COMPLETE PELVIC ULTRASOUND PROTOCOL (UPELTV)

UPELTV IS A COMPLETE PELVIC EXAM, INCLUDING TRANSABDOMINAL AND TRANSVAGINAL FOR PATIENTS WITH UTERUS AND BOTH OVARIES PRESENT. See below for other codes as needed.

PATIENT PREP: No prep unless patient cannot tolerate transvaginal, then patient will need to come with a full bladder.

***If a male sonographer is doing the scan, there will need to be a female chaperone present for the transvaginal or translabial portion of the exam.

ADDITIONAL CODES TO BE USED AS NEEDED:

- **UOB1 & UOBTV** – To be used in any case with positive HCG regardless of structures seen.
- **UPELL & UTVAG** – Use both of these charges for patients in cases of hysterectomy or unilateral or bilateral oophorectomy instead of UPELTV when a transabdominal and transvaginal exam was performed.
- **UPELC** – Transabdominal imaging only when uterus and both ovaries are present.
- **UPELL** – Transabdominal imaging only in cases of hysterectomy or unilateral or bilateral oophorectomy.
- **UTVAG** – Transvaginal only
  - Follicular studies
  - Transvaginal only exam can be done when a follow up is requested specifically for following up ovarian cysts if done less than 2 months from initial exam.

- When spectral dopplers are performed, one of the following should be added to the exam:
  - **UORGDC** if arterial and venous flow is seen
  - **UORGDL** if only arterial OR venous flow is seen

- When 3D imaging is performed, it needs to be mentioned in the Method section of the VP report, and one of the following should be added in the EPIC Charge Capture section of the End Exam Navigator:
  - If rendering done on the machine – 3D w/o Independent Misc
  - If rendering done in Viewpoint – 3D w Independent Misc

IMAGES TO OBTAIN

**Transabdominal and Transvaginal images:**
Start with transabdominal and document as much as possible. Have patient empty bladder and do the transvaginal exam, performing the same images.

**CERVIX:**
- Sagittal image of cervix.
- Transverse/Coronal image of cervix.
- Orientation and evaluation of cervical masses.
**UTERUS:**
- Sagittal image of uterus at middle, right and left sides.
- Sagittal image with measurements in long and AP dimensions. Cervix should not be included in the longitudinal measurement.
  - Normal uterine volume range is from 15-53cc
- Image showing size, shape, and orientation of uterus.
- Transverse/Coronal images at superior, middle and LUS
- Transverse/Coronal images with width measurement.
- Cine clip of uterus in sagittal and transverse/coronal on every exam.
- Document any abnormality and measure in three dimensions.

**Measuring fibroids:** See FIGO classification chart on page 5.
- Measure 3 largest fibroids and report location.
- Measure additional fibroids if they are submucosal or pedunculated.
- If the indication for exam is bleeding, also measure any submucosal fibroids regardless of size.

**ENDOMETRIUM:**
- Measure thickness in a sagittal plane.
- Evaluate echogenicity and position within the uterus.
- Color image of the endometrium in a sagittal plane.
- Document any abnormality and measure in three dimensions.
- If endometrial polyps are suspected
  - Cine sweep in transverse/coronal showing the endometrial cavity
  - Use color imaging to assess for presence of a vascular stalk.

**MYOMETRIUM:**
- Evaluate for contour changes, echogenicity, fibroids and masses.

**3D IMAGES OF THE UTERUS are required in the following circumstances:**
- If a uterine malformation is suspected on transabdominal imaging or is included in indication for exam. (ie arcuate or bicornuate uterus suspected)
- In cases of infertility with suspected uterine malformation.
- **IUD present** - for all cases involving pain or if the indication is anything that involves the uterus, including bleeding or fibroids. If the indication is strictly involving the ovaries, a 3D it is not needed (ie F/U ovarian cyst.)
- **Cornual ectopic suspected** – 3D to be obtained in a coronal plane

**3D IMAGES TO OBTAIN:**
- Perform a 3D cine sweep in sagittal and coronal.
- Save 3D volume/data, as well as 3D Sweep. This allows the 3D volume to be rendered on the machine; the 3D Sweep can be rendered on Viewpoint.
- Render image on ultrasound machine or in Viewpoint to obtain an image showing location of IUD.
- 3D imaging needs to be mentioned in the Method section of the VP report.
- Add required charge in EPIC:
  - If rendering done on the machine – 3D w/o Independent Misc
  - If rendering done in Viewpoint – 3D w Independent Misc
ADNEXA:
- Evaluate region of fallopian tubes, evaluate for dilatation and masses.
- Sagittal and transverse image of right and left adnexa.
- Cine clip if abnormality seen or if ectopic pregnancy is suspected.

