



CLINICAL GUIDELINES

Pelvis Imaging Guidelines

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eviCore healthcare Clinical Decision Support Tool Diagnostic Strategies: This tool addresses common symptoms and symptom complexes. Imaging requests for individuals with atypical symptoms or clinical presentations that are not specifically addressed will require physician review. Consultation with the referring physician, specialist and/or individual's Primary Care Physician (PCP) may provide additional insight.

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Abbreviations for Pelvis Imaging Guidelines

CA-125	cancer antigen 125 test
CT	computed tomography
FSH	follicle-stimulating hormone
GTN	gestational trophoblastic neoplasia
HCG	human chorionic gonadotropin
IC/BPS	interstitial cystitis/bladder pain syndrome
IUD	intrauterine device
KUB	kidneys, ureters, bladder (frontal supine abdomen radiograph)
LH	luteinizing hormone
MRA	magnetic resonance angiography
MRI	magnetic resonance imaging
MSv	millisievert
PA	posteroanterior projection
PID	pelvic inflammatory disease
TA	transabdominal
TSH	thyroid-stimulating hormone
TV	transvaginal
UCPPS	Urologic Chronic Pelvic Pain Syndrome
WBC	white blood cell count

General Guidelines (PV-1)

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General Guidelines (PV-1.0)

- A current clinical evaluation since the onset or change in symptoms is required before advanced imaging can be considered. The clinical evaluation should include a relevant history and physical examination including a gynecological and/or urological exam, appropriate laboratory studies, and non-advanced imaging modalities such as plain x-ray or Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or Transvaginal ultrasound (CPT® 76830) and/or Transperineal ultrasound (CPT® 76872).
 - ◆ Other meaningful contact (telehealth visit, telephone call, electronic mail or messaging) since the onset or change in symptoms for follow up visit by an established individual can substitute for a face-to-face clinical evaluation.
- The use of gynecology CPT codes for pregnant women is not supported. Therefore, transvaginal ultrasound (CPT® 76830) and pelvic ultrasound (CPT® 76856 or CPT® 76857) are not supported for those with a positive pregnancy test or known pregnancy. If a pregnancy test is positive, then obstetrical CPT codes are indicated.
- The uterus, tubes and ovaries arise out of the pelvis and are considered pelvic organs. If the uterus rises out of the pelvic cavity, the imaging field can be determined on scout films. Imaging of the abdomen is not routinely supported for problems suspected to arise from the pelvis unless specifically described in other areas of the guidelines.
- The scout images (CT) and localizer images (MRI) are used to define the imaging field that is relevant to anatomical structures of clinical interest. The imaging field is defined by this clinical question, not by the imaging procedure code. The imaging code indicates the general anatomical region but does not define the specific imaging protocol or sequences.

General Guidelines – Overview (PV-1.1)

- When indicated, pregnant women should be evaluated with ultrasound or MRI without contrast to avoid radiation exposure. In carefully selected clinical circumstances, evaluation with CT may be considered with careful attention to technique and radiation protection as deemed clinically appropriate.

Ultrasound

- Transvaginal ultrasound is the recommended modality for imaging; no alternative modality has demonstrated sufficient superiority to justify routine use, and Transvaginal (TV) ultrasound (CPT® 76830) is the optimal study to evaluate adult female pelvic pathology.
- Pelvic ultrasound (complete CPT® 76856, or limited CPT® 76857) can be performed if it is a complementary study to the TV ultrasound. It may substitute for TV in pediatric individuals or non-sexually active females.
- Transperineal ultrasound (CPT® 76872) can be performed for cases of suspected urethral abnormalities, urinary incontinence, pelvic prolapse, or vaginal cysts.

- CPT® 76942 is used to report ultrasound imaging guidance for needle placement during biopsy, aspiration, and other percutaneous procedures.

Soft Tissue Ultrasound

- Pelvic wall, buttocks, and penis - CPT® 76857

Scrotal Ultrasound

- See
 - ◆ **Impotence/Erectile Dysfunction (PV-17.1)**
 - ◆ **Penis-Soft Tissue Mass (PV-18.1)**
- Ultrasound scrotum and contents - CPT® 76870

3D Rendering with Ultrasound

- 3D Rendering (CPT® 76376 or CPT® 76377)
 - ◆ CPT® 76377 (3D rendering requiring image post-processing on an independent work station) or CPT® 76376 (3D rendering not requiring image post-processing on an independent workstation) can be considered in the following clinical scenarios:
 - Uterine intra-cavitary lesion when initial ultrasound is equivocal (See **Abnormal Uterine Bleeding (AUB) (PV-2.1)** and **Leiomyoma/Uterine Fibroids (PV-12.1)**)
 - Hydrosalpinges or peritoneal cysts when initial ultrasound is equivocal (See **Complex Adnexal Masses (PV-5.3)**)
 - Lost IUD (inability to feel or see IUD string) with initial ultrasound (See **Intrauterine Device (PV-10.1)**)
 - Uterine anomaly is suspected on ultrasound (See **Uterine Anomalies (PV-14.1)**)
 - Infertility if ultrasound is indeterminate or there is clinical suspicion for intra-cavitary lesion (such as polyp or fibroid), hydrosalpinx, uterine synechia, adenomyosis or uterine anomalies (See **Initial Infertility Evaluation, Female (PV-9.1)**)
- There is currently insufficient data to generate appropriateness criteria for the use of 3D and 4D rendering in conjunction with Obstetrical ultrasound imaging. Per ACOG, proof of a clinical advantage of 3-dimensional ultrasonography in prenatal diagnosis, in general, is still lacking.

Other Ultrasound

- CPT® 93975 Duplex scan (complete) of arterial inflow and venous outflow of abdominal, pelvic, scrotal contents and/or retroperitoneal organs; complete study.
- CPT® 93976 Duplex scan (limited) of arterial inflow and venous outflow of abdominal, pelvic, scrotal contents and/or retroperitoneal organs; limited study.
- CPT® 93975 and CPT® 93976 should not be reported together during the same session.



CT

- CT is not generally warranted for evaluating pelvic anatomy because it is limited due to soft tissue contrast resolution.

MRI

- Can be used as a more targeted study or for individuals allergic to iodinated contrast.
 - ◆ MRI Pelvis without contrast (CPT® 72195)
 - ◆ MRI Pelvis without and with contrast (CPT® 72197)
 - ◆ MRI Pelvis with contrast only (CPT® 72196) is rarely performed

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Abnormal Uterine Bleeding (PV-2)

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Abnormal Uterine Bleeding (AUB) (PV-2.1)

- Pregnancy test should be done initially if premenopausal
- If pregnancy test is negative or post menopausal initial evaluation includes ANY or ALL of the following:
 - ◆ Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or Transvaginal ultrasound (CPT® 76830), D&C and/or endometrial biopsy
- Advanced imaging is not indicated for endometrial intraepithelial hyperplasia
- If biopsy confirms a malignancy, then see the appropriate oncology guideline.
- If ultrasound is equivocal for intracavitary lesion
 - ◆ Duplex (Doppler) scan (CPT® 93975 complete; CPT® 93976 limited) as an add-on to TV ultrasound (CPT® 76830).
 - ◆ 3-D Rendering (CPT® 76377 or CPT® 76376) as an add-on.
- If ultrasound is equivocal for an intracavitary lesion, saline infusion sonohysterography (CPT® 76831) is indicated.
- CT is not generally warranted for evaluating AUB since uterine anatomy is limited due to soft tissue contrast resolution.
 - ◆ An abnormal endometrium found incidentally on CT should be referred for TV ultrasound for further evaluation.
- MRI is not indicated for evaluation of abnormal uterine bleeding, please see specific Pelvis Imaging sections for MRI indications for ultrasound findings such as adnexal mass or uterine fibroids See **Adnexal Mass/Ovarian Cysts (PV-5)** and **Leiomyoma/Uterine Fibroids (PV-12.1)**.

