

## **PELVIC ULTRASOUND**

### **Patient Prep (recommended):**

1. Patient is to start drinking 32 ounces of water 2 hours prior to exam time, finishing the water 1 hour prior to exam time. The patient should have a full bladder for the exam.
2. If patient is unable to fill bladder please note this exception.

### **Survey:**

Perform a real-time survey of the pelvis with attention to Uterus, Ovaries, bilateral adnexa and cul-de-sac.

### **Image Documentation:**

Each image must be labeled with patient identification, facility identification, examination date, medical record number, accession number, initials of the imaging technologist, organ/area identification, transducer orientation, and patient orientation if different from supine.

If an image of a structure is not well seen or not identified at all, take an image of the area of the structure and annotate the purpose of the image (i.e. ovary not seen).

### **General Procedure Description:**

1. The uterus, ovaries and endometrium should be examined trans-abdominally first. The uterus, ovaries, endometrium and any abnormalities should be recorded. Measurements in two dimensions should be made in one transverse axis and two in longitudinal axis.
2. Volumes of the uterus and ovaries should be calculated and recorded.
3. Measurement of endometrium.
4. Transvaginal exam should be utilized if needed to obtain optimal imaging of the uterus, ovaries, bilateral adnexa, cul-de-sac and any focal abnormalities. The transvaginal exam needs to be explained to the patient and the patient needs to give verbal consent for the exam. The transvaginal exam is immediately terminated if the patient complains of pain or severe discomfort. Termination of the exam needs to be documented in a note in EPIC.
5. Transvaginal studies in the elderly and/or not yet sexually active women should usually be avoided. In these situations, always check with the supervising radiologist before performing the transvaginal probe exam.
6. Pathology should be imaged and measured. Provide color Doppler images of all pathology. All images should have the correct annotation recorded.
7. Color flow images of each ovary should be documented.
8. Color-flow images of important vascularity should be documented as needed.
9. Doppler waveforms should be recorded to document relevant venous and arterial blood supply as the guidelines below state.

## Guidelines for pelvic ultrasound:

### UTERUS

1. Six longitudinal axis images of the uterus. Measurements of the length and depth on the midline scan are to be documented.
2. One midline image of the cervix.
3. Six transverse images of the uterus. Measurement of the width of the uterus is to be documented.
4. A volume measurement of the uterus is to be documented.
5. The uterus size, shape and orientation to be documented.
6. Document any pathology in the uterus. Take longitudinal and transverse measurements as necessary and document color flow. It needs to be clear where the pathology is located in the uterus.

### ENDOMETRIUM

1. Accurate images of the endometrium documented in long and transverse axis. In the long axis, a measurement of the endometrium needs to be documented. If fluid is noted within the endometrium, measure the two separate layers of the endometrium excluding the fluid. These two measurements will be added together for the endometrium thickness.
2. Color flow image of the endometrium.
3. If pathology is noted in the endometrium and the ultrasound equipment has the capability to perform 3D imaging, provide 3D coronal views of the endometrium. If unable to perform 3D imaging, provide Cine loop (clip store) of the endometrium.

### OVARIES:

1. Two longitudinal axis images of each ovary. Measurements of the length and depth are to be documented.
2. Two transverse axis images of each ovary. Measurement of the width to be documented.
3. A volume measurement of each ovary documented.
4. Color flow image of each ovary documented.
5. Doppler waveforms of each ovary should be recorded to document relevant venous and arterial blood supply as the guidelines below state. \* See Below
6. If an ovary can not be located, take an image of that area of the structure and annotate the purpose of the image (i.e. ovary not seen).
7. Document any cysts, follicles, solid masses or other pathology in the ovaries. Take longitudinal and transverse measurements as necessary. Document color flow and Doppler waveforms as needed. \* See Below

### ADNEXA:

1. One longitudinal axis image of each adnexa to be documented.
2. One transverse image of each adnexa to be documented.

3. If pathology is noted, assess the relationship to the ovaries and uterus.

### CUL-DE-SAC:

1. One long axis image of the cul-de-sac.
2. One transverse image of the cul-de-sac.

### IUD

1. Images of the IUD documented in longitudinal and transverse axis showing its location in the endometrium.
2. In the longitudinal axis measure the thickness of the endometrium.
3. Provide a measurement from the superior edge of the IUD to the superior edge of the endometrium.
4. Provide a cine loop (clip store) of the uterus and IUD in longitudinal and transverse axis.
5. If the ultrasound equipment has the capability to perform 3D imaging, provide 3D coronal views of the uterus with the IUD. Make sure the arms of the IUD are visualized in the 3D imaging.

### \* Guidelines for Doppler waveforms of the ovaries.

#### Exam Indication:

1. Screen for ovarian cancer.
  - a. If an ovarian mass is noted with a maximum diameter greater than 4 cm.
2. Pelvic pain (NON STAT)
  - a. Pain duration for less than one week.
3. Pelvic pain (STAT)
  - a. Evaluating ovary for torsion, if pain duration for less than one week or if requested in order.
  - b. A pregnant patient with pain does not require Doppler waveforms unless the ordering physician is concerned about ovarian torsion. If an abnormality is noted in the ovary Doppler waveforms can be done.
4. Pelvic mass (optional)
  - a. For an ovarian or adnexal mass if maximum diameter greater than 4 cm.
  - b. Non fibroid uterine mass if noted.
  - c. Cervical mass if noted.
  - d. May need to consult with radiologist.

All color Doppler images should be with and without color.

All measurement images should be with and without measurement.

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