

## **FEMALE PELVIS – GYN:**

- Prep: Patient to arrive with a partially full bladder.
- Basic Principle: Use appropriate transducer for transabdominal and endovaginal approaches. Endovaginal imaging is routine or a sole substitute because it is the preferred method for quality imaging. The contraindications would be patient refusal, lack of patient tolerance or premenarche.
- All male sonographers will have a chaperone (not a family member) present for endovaginal imaging.
- **TRANSABDOMINAL IMAGING:**
  - Images should consist of longitudinal and transverse scans of:
    - Uterus – measure length (fundus to cervix), AP (on long axis) and width (axial) – if well seen.
    - Cervix
    - Right and Left adnexa
    - Cul de sac
    - Measure ovaries in three dimensions if well seen
    - Bladder
  - If an endovaginal approach will not be used also image the following transabdominally:
    - Endometrial thickness
    - Doppler flow in ovaries if indicated
    - Uterine volume
- **ENDO VAGINAL IMAGING:**
  - Explanation of procedure and patient's verbal consent should be obtained.
  - Examination of the uterus should include the following:
    - Uterine size, shape, and orientation. Measure the uterine length (fundus to external cervical os), AP (same long axis perpendicular to length, from anterior to posterior), and width (maximum width in axial or coronal plane). Obtain uterine volume.
    - Myometrium and cervix should be evaluated for contour changes, echogenicity, masses, and cysts.
    - Reconstructed coronal view of the uterus from a 3D volume should be obtained if possible.
  - Examination of the endometrium should include the following:
    - Endometrial thickness, focal abnormality, and the presence of fluid or masses within the endometrium; color flow any focal abnormalities.
    - Should be measured on the midline longitudinal image, including anterior and posterior portions of the basal

- endometrium and excluding adjacent hypoechoic myometrium or any endometrial fluid.
- If the endometrium is difficult to image in its entirety, or ill-defined, it should be reported.
- If the patient has an IUD, its location should be documented with coronal reconstructions.
- Examination of the ovaries and adnexa should include the following:
  - Ovarian size should be measured in 3 dimensions (width, length, and depth) on views in two orthogonal planes. An ovarian volume should be calculated.
    - If PCOS is suspected an ovarian volume and follicle count should be obtained. Normal ovarian volume is less than 10ml. Normal follicle count is less than 25 per ovary.
  - Any ovarian abnormalities should be documented, including simple cysts that are larger than 3cm.
  - Adnexal region should be surveyed for abnormalities, particularly masses or dilated tubular structures. If any are noted, its relationship to the uterus and ovaries should be assessed, the size and ultrasound characteristics documented.
  - Spectral, color, and/or power Doppler may be useful to evaluate the vascular characteristics of pelvic lesions.
- Examination of the cul-de-sac should include the following:
  - This area should be evaluated for the presence of free fluid or mass.
  - If mass is detected, its size, position, shape, sonographic characteristics, and relationship to the ovaries and uterus should be documented.