Retained Products of Conception (PV-2.2)

- For abnormal uterine bleeding and/or pelvic pain with concern for retained products of conception (RPOC):
 - ◆ Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or Transvaginal ultrasound (CPT® 76830) can be done one time, repeat US is indicated for continued symptoms
 - ◆ Color Doppler ultrasonography (CPT® 93975 or CPT® 93976) may be added to ultrasound to aid in diagnosis of RPOC
 - ◆ CT Pelvis with and without contrast (CPT® 72194) OR MRI Pelvis with and without contrast (CPT® 72197) can be considered if US with Color Doppler is equivocal AND further imaging is needed for surgical planning

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Amenorrhea (PV-3)

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Secondary Amenorrhea (PV-3.1)

- Pregnancy test should be done initially
- If a pregnancy test is positive:
 - ◆ Refer to the member's individual coverage policy regarding obstetrical imaging indications and appropriate obstetrical imaging procedural codes. Billing of gynecology codes during pregnancy is not supported.
- If a pregnancy test is negative, further evaluation includes any of the following:
 - ◆ FSH, TSH, estradiol, and/or prolactin levels are indicated depending on clinical suspicion.
 - ◆ Serum free and total testosterone and/or DHEAS levels are indicated if there is evidence of hyperandrogenism
 - ◆ Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) for suspected uterine or ovarian pathology
- The results of test(s) above determine the next steps, which include:
 - ◆ For suspected adrenal tumor, See **Adrenal Cortical Lesions (AB-16)** in the Abdomen Imaging Guidelines.
 - ◆ For suspected pituitary tumor, See **Pituitary (HD-19)** in the Head Imaging Guidelines
 - ◆ For suspected Asherman's Syndrome:
 - Hysterosalpingogram (CPT® 74740), sonohysterosalpingography (CPT® 76831), and/or hysteroscopy if ultrasound is indeterminate for Asherman's syndrome.
 - MRI Pelvis without contrast (CPT® 72195) or without and with contrast (CPT® 72197) if hysterosalpingogram (CPT® 74740), sonohysterosalpingography (CPT® 76831), or hysteroscopy is indeterminate for Asherman's Syndrome

Background and Supporting Information

- Asherman's syndrome: an acquired condition which refers to having scar tissue in the uterus

Primary Amenorrhea (PV-3.2)

- Prior to imaging a history, physical examination and Tanner stage should be evaluated.
- Initial evaluation may include pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) if ANY of the following:
 - ◆ Normal pubertal development and negative pregnancy test
 - ◆ Pelvic exam is indeterminate or unable to be performed
 - ◆ Delayed puberty with follicle-stimulating hormone (FSH) or luteinizing hormone (LH) that is elevated for the individual's age and Tanner stage
- If ultrasound defines a uterine or vaginal anomaly See **Uterine Anomalies (PV-14.1)**
- For suspected pituitary tumor, See **Pituitary (HD-19)** in the Head Imaging Guidelines

Background and Supporting Information

- Evaluation of an individual without a uterus (determined by imaging or examination) may include karyotype and/or testosterone levels.
- TV ultrasound (CPT® 76830) is appropriate in pediatric individuals who are sexually active or use a tampon and consent to the study.

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Adenomyosis (PV-4)

Adenomyosis (PV-4.1)

- TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76856 or CPT® 76857) is the diagnostic procedure of choice for the initial evaluation of suspected adenomyosis. Duplex Doppler (CPT® 93975 or CPT® 93976) can be added if requested.
- MRI Pelvis without contrast (CPT® 72195) or MRI Pelvis without and with contrast (CPT® 72197) is considered a second-line imaging option after transvaginal ultrasound if:
 - ◆ Diagnosis is inconclusive for adenomyosis and the individual has failed a 3-month trial of medical treatment and further delineation would affect management
 - ◆ MRI needed to guide the treatment of adenomyosis in an individual with an enlarged uterus, and coexisting leiomyoma/fibroid following indeterminate ultrasound

Background and Supporting Information

Adenomyosis is when endometrial tissue, which normally lines the uterus, moves into the outer muscular walls of the uterus. Adenomyosis is a histologic diagnosis and is suspected by history and physical examination. Ultrasound findings of adenomyosis include heterogeneous myometrium, myometrial cysts, asymmetric myometrial thickness, and subendometrial echogenic linear striations.

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Adnexal Mass/Ovarian Cysts (PV-5)	
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Suspected Adnexal Mass – Initial Evaluation (PV-5.1)

- A potential mass is found on exam and/or found incidentally on other imaging
- Transvaginal (TV) ultrasound imaging (CPT® 76830) is the initial study of choice.
 - ◆ Pelvic ultrasound (CPT® 76856 or CPT® 76857) can be performed if requested as a complimentary study to the TV ultrasound.
 - ◆ Once confirmed, Color Doppler ultrasonography (CPT® 93975 or CPT® 93976) may be useful to evaluate the vascular characteristics of adnexal masses.
- MRI Pelvis without contrast (CPT® 72195), OR without and with contrast (CPT® 72197; CPT® 72195 if pregnant) if ultrasound does not identify the origin of the pelvic mass (adnexal, uterine, or other in etiology).
 - ◆ If the mass is unrelated to female pelvic anatomy, See **Abdominal Mass (AB-13)** in the Abdomen Imaging Guidelines.
 - ◆ The uterus, tubes and ovaries arise out of the pelvis and are considered pelvic organs. If the uterus rises out of the pelvic cavity, the imaging field can be determined on scout films. Imaging of the abdomen is not supported for problems suspected to arise from the pelvis.

Background and Supporting Information

- Consultation with or referral to a gynecologic oncologist is recommended for women with an adnexal mass who meet one or more of the following criteria:⁷
 - ◆ Postmenopausal with elevated CA-125 level, ultrasound findings suggestive of malignancy, ascites, a nodular or fixed pelvic mass, or evidence of abdominal or distant metastasis.⁷
 - ◆ Premenopausal with very elevated CA-125 level, ultrasound findings suggestive of malignancy, ascites, a nodular or fixed pelvic mass, or evidence of abdominal or distant metastasis.⁷
 - ◆ Premenopausal or postmenopausal with an elevated score on a formal risk assessment test such as the multivariate index assay, risk of malignancy index, or the Risk of Ovarian Malignancy Algorithm or one of the ultrasound-based scoring systems from the International Ovarian Tumor Analysis group.⁷
- Simple and Complex Adnexal Cysts
 - ◆ Simple cysts are smooth walled and clear without debris.
 - ◆ Complex cysts can have solid areas or excrescences, and/or debris in them, greater than 3mm irregular septations, mural nodules with Doppler-detected blood flow, and/or free abdominal/pelvic fluid.
- Suspected Adnexal Mass – Tumor Markers
 - ◆ The adnexa include the ovaries, Fallopian tubes, and ligaments that hold the uterus in place.
 - ◆ CA-125 is a tumor marker that is useful for the evaluation of adnexal mass:
 - Elevation occurs with both malignant (epithelial cancer) and benign entities (leiomyoma, endometriosis, PID, inflammatory disease such as lupus, and inflammatory bowel disease).
 - Increase in the markers over time occurs with malignancy only
 - Consider tumor markers in individuals with an abnormal ultrasound that is not a simple cyst

- ◆ Other markers include Beta hCG, LDH, and AFP (germ cell tumors) and Inhibin A and B (granulosa cell tumor).

