above
- Transfer all digital images to PACS
- Complete the examination in RIS