OVARIES:
- At least 2 sagittal images of right and left ovary without measurements
- Sagittal measurement of the right and left ovary in long and AP.
- At least 2 transverse images of right and left ovary without measurements
- Transverse width measurement of the right and left ovary.
- Evaluate size, shape, contour, echogenicity and position relative to the uterus.
- Cine in coronal of right and left ovaries.
- Additional cine in sagittal if abnormality seen.
- Document any abnormality and measure in three dimensions.

Measuring Ovarian Cysts:
- If premenopausal, measure simple cysts over 1cm in size, only include measurements in report if over 5 cm.
- If postmenopausal or perimenopausal, measure and report any cyst over 1 cm.
- For complex cysts with suspicious characteristics such as thick septations or mural nodules, measure cyst regardless of size and evaluate for internal vascularity with color doppler, power doppler or MFI within nodule or septation.
- Spectral doppler does not need to be performed on large cysts unless the patient is having acute pain <6 days.

SPECTRAL DOPPLER IMAGING: To be used on the ovaries in cases of acute pain less than <6 days, not for cases of chronic pain greater than a week.

POSTERIOR CUL DE SAC:
- Evaluate for presence of free fluid or mass.
- Evaluate echogenicity and presence of debris within fluid.
- **Morrison's Pouch**: Evaluate when a significant amount of free fluid is present in the cul de sac or when ectopic pregnancy is suspected.

TRANSLABIAL: Perform if indicated, to document cervical length, or if the patient cannot tolerate transvaginal exam.

ADDITIONAL IMAGES FOR SPECIFIC INDICATIONS:

ECTOPIC PREGNANCY EVALUATION- ALSO SEE FIRST TRIMESTER PROTOCOL. If no definite intrauterine pregnancy is identified, evaluation for ectopic pregnancy is required. Billing codes to be used: UOB1 & UOBTV
- Take at least 2 cine clips in sagittal and transverse of each adnexa.
- Use color flow to carefully sweep through and thoroughly evaluate both adnexa for any hypervascular areas or ring of fire that is classically seen with ectopic pregnancies.
- Perform 3D of the uterus if cornual ectopic pregnancy is suspected and save 3D data and 3D sweep.
- Measure any mass or abnormality seen
- Document free fluid and note if debris seen within.
FOLLICLE STUDIES: Full transvaginal Pelvic US Protocol, transabdominal images are only needed if structures not well seen on transvaginal imaging.

- Count and measure (in 3 dimensions) each follicle over 10mm on each ovary.
- Count all follicles under 10 mm on each ovary and document in report.

PELVIC CONGESTION: Only to be performed when requested. Document the following with transvaginal imaging:

- Enlarged adnexal veins (subjective assessment)
- Color Flow: Cine clip documenting right and left adnexal veins while the patient performs the Valsalva maneuver. This helps to determine if there is reversal of flow in adnexal veins. Document arcuate vein seen running transversely along fundus.
- Spectral Doppler: Document the right and left adnexal veins and left and right iliac veins with spectral Doppler while patient performs Valsalva maneuver looking for reversal of flow.
- Billing code to be added for limited venous spectral doppler evaluation: UORGL

ENDOMETRIOSIS - SLIDING SIGN: Sliding Sign should be performed on patients with chronic pain or if endometriosis is suspected. It does not need to be used for acute pain or pain due to other reasons.

- To perform the sliding sign, position the probe in the posterior fornix and then push against the rectum to see if the rectum moves free of the posterior cervix/uterus.
- If rectum freely moves across cervix/uterus, this is normal and is a “positive sliding sign.” If it does not slide freely, it is abnormal and is a “negative sliding sign.” A negative sliding sign suggests adhesions and deep infiltrating endometriosis. Include whether there is a positive or negative sliding sign in the report.
- Evaluate for hypoechoic masses with tapering ends in the rectosigmoid wall which may be seen in deeply infiltrating endometriosis.

POLY CYSTIC OVARIES: According to the Rotterdam Criteria, PCOS ultrasound criteria is:

- Either 25 or more follicles measuring 2-9mm in diameter or increased ovarian volume >10cm3. Only one ovary needs to fit this description. Volume does not apply to women taking oral contraceptive pill, as ovarian size is reduced, even though polycystic appearance may persist.
- If there is evidence of a dominant follicle(>10mm) or a corpus luteum on either ovary, the scan should be repeated during the next cycle.
- Menstruating women should be scanned in the early follicular stage (Day 3-5). Oligo/amenorrhoeic women should be scanned either at random or between days 3-5 after a progestogen-induced bleed.

ACUTE RLQ PAIN (ER patients, etc): Document right ureter and evaluate for possible stone when performing transvaginal imaging.
UTERINE MALFORMATIONS

FIGO CLASSIFICATIONS FOR FIBROIDS:
**Transvaginal probe disinfection: See disinfection instructions using the Trophon Machine in the utility room.**

***If a male sonographer is doing the scan, there will need to be a female chaperone present for the transvaginal or translabial portion of the exam.***

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