Simple Cysts (PV-5.2)

- Simple cysts are smooth, thin walled, anechoic and clear without debris. Simple cysts up to 10 cm in diameter as measured by ultrasound are almost universally benign.
- ◆ Repeat TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856)
 - Follow up according to the below schedule if ≤ 10 cm
- ◆ Cysts >10 cm have not been studied and the current recommendation is to consider surgical intervention and/or MRI Pelvis without and with contrast (CPT® 72197).
- ◆ Routine use of 3D rendering (CPT® 76376/CPT® 76377) for evaluation of simple ovarian cysts is not supported.

Simple Cyst Follow-Up		
Size	Pre-Menopausal	Post-Menopausal
≤ 3 cm	➤ None	➤ None
>3 cm to 5 cm	➤ None	➤ Follow-up in 3-6 months with TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856); further follow-up intervals may be adjusted on basis of degree of cyst change. ➤ TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856) can be considered annually and if stable for 2 years or decreasing in size, no further imaging follow-up is needed.
>5 cm to ≤ 10 cm	➤ Follow up in 8-12 weeks (proliferative phase if possible) TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856); further follow-up intervals may be adjusted on basis of degree of cyst change	➤ Follow-up in 3-6 months with TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856); further follow-up intervals may be adjusted on basis of degree of cyst change. ➤ Subsequent follow up with TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856), annually and if stable for 2 years or decreasing in size, no further imaging follow-up is needed.

Complex Adnexal Masses (PV-5.3)

- Ultrasound imaging should provide characteristics of the cyst/mass prior to consideration of advanced imaging.
- Complex cysts found on ultrasound have characteristics that include: solid areas or excrescences, and/or debris, may have greater than 3mm irregular septations, and/or mural nodules with Doppler-detected blood flow, and/or free abdominal/pelvic fluid. Complex cysts have an ORADS score of 2 or higher.
- Routine use of 3D rendering (CPT® 76376/CPT® 76377) for evaluation of complex ovarian cysts is not supported unless otherwise mentioned in the table below.

Follow up Complex Adenxal Masses		
Condition	Pre-Menopausal	Post-Menopausal
Hemorrhagic cyst (ORADS 2)	➤ If initial ultrasound imaging confirms hemorrhagic cyst ≤5 cm no further imaging is necessary ➤ If initial ultrasound imaging confirms hemorrhagic cyst >5 cm but <10 cm, follow up with Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) in 8-12 weeks is indicated. Duplex (Doppler) scan (CPT® 93975 complete; CPT® 93976 limited) may be approved as an add-on to TV ultrasound (CPT® 76830). ◆ If follow-up imaging confirms a hemorrhagic cyst that has not completely resolved or has enlarged, an MRI Pelvis without and with contrast (CPT® 72197) can be considered. ➤ MRI Pelvis without and with contrast (CPT® 72197) maybe approved for Hemorrhagic cyst ≥10cm	➤ Hemorrhagic cyst should not occur in post-menopausal individual. However, if an ultrasound shows a hemorrhagic cyst in this population, MRI Pelvis without and with contrast (CPT® 72197) can be considered

Follow up Complex Adenxal Masses		
Condition	Pre-Menopausal	Post-Menopausal
Endometriomas (ORADS 2)	➤ If initial imaging confirms an Endometrioma, follow-up Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) can be performed at 8 to 12 weeks in the proliferative phase, if possible; duplex (Doppler) scan (CPT® 93975 complete; CPT® 93976 limited) may be approved as an add-on to TV ultrasound (CPT® 76830) ◆ If ultrasound equivocal for Endometriomas, MRI Pelvis without and with contrast (CPT® 72197) ◆ If follow up ultrasound imaging shows changing morphology and/or a vascular component then consider MRI Pelvis without and with contrast (CPT® 72197) ➤ MRI Pelvis without and with contrast (CPT® 72197) maybe approved for Endometriomas ≥10cm	➤ If initial ultrasound imaging confirms an endometrioma, then MRI Pelvis without and with contrast (CPT® 72197) can be considered

Follow up Complex Adenxal Masses		
Condition	Pre-Menopausal	Post-Menopausal
Dermoids (ORADS 2)	➤ If initial ultrasound imaging confirms a Dermoid, follow-up Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) can be performed at 8 to 12 weeks in the proliferative phase, if possible; duplex (Doppler) scan (CPT® 93975 complete; CPT® 93976 limited) may be approved as an add-on to TV ultrasound (CPT® 76830) ◆ If ultrasound equivocal for Dermoid, MRI Pelvis without and with contrast (CPT® 72197) ◆ If follow up ultrasound imaging shows changing morphology and/or a vascular component then consider MRI Pelvis without and with contrast (CPT® 72197) ➤ If surgical resection of a definitive Dermoid is not performed, then follow-up Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) can be obtained every 6 to 12 months ➤ MRI Pelvis without and with contrast (CPT® 72197) maybe approved for Dermoids ≥10cm	➤ If initial ultrasound imaging confirms a Dermoid, then MRI Pelvis without and with contrast (CPT® 72197) can be considered. ➤ If surgical resection of a definitive Dermoid is not performed, then follow-up Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) can be obtained every 6 to 12 months. ➤ If follow-up ultrasound imaging shows changing morphology and/or a vascular component, then consider MRI Pelvis without and with contrast (CPT® 72197). ➤ MRI Pelvis without and with contrast (CPT® 72197) for Dermoids ≥10cm

Follow up Complex Adenxal Masses		
Condition	Pre-Menopausal	Post-Menopausal
Hydrosalpinges (Hydrosalpinx) or Peritoneal cysts (ORADS 2)	➤ If initial imaging confirms hydrosalpinx or peritoneal cysts, advanced imaging is rarely indicated in these clinical scenarios. ➤ If initial ultrasound imaging (CPT® 76857 or CPT® 76856) and/or TV ultrasound (CPT® 76830) is equivocal for Hydrosalpinges or Peritoneal cyst(s), one repeat ultrasound is indicated in 8-12 weeks or following a menstrual cycle to evaluate for resolution. Duplex (Doppler) scan (CPT® 93975 complete; CPT® 93976 limited) may be approved as an add-on to TV ultrasound (CPT® 76830). 3-D Rendering (CPT® 76377 or CPT® 76376) may be approved as an add-on.	➤ If initial imaging confirms hydrosalpinx or peritoneal cysts, advanced imaging is rarely indicated in these clinical scenarios. ➤ If initial ultrasound imaging (CPT® 76857 or CPT® 76856) and/or TV ultrasound (CPT® 76830) is equivocal for Hydrosalpinges or Peritoneal cyst(s), one repeat ultrasound is indicated in 8-12 weeks to evaluate for resolution. Duplex (Doppler) scan (CPT® 93975 complete; CPT® 93976 limited) may be approved as an add-on to TV ultrasound (CPT® 76830). 3-D Rendering (CPT® 76377 or CPT® 76376) may be approved as an add-on.

