Procedure Name: **Graded Compression of Appendix**

Updated 01/30/2012, approved 9/2011

Indications:
May include but not limited to abdomen pain, nausea and/or vomiting, palpable or suspected masses, follow up to prior exam, or any other valid medical reason. There are no absolute contraindications.

General Description:
This is a survey of the right paracolic gutter from the inferior liver edge/right kidney down to the deep right lower quadtrant/pelvis.

Patient Preparation:
None.

Imaging Sequence:
The following imaging sequence is for a normal exam. Include additional images of pathology to demonstrate dimensions in three planes, texture, size, shape, and relationship to adjacent anatomy. Images should be obtained with highest frequency curved-array or linear transducer that allows diagnostic images. Utilize color flow to aid in the determination of any abnormality and to demonstrate blood flow.

1. Image patient data.

2. Patient is in supine position. Longitudinal and transverse images of the deep pelvis to establish whether or not there is free fluid and an obvious mass or abscess. Curved array at highest frequency possible while maintaining diagnostic images.

3. Serial transverse images of the right abdomen with compression from the inferior pole of the right kidney to the cecal tip increasing compression until bowel gas and/or fluid is expressed from the ascending colon and cecum. If a mass or fluid collection is identified, record maximum craniocaudal, transverse and AP images with and without measurements. Gently reduce the compression of the transducer to assess the compressibility of the normal bowel. Care should be taken so that pressure of the transducer is gradually reduced so as to not elicit pain because of rebound tenderness. An inflamed appendix is most often visualized at the base of the cecal tip at maximal graded compression. Image with a curved or linear array at highest frequency possible that allows detection of masses or fluid collections in the right paracolic gutter.

4. Longitudinal and transverse images of the cecal pole and the ileiocecal valve.

5. Longitudinal images of the appendix from base to tip, gray scale and color Doppler.

6. Measurement of the AP dimension of the appendix from outer wall to outer wall with and without compression. Measurements of appendix > 6mm is considered abnormal.

7. Serial transverse views of the appendix with and without compression with and without measurements.

8. Look for adjacent lymph nodes, free fluid or abscess/mass. If any are found, document in two planes and measure.

9. If lymph nodes are found in the RLQ, scan the other three quadrants and document additional nodes, location and size.

10. General scan of all four quadrants looking for mass, fluid or lymph nodes. If intussusception is encountered, document in two planes with and without color Doppler and determine whether small bowel into small bowel or small bowel into large bowel. Provide measurements in all three planes.

11. If appendix is not identified with the bladder as full as it is when they arrive and with application of posterior compression technique in addition to graded compression, empty bladder and scan for an additional 10 minutes.

12. Landmarks: illopsoas muscle, terminal ileum, cecum, urinary bladder and external iliac artery and vein.