Complex and/or solid adnexal mass incompletely evaluated by ultrasound

- Generally a repeat ultrasound is recommended (see table above for appropriate time intervals): TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856)
- MRI Pelvis without and with contrast (CPT® 72197, CPT® 72195 if pregnant) one time for any of the following:
 - ◆ To follow masses when they cannot be optimally visualized by ultrasound (e.g. suboptimal sonography due to large mass or obese individual)
 - ◆ Unexplained change of appearance during ultrasound follow-up
 - ◆ Other Individual-driven indications (e.g. the application of established risk prediction models (e.g., family history of ovarian cancer), correlation with abnormal serum biomarkers, and/or pelvic symptoms)
 - ◆ Differentiate the origin of pelvic masses that are not clearly of ovarian origin
 - ◆ ORADS score of 3 or 4.
- Concern for metastatic ovarian malignancy, See **Ovarian Cancer (ONC-21)** in the Oncology Imaging Guidelines

Background and Supporting Information

Pre-Menopausal – see table above

- For women of reproductive age (Pre-Menopausal), evaluation may include a pregnancy test (a quantitative hCG may be necessary if an ectopic pregnancy is suspected), CBC, serial hematocrit measurements, and appropriate cultures.
- Symptomatic individuals often require immediate interventions (antibiotics, surgery, and/or expectant management).
- Ultrasound characteristics usually suggest the diagnosis (ectopic pregnancy, functional cysts, tubo-ovarian abscess (See **Pelvic Inflammatory Disease (PID) (PV-7.1)**), hydrosalpinx, dermoid, endometrioma, hemorrhagic cyst and pedunculated fibroids (See **Leiomyoma/Uterine Fibroids (PV-12.1)**) and direct the treatment.
- An ovarian mass suspicious for metastatic disease (e.g. from breast, uterine, colorectal or gastric cancer) should be evaluated based on the appropriate Oncology Imaging Guidelines.

Post-Menopausal – see table above

- For post-menopausal women, most pelvic complex cysts or solid masses should be evaluated for surgical intervention and have tumor markers (i.e. CA-125) measured.
- Some women for whom the usual management of a pelvic mass would include surgery may be at increased risk for perioperative morbidity and mortality. In such cases, repeat imaging may be a safer alternative than immediate surgery, although the frequency of follow-up imaging has not been determined.

- An ovarian mass suspicious for metastatic disease (e.g. from breast, uterine, colorectal or gastric cancer) should be evaluated based on the appropriate Oncology Imaging Guidelines.

Screening for Ovarian Cancer/Suspected Ovary Cancer (PV-5.4)

- See **Ovarian Cancer (ONC-21)** in the Oncology Imaging Guidelines

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Endometriosis (PV-6)

Endometriosis (PV-6.1)

- TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76856 or CPT® 76857) is the first line diagnostic exam for suspected endometriosis.
- MRI Pelvis without contrast (CPT® 72195) or without and with contrast (CPT® 72197):
 - ◆ Prior to planned surgery for suspected deep pelvic endometriosis such as rectovaginal endometriosis, deeply infiltrative bladder endometriosis, and cul-de-sac obliteration.
 - ◆ To characterize complex adnexal masses as endometrioma if ultrasound equivocal See **Complex Adnexal Masses (PV-5.3)**

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Pelvic Inflammatory Disease (PID) (PV-7)

Pelvic Inflammatory Disease (PV-7.1)

- Clinical examination alone is usually sufficient for confirming the diagnosis of pelvic inflammatory disease. See **Pelvic Pain/Dyspareunia, Female (PV-11.1)** if other causes of pelvic pain are suspected.
- Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) is the initial study for imaging of suspected pelvic inflammatory disease (PID) if diagnosis is uncertain following bimanual pelvic examination and laboratory testing (such as WBC, CRP and ESR, Microscopy of the vaginal secretions, and testing for Neisseria gonorrhoeae and Chlamydia trachomatis) OR for suspected Tubo-Ovarian Abscess (TOA).
- CT Pelvis with contrast (CPT® 72193) or MRI Pelvis with and without contrast (CPT® 72197):
 - ◆ If diagnosis is uncertain following examination, laboratory testing and ultrasound
 - ◆ Ultrasound shows extensive abscess formation and further imaging is needed for treatment planning
 - ◆ Suspected TOA with inconclusive ultrasound
- If suspected abdominal abscess See **Abdominal Sepsis (Suspected Abdominal Abscess) (AB-3.1)**

Background and Supporting Information

PID may be clinically suspected based on findings of abdominal and/or pelvic pain, cervical or vaginal mucopurulent discharge, dyspareunia, inter-menstrual and/or post coital bleeding, fever, low back pain, nausea/vomiting, urinary frequency, cervical motion tenderness, uterine and/or adnexal tenderness on exam.

Laboratory findings may include elevated erythrocyte sedimentation rate, elevated C-reactive protein, lab documentation of cervical infection with N. gonorrhoeae or C. trachomatis, WBC on saline microscopy of vaginal fluid, and/or endometrial biopsy with endometritis.

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Polycystic Ovary Syndrome (PV-8)

Polycystic Ovary Syndrome (PCOS) (PV-8.1)

- Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) is indicated when history, exam, and/or laboratory findings are suspicious for PCOS.
- Laboratory testing to be done prior to advanced imaging: Virilizing hormone levels (Testosterone and DHEAS). Disorders that mimic the clinical features of Polycystic ovary syndrome (PCOS) should be excluded by measuring: TSH, Prolactin, and 17-OHP (hydroxyprogesterone) levels. Others to consider based on the clinical presentation: Cortisol levels, ACTH, dexamethasone suppression testing, IGF-1, FSH, LH, estradiol.
- If elevated serum levels of androgens are found and an adrenal etiology is suspected – See **Adrenal Cortical Lesions (AB-16.1)** in the Abdominal Imaging Guidelines

Background and Supporting Information

- Polycystic ovary syndrome is the most common hormonal disorder among women of reproductive age, and is one of the leading causes of infertility.
- Diagnostic criteria of polycystic ovary syndrome (Two of the following three criteria are required):
 - ◆ Oligo/anovulation
 - ◆ Hyperandrogenism
 - Clinical (hirsutism or less commonly male pattern alopecia) or
 - Biochemical (raised FAI (free androgen index) or free testosterone)
 - ◆ Polycystic ovaries on ultrasound
 - Defined as an ovary containing 12 or more follicles (or 25 or more follicles using new ultrasound technology) measuring 2 to 9 mm in diameter or an ovary that has a volume of greater than 10 mL on ultrasonography. A single ovary meeting either or both of these definitions is sufficient for diagnosis of polycystic ovaries
- Clinical Features of PCOS
 - ◆ Hirsutism and male pattern balding consistent with hyperandrogenism
 - ◆ Irregular or absent menstrual cycles
 - ◆ Subfertility or infertility
 - ◆ Psychological symptoms – anxiety, depression, psychosexual dysfunction, eating disorders
 - ◆ Metabolic features – obesity, dyslipidaemia, diabetes

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Initial Infertility Evaluation, Female (PV-9)

Initial Infertility Evaluation, Female (PV-9.1)

This guideline is not intended for fertility treatment follow-up and management. See individual fertility coverage policy for imaging during active fertility treatment.

- A one time Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) for initial infertility workup.¹
 - ◆ Repeat ultrasounds or serial ultrasounds are not indicated for initial infertility workup
- To evaluate for tubal patency:
 - ◆ Hysterosalpingography (HSG) (CPT® 74740) **or** Sonohysterosalpingography (CPT® 76831)
- If ultrasound is indeterminate or there is clinical suspicion for intra-cavitary lesion (such as polyp or fibroid), hydrosalpinx, uterine synechia, adenomyosis or uterine anomalies:
 - ◆ 3D US imaging (add-on CPT® 76376 or CPT® 76377)
 - ◆ US Color Doppler (CPT® 93975 or CPT® 93976)
 - ◆

Background and Supporting Information

Some payors do not provide coverage for infertility evaluation and/or treatment.

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Intrauterine Device (IUD) and Tubal Occlusion (PV-10)

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Intrauterine Device (PV-10.1)

- Imaging to evaluate position prior to, immediately after and, for example, 6 weeks after IUD insertion is not indicated
- Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) if:
 - ◆ Abnormal pelvic exam prior to IUD insertion, such as pelvic mass, irregularly shaped uterus, or enlarged uterus
 - ◆ Suspected IUD complication:
 - Abnormal IUD position
 - Uterine perforation
 - Severe pain
 - Excessive bleeding
 - Suspected infection
- “Lost” IUD inability to palpate IUD string on pelvic exam, and/or see IUD on speculum exam:
 - ◆ TV ultrasound (CPT® 76830) with or without 3-D Rendering (CPT® 76377 or CPT® 76376)
 - If TV ultrasound is negative or non-diagnostic, Pelvic ultrasound (CPT® 76856 or CPT® 76857):
 - If Pelvic ultrasound is negative or non-diagnostic, plain x-ray should be performed if pregnancy test is negative.
 - CT Pelvis without contrast (CPT® 72192) or CT Abdomen and Pelvis without contrast (CPT® 74176) or MRI Pelvis without contrast (CPT® 72195) can be considered when both ultrasound and plain x-ray are negative or non-diagnostic.
- Removal of IUD
 - ◆ If unable to **palpate**, see, or retrieve IUD string on pelvic exam and/or speculum exam
 - TV ultrasound (CPT® 76830); 3-D Rendering (CPT® 76377 or CPT® 76376) may be an add-on
 - If Pelvic ultrasound is negative or non-diagnostic, plain x-ray should be performed if pregnancy test is negative
 - CT Pelvis without contrast (CPT® 72192) or CT Abdomen and Pelvis without contrast (CPT® 74176) or MRI Pelvis without contrast (CPT® 72195) can be considered when both ultrasound and plain x-ray are equivocal or non-diagnostic
- If pregnancy test is positive:
 - ◆ The use of gynecology CPT codes for pregnant women is not supported. Therefore, transvaginal ultrasound (CPT® 76830) and pelvic ultrasound (CPT® 76856 or CPT® 76857) are not supported for those with a positive pregnancy test or known pregnancy. If a pregnancy test is positive, then obstetrical CPT codes are indicated (**General Guidelines (PV-1.0)**).

Hysteroscopically Placed Tubal Occlusion Device (PV-10.2)

- TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76856 or CPT® 76857) if:
 - ◆ Suspected complication of hysteroscopically placed tubal occlusion device:
 - Abnormal tubal occlusion device position
 - Uterine perforation
 - Severe pain
 - Excessive bleeding

Background and Supporting Information

- As of 2019, neither Essure & Adiana' tubal occlusion device is in production.

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Pelvic Pain/Dyspareunia, Female (PV-11)

Pelvic Pain/Dyspareunia, Female (PV-11.1)

- Often, the history, physical examination, and laboratory data can guide subsequent workup in individuals presenting with pelvic pain. When possible, use the more specific guideline, depending on clinical presentation and the differential diagnosis. (ie-endometriosis **Endometriosis (PV-6.1)**, adnexal mass **Adnexal Mass/Ovarian Cysts (PV-5)**, etc).
- If there is clinical concern that a non gynecological condition is the cause of pelvic pain, such as a vascular, urological or gastrointestinal etiology, see the applicable guideline section(s).
- Premenopausal pelvic pain - Pregnancy test should be done prior to imaging.
 - ◆ If pregnancy test is positive, see the applicable obstetrical imaging policy.
- If pregnancy test is negative or postmenopausal:
 - ◆ Ultrasound – transvaginal (CPT® 76830) and/or pelvic (CPT® 76856 or CPT® 76857)
 - ◆ Duplex Doppler (CPT® 93975 or CPT® 93976) can be added if there is an ovarian mass and/or suspicion of ovarian torsion on the initial ultrasound.
 - ◆ Duplex Doppler (CPT® 93975 or CPT® 93976) for chronic pelvic pain (pelvic pain for 6 months or greater)
- Further imaging as per appropriate section of guidelines (ie-ovarian mass/torsion **Adnexal Mass/Ovarian Cysts (PV-5)**, PID **Pelvic Inflammatory Disease (PV-7.1)**, etc.)
- If initial ultrasound is normal, further evaluation depending on the clinical suspicion may include urological work-up, gastroenterology work-up, laparoscopic evaluation(s) and/or screening for psychosocial factors (such as depression, anxiety). For pelvic pain with dyspareunia, referral for pelvic floor PT, sex therapy or cognitive behavioral therapy can be considered.
- If the initial ultrasound is equivocal for unexplained chronic pelvic pain (pelvic pain for 6 months or greater) and/or above evaluations are non-diagnostic then the following can be considered:
 - ◆ CT Pelvis with contrast (CPT® 72193) OR
 - ◆ MRI Pelvis without contrast or with and without contrast (CPT® 72195 or CPT® 72197)
- Pelvic Pain/Hip Pain - Rule Out Piriformis Syndrome
 - ◆ See **Focal Neuropathy (PN-2.1)** in the Peripheral Nerve Disorders Imaging Guidelines
 - ◆ See **Hip (MS-24)** in the Musculoskeletal Imaging Guidelines

- Work-up of interstitial cystitis/bladder pain syndrome (IC/BPS) should include history, physical exam, laboratory exam (urinalysis and urine culture), cystoscopy, and measurement of post void residual urine by bladder catheterization.
 - ◆ Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830)
 - CT Pelvis with contrast (CPT® 72193) if ultrasound is equivocal for complicated interstitial cystitis/bladder pain syndrome (when ordered by specialist or any provider in consultation with a specialist).
- Proctalgia Syndromes
 - ◆ Prior to advanced imaging, the evaluation of rectal/perineal pain should include:
 - Digital rectal examination (assess for mass, fissures, hemorrhoids, etc.)
 - Pelvic examination in females to exclude PID
 - Recent flexible sigmoidoscopy or colonoscopy subsequent to the start of reported symptoms to exclude inflammatory conditions or malignancy.
 - Endoanal ultrasound (CPT® 76872), MRI Pelvis with and without contrast (CPT® 72197), or CT Pelvis with contrast (CPT® 72193) are appropriate after the above studies have been performed or if laboratory or clinical information suggest infection, abscess, or inflammation

Background and Supporting Information

- Interstitial Cystitis/Bladder Pain Syndrome (IC/BPS) has an unpleasant sensation (pain, pressure, discomfort), perceived to be related to the urinary bladder. It is associated with lower urinary tract symptoms of more than six weeks duration, in the absence of infection or other identifiable causes.
- Proctalgia syndromes are characterized by recurrent episodes of rectal/perineal pain, and may be due to sustained contractions of the pelvic floor musculature.

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Leiomyoma/Uterine Fibroids (PV-12)

Leiomyoma/Uterine Fibroids (PV-12.1)

Leiomyoma are also known as “fibroids.”

The uterus, tubes and ovaries arise out of the pelvis and are considered pelvic organs. If the uterus rises out of the pelvic cavity, the imaging field can be determined on scout films. Imaging of the abdomen is not supported for problems suspected to arise from the pelvis.

- Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) can be performed for the following:
 - ◆ Suspected leiomyoma with symptoms of pelvic pain, suspected ureteral obstruction secondary to inability to void urine, pelvic pressure and/or abnormal uterine bleeding and/or an enlarged uterus found on physical exam with a negative pregnancy test (if pre-menopausal).
 - ◆ Pre-operative prior to myomectomy
 - ◆ Recurrent symptoms such as abnormal bleeding, pain, or pelvic pressure
 - ◆ 3-D Rendering (CPT® 76377 or CPT® 76376) and/or Duplex (Doppler) scan (CPT® 93975 complete; CPT® 93976 limited) if ultrasound is equivocal and intracavitary lesion is suspected, or for surgical planning for myomectomy
 - ◆ There is no current evidence to support 3-D Rendering (CPT® 76377 or CPT® 76376) for planning for uterine artery embolization.
- MRI Pelvis and/or Abdomen to determine surgical approach for hysterectomy is not supported.
- MRI Pelvis without and with contrast (CPT® 72197), or without contrast (CPT® 72195) can be used in the evaluation of leiomyomas for the following:
 - ◆ Guide the treatment of leiomyoma/fibroid in an enlarged uterus with multiple leiomyoma/fibroid following indeterminate ultrasound when myomectomy is planned.
 - ◆ Equivocal sonohysterography or panoramic hysteroscopy with suspected submucous leiomyoma and imaging is needed to plan for myomectomy
 - ◆ Leiomyoma necrosis is suspected
 - ◆ Uterine **artery** embolization is being considered
 - If MRI is equivocal, MRA Pelvis (CPT® 72198) or CTA Pelvis (CPT® 72191) can be considered if requested by or in consultation with the interventional radiologist planning the **uterine artery** embolization
 - There is no evidence to support interval MRI after embolization unless persistent or recurrent symptoms
- If malignancy is suspected, See Oncology Imaging Guidelines.
- CT is generally not warranted for evaluating pelvic anatomy because it is limited due to soft tissue contrast resolution

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Periurethral Cysts and Urethral Diverticula (PV-13)

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Urethral Diverticula (PV-13.2)	38

Periurethral cysts, Skene duct cyst and Gartner's duct cyst (PV-13.1)

- Initial evaluation includes any of the following:
 - ◆ Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or Transvaginal ultrasound (CPT® 76830) and/or Transperineal ultrasound (CPT® 76872)
 - MRI Pelvis without and with contrast (CPT® 72197) can be performed for surgical planning when ultrasound equivocal

Urethral Diverticula (PV-13.2)

- Initial evaluation includes Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or Transvaginal ultrasound (CPT® 76830) and/or Transperineal ultrasound (CPT® 76872)
- Urethrography, or CT Urethrography (CT Pelvis without and with contrast CPT® 72194 or CT Pelvis with contrast CPT® 72193) can be performed to evaluate any urethral abnormalities
- MRI Pelvis without and with contrast (CPT® 72197) can be performed for surgical planning when ultrasound equivocal for urethral abnormalities

Background and Supporting Information

Symptomatic infection of congenital periurethral glands can result in urethral diverticula. Symptoms include pain, urinary urgency, frequency of urination, recurrent urinary tract infection, dribbling after urination, or incontinence.

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Uterine Anomalies (PV-14)

Uterine Anomalies (PV-14.1)

- Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) indicated for initial evaluation. 3-D Rendering (CPT® 76377 or CPT® 76376) may be an add-on if uterine anomaly is suspected on ultrasound.
- If ultrasound is indeterminate:
 - ◆ Sonohysterosalpingography (CPT® 76831)
- Retroperitoneal ultrasound (CPT® 76770 or CPT® 76775) is indicated to evaluate for possible coexisting renal anomalies.
 - ◆ MRI Abdomen without contrast or without and with contrast (CPT® 74181 or CPT® 74183) or CT urography (CT Abdomen and Pelvis without and with contrast CPT® 74178) for indeterminate renal anomaly⁸ on ultrasound.
- An arcuate uterus is considered a normal variant. Therefore, advanced imaging of a known arcuate uterus is not supported.
- MRI Pelvis without and with contrast (CPT® 72197):
 - ◆ Ultrasound is indeterminate for a complex uterine anomaly, or
 - ◆ Requested for surgical planning

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Fetal MRI and Other Pregnancy Imaging (PV-15)

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Fetal MRI (PV-15.1)

CPT® Code Guidance	
➤	Fetal MRI (CPT® 74712) [plus CPT® 74713 for each additional fetus]
➤	Do not report CPT® 74712 and CPT® 74713 in conjunction with CPT® 72195, CPT® 72196, CPT® 72197
➤	If only placenta or maternal pelvis is imaged without fetal imaging, use MRI Pelvis (CPT® 72195)

Indications for Fetal MRI

- Fetal MRI (CPT® 74712) [plus CPT® 74713 for each additional fetus] after 18 to 22 weeks gestation, for assessment of known or suspected fetal abnormalities for counseling, surgical, or delivery planning.
- 3D-4D (CPT® 76376 or CPT® 76377) rendering can be added for surgical planning with diagnosis of complex CHD in the fetus or for surgical planning of other complex fetal malformations
- Repeat fetal MRI (CPT® 74712) [plus CPT® 74713 for each additional fetus] later in pregnancy for:
 - ◆ Delivery or perinatal surgical planning
- Fetal MRI indications include but may not be limited to the following:
 - ◆ Brain
 - Congenital anomalies
 - Ventriculomegaly
 - Agenesis of the corpus callosum
 - Abnormalities of the cavum septum pellucidum
 - Holoprosencephaly
 - Posterior fossa anomalies
 - Malformations of cerebral cortical development
 - Microcephaly
 - Solid or cystic masses
 - Cephalocele
 - Screening fetuses with a family risk for brain anomalies
 - Tuberous sclerosis
 - Corpus callosal dysgenesis
 - Malformations of cerebral cortical development
 - Vascular abnormalities
 - Vascular malformations
 - Hydranencephaly
 - Intra-uterine cerebrovascular accident (CVA)

- ◆ Spine
 - Congenital anomalies
 - Neural tube defects
 - Sacrococcygeal teratomas
 - Caudal regression/sacral agenesis
 - Syringomyelia
 - Vertebral anomalies
- ◆ Skull, face, and neck
 - Masses of the face and neck
 - Vascular or lymphatic malformations
 - Hemangiomas
 - Goiter
 - Teratomas
 - Facial clefts
 - Airway obstruction
 - Conditions that may impact parental counseling, prenatal management, delivery planning, and postnatal therapy
- ◆ Thorax
 - Masses
 - Congenital pulmonary airway malformations (congenital cystic adenomatoid malformation; sequestration, and congenital lobar emphysema);
 - Congenital diaphragmatic hernia
 - Effusion
 - Mediastinal masses
 - Assessment for esophageal atresia
 - Volumetric assessment of lung
 - Cases at risk for pulmonary hypoplasia secondary to oligohydramnios, chest mass, or skeletal dysplasias
- ◆ Abdomen, retroperitoneal and pelvis
 - Bowel anomalies such as anorectal malformations, or complex bowel obstructions such as with megacystis microcolon hypoperistalsis syndrome
 - Abdominal wall defect
 - Mass
 - Abdominal–pelvic cyst
 - Tumors (e.g. hemangiomas, neuroblastomas, sacrococcygeal teratomas, and suprarenal or renal masses)
 - Complex genitourinary anomalies (e.g. cloaca, prune belly syndrome)
- ◆ Congenital Heart Disease (CHD)
- ◆ Skeletal dysplasia
- ◆ Multiple malformations
- ◆ Complications of monochorionic twins/TTTS (eg. Laser treatment of twins, demise of one twin, conjoined twins)
- ◆ Any suspected fetal anomaly associated with severe oligohydramnios or anhydramnios.

Placenta Accreta/Placenta Accreta Spectrum/ Placenta Percreta (PV-15.2)

- Obstetrical Ultrasound is the initial imaging modality, Color Doppler CPT® 93975 Duplex scan (complete) or CPT® 93976 Duplex scan (limited) may be added to evaluate vascularity for suspected or confirmed placenta accreta spectrum
- MRI Pelvis without contrast (CPT® 72195) if the ultrasound is indeterminate or advanced imaging is needed for surgical planning.
- MRI Pelvis without contrast (CPT® 72195) is the appropriate code if only placenta or maternal pelvis is imaged without fetal imaging:
 - ◆ Abdominal imaging is not indicated to evaluate a pelvic organ such as uterus, tubes or ovaries.
 - ◆

C-section or Cornual (interstitial) Ectopic Pregnancy (PV-15.3)

- If a cornual (interstitial) ectopic or C-section scar ectopic pregnancy is suspected on ultrasound:^{9,10}
 - ◆ 3D rendering (CPT® 76376 or CPT® 76377), and/or Color Doppler (CPT® 93976) can be performed with ultrasound
 - ◆ MRI Pelvis without contrast (CPT® 72195) if ultrasound is inconclusive.

Pelvimetry (PV-15.4)

- Pelvimetry (CT or MRI Pelvimetry) lacks sufficient evidence to be clinically useful. Current recommendations are that further randomized control studies be performed before it is adapted into routine clinical practice.^{11,12}

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Molar Pregnancy and Gestational Trophoblastic Neoplasia (GTN) (PV-16)

Molar Pregnancy and GTN (PV-16.1)

- Molar pregnancy – once diagnosed on an Obstetrical Ultrasound individuals should undergo chest x-ray pre- and post-evacuation.
- Individuals with a molar pregnancy and rising hCG levels post evacuation and/or Gestational trophoblastic neoplasia should undergo the following for metastatic work-up.
 - ◆ CT Chest (CPT® 71260) and CT Abdomen and Pelvis (CPT® 74177) with contrast
 - ◆ MRI Brain without and with contrast (CPT® 70553) if pulmonary metastasis

Background and Supporting Information

Gestational trophoblastic neoplasia (GTN) cells are malignant and can metastasize to other organs such as lungs, brain, bone, and vagina. Treatment is usually methotrexate with or without hysterectomy. Weekly hCG tests are performed until they fall to zero.

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Impotence/Erectile Dysfunction (PV-17)

Impotence/Erectile Dysfunction (PV-17.1)

- Imaging depends on the suspected disease:
 - ◆ Penile Doppler ultrasound (CPT® 93980) if erectile dysfunction suspected²
 - ◆ CTA Pelvis with contrast (CPT® 72191) if large vessel vascular insufficiency is suspected following ultrasound.
 - ◆ Duplex ultrasound (CPT® 93980) to assess penile vasculature in Peyronie's disease¹
 - ◆ If male hypogonadism is suspected, See **Pituitary (HD-19)** in the Head Imaging Guidelines
- Functional MRI or PET studies are considered investigational for this indication.

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Penis–Soft Tissue Mass (PV-18)

Penis-Soft Tissue Mass (PV-18.1)

- Penile ultrasound (CPT® 76857) for initial evaluation soft-tissue lesions of the penis, Duplex (Doppler) scan CPT® 93975 complete; CPT® 93976 limited) may be approved as an add-on.
- If primary penile cancer is suspected, biopsy is indicated
 - ◆ For further workup of biopsy confirmed penile cancer See **Cancers of External Genitalia – Initial Work-up/Staging (ONC-24.6)** in the Oncology Imaging Guidelines.
- Peyronie's Disease
 - ◆ Ultrasound (CPT® 76857) recommended
 - ◆ MRI Pelvis without and with contrast (CPT® 72197) if ultrasound is equivocal and surgery or injection therapy is being contemplated

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Male Pelvic Disorders (PV-19)

Male Pelvic Disorders (PV-19.1)

- Prostate
 - ◆ Prostate Disorders
 - Suspected Benign Prostatic Hypertrophy with obstructive voiding symptoms can undergo:
 - Transrectal ultrasound (CPT® 76872) or Pelvis transabdominal ultrasound (bladder and prostate [CPT® 76856 or CPT® 76857])
 - Prostatitis with urinary retention or suspected abscess can undergo any of the following imaging studies:
 - Transrectal ultrasound (CPT® 76872) or Pelvis transabdominal ultrasound (bladder and prostate [CPT® 76856 or CPT® 76857])
 - CT Pelvis with contrast (CPT® 72193) or MRI Pelvis without contrast (CPT® 72195) or with and without contrast (CPT® 72197) if ultrasound is equivocal for abscess or mass.
 - ◆ Prostate Artery Embolization (PAE)
 - Pre-procedure imaging for prostate artery embolization is not supported, because PAE for the treatment of (Lower Urinary Tract Symptoms) LUTS secondary to BPH is not supported by current data and trial designs, and benefit over risk remains unclear. Therefore, PAE is not recommended outside the context of clinical trials.
- Testicular
 - ◆ Hematospermia, transrectal ultrasound (TRUS) (CPT® 76872) can be the initial imaging study in all cases.
 - MRI Pelvis without contrast (CPT® 72195) can be considered to evaluate:
 - Suspected hemorrhage within the seminal vesicles
 - Radiation injury, neoplasia
 - Failure of conservative treatment for 2 weeks
 - Abnormal findings on Transrectal ultrasound
- Rectal
 - ◆ Proctalgia Syndromes
 - Prior to advanced imaging, the evaluation of rectal/perineal pain should include:
 - Digital rectal examination (assess for mass, prostate, fissures, hemorrhoids, etc.)
 - Recent flexible sigmoidoscopy or colonoscopy subsequent to the start of reported symptoms to exclude inflammatory conditions or malignancy
 - Endoanal ultrasound (CPT® 76872), MRI Pelvis without and with contrast (CPT® 72197), or CT Pelvis with contrast (CPT® 72193) are appropriate after the above studies have been performed or if laboratory or clinical information suggest infection, abscess, or inflammation

➤ Bladder

- ◆ Work-up of interstitial cystitis/bladder pain syndrome (IC/BPS) may include history, physical exam, laboratory exam (urinalysis and urine culture), cystoscopy, and measurement of post void residual urine by bladder catheterization
 - Pelvic ultrasound (CPT® 76856 or CPT® 76857)
 - CT Pelvis with contrast (CPT® 72193) if ultrasound is equivocal for complicated interstitial cystitis/bladder pain syndrome (when ordered by specialist or any provider in consultation with the specialist)

Background and Supporting Information

- The proctalgia syndromes are characterized by recurrent episodes of rectal/perineal pain, and may be due to sustained contractions of the pelvic floor musculature.

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Scrotal Pathology (PV-20)

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Scrotal Pathology (PV-20.1)

- Scrotal ultrasound (CPT® 76870) and/or Duplex (Doppler) ultrasound (CPT® 93975 or CPT® 93976) of the scrotum for initial evaluation of scrotal pain or mass
 - ◆ MRI Pelvis without and with contrast (CPT® 72197) or Tc-99m scrotal scintigraphy (CPT® 78761) if ultrasound is inconclusive.^{1,2}
- Scrotal ultrasound (CPT® 76870), MRI Pelvis without and with contrast (CPT® 72197), or CT Pelvis with contrast (CPT® 72193) for cryptorchidism/undescended testis in the adult.
- Scrotal ultrasound and/or Duplex (Doppler) ultrasound (CPT® 76870 and/or CPT® 93975 or CPT® 93976) of the scrotum with color flow mapping in supine and upright positions to assess venous reflux into plexus pampiniformis if varicocele suspected (for example, in inguinal hernia evaluation)
 - ◆ CT Abdomen and Pelvis with contrast (CPT® 74177) for right-sided varicocele, when there is suspicion for intra-abdominal pathology

Background and Supporting Information

- The causes of scrotal pain may include torsion, epididymitis, strangulated hernia, segmental testicular infarction, trauma, testicular tumor, and idiopathic scrotal edema.¹

Paratesticular and spermatic cord masses (PV-20.2)

- Scrotal ultrasound (CPT® 76870) is the appropriate initial imaging procedure.
 - ◆ MRI Pelvis without and with contrast (CPT® 72197), exploration and biopsy are additional considerations if ultrasound is inconclusive.

Testicular Microlithiasis (PV-20.3)

- Scrotal ultrasound (CPT® 76870) for initial evaluation
- Annual Scrotal ultrasound (CPT® 76870) follow-up, only if a risk factor is present which include:
 - ◆ Family history of germ cell tumor
 - ◆ Maldescent
 - ◆ Orchidopexy
 - ◆ Testicular atrophy
- For Personal history of germ cell tumor See **Testicular, Ovarian and Extragonadal Germ Cell Tumors (ONC-20)** in the Oncology Imaging Guidelines

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Fistula in Ano and Perirectal Abscess (PV-21)

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Fistula in Ano (PV-21.1)

- MRI Pelvis without and with contrast (CPT® 72197) is the preferred study.
 - ◆ If MRI cannot be performed, endoscopic ultrasound is superior, and thus preferential, to CT imaging.
 - ◆ CT Pelvis with contrast (CPT® 72193) is an inferior study to either of the above (accuracy of endoscopic ultrasound vs. CT for perianal fistula is 82% vs. 24%) and its use should be limited only to those circumstances in which MRI and endoscopic ultrasound cannot be performed.

Perirectal Abscess (PV-21.2)

- MRI Pelvis without and with contrast (CPT® 72197) is the preferred study
 - ◆ CT Pelvis with contrast (CPT® 72193) can be approved as an alternative study if desired.
- For the evaluation of Perianal and Perirectal Disease related to Crohn's Disease, See **Perirectal/Perianal Disease (AB-23.3)** in the Abdomen Imaging Guidelines.

Pelvic Fistula (PV-21.3)

- History and physical exam (to include pelvic and/or anorectal examination):
 - ◆ Rectovesicular Fistula:
 - MRI Pelvis with and without contrast (CPT® 72197) OR
 - CT Pelvis with contrast (CPT® 72193)
 - ◆ Vaginal Fistula:
 - Enterovaginal, Colovaginal, Rectovaginal or Anovaginal:
 - Anoscopy and/or proctoscopy
 - Endoanal ultrasound (rarely used)
 - MRI Pelvis with and without contrast (CPT® 72197) is the preferred initial modality for suspected enterovaginal fistula
 - CT Pelvis with contrast (CPT® 72193) can be considered if:
 - MRI contraindicated OR urgent evaluation of acute diverticulitis OR early postoperative period
 - Urinary Vaginal Fistula (Ureterovaginal, Vesicovaginal, or Urethrovaginal):
 - Cystoscopy
 - CT urography (CT Abdomen and Pelvis without and with contrast CPT® 74178) and/or CT cystography (CT Pelvis without contrast CPT® 72192) or
 - MRI Pelvis with and without contrast (CPT® 72197)

Background and Supporting Information

- A vaginal fistula is an abnormal communication between the vagina and either a portion of the digestive system or the urinary tract
 - ◆ Causes of vaginal fistula may include IBD, endometriosis, infection, tumor, radiation, obstetrical trauma and surgical injuries.
 - ◆ Symptoms of vaginal fistula-Persistent vaginitis, dyspareunia, perineal dermatitis, foul-smelling vaginal discharge, and/or urinary or fecal incontinence.
- A rectovesicular fistula is an abnormal communication between the rectum and the bladder.
 - ◆ Causes of rectovesicular fistula may include chronic infection, cancer, diverticulitis, IBD, radiation and surgical injuries.
 - ◆ Symptoms of rectovesicular fistula-Bubbles in the urine, brown or cloudy urine, blood in the urine, painful urination, recurrent urinary tract infection, and/or abdominal pain

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Urinary Incontinence/Pelvic Prolapse/Fecal Incontinence (PV-22)

Urinary Incontinence – Initial Imaging (PV-22.1)	57
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Pelvic Prolapse (PV-22.3)	58
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Urinary Incontinence – Initial Imaging (PV-22.1)

- Initial Imaging, associated with other evaluations, are:
 - ◆ Non-Neurogenic Incontinence
 - Measurements of post void residual urine by Bladder ultrasound (CPT® 51798) OR Bladder catheterization
 - In addition to post void residual volume determination, screening for UTI should be considered
 - Urodynamic studies for complex conditions or unclear case of incontinence after basic evaluation
 - Preoperative multichannel urodynamic testing is not needed in women with stress incontinence (uncomplicated) prior to initial incontinence surgery
 - ◆ Neurogenic Incontinence
 - Ultrasound urinary tract (CPT® 76770 or CPT® 76775) and/or urodynamic studies

Background and Supporting Information

Urinary incontinence can be “stress,” “urgency,” or mixed; neurogenic or non-neurogenic; and complicated or uncomplicated. Neurogenic incontinence can occur from cerebral, spinal or peripheral neurological diseases.

Urinary Incontinence – Further Imaging (PV-22.2)

- CT Abdomen and Pelvis, contrast as requested, or CT Pelvis, contrast as requested, can be performed for the following:
 - ◆ Abnormality on ultrasound that requires further evaluation
 - ◆ Complicated incontinence
 - ◆ Suspected fistulae
 - ◆ Detecting ectopic ureters if ultrasound is non-diagnostic
 - ◆ Pre-operative planning for complicated incontinence when ordered by or in consultation with the operating physician

Background and Supporting Information

- MRI may be indicated for evaluation of the brain, spine, or other regions of the nervous system in neurogenic urinary incontinence See **Red Flag Indications (SP-1.2)** and **Myelopathy (SP-7.1)** in the Spine Imaging Guidelines and **Dementia (HD-8.1)** and **Normal Pressure Hydrocephalus (NPH) (HD-8.4)** in the Head Imaging Guidelines
- Complicated urinary incontinence includes:
 - ◆ Failed conservative treatment
 - ◆ Pain or dysuria
 - ◆ Hematuria
 - ◆ Recurrent infection
 - ◆ Previous radical pelvic surgery
 - ◆ Suspected fistula

- ◆ Suspected mass
- ◆ Previous pelvic or prostate irradiation

Pelvic Prolapse (PV-22.3)

- Transvaginal (TV) ultrasound (CPT® 76830) is the initial study of choice
 - ◆ Pelvic ultrasound (CPT® 76856 or CPT® 76857) can be performed if requested as a complimentary study to the TV ultrasound.
 - Transperineal ultrasound (CPT® 76872) can also be performed
- Urodynamic testing may be helpful if there is incontinence with a stage II or greater prolapse or voiding dysfunction
- MRI Pelvis (CPT® 72195 or CPT® 72197) for the following:
 - ◆ Pelvic floor anatomy and pelvic organ prolapse evaluations if exam and TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76856 or CPT® 76857) are equivocal; or
 - ◆ Pre-operative planning for complex organ prolapse when ordered by or in consultation with the operating physician; or
 - ◆ Persistent incontinence following surgery
- Mesh and Graft complications
 - ◆ Diagnostic evaluation for mesh and graft complications may include colonoscopy, cystoscopy, and/or urodynamics
 - ◆ Transvaginal (TV) ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76856 or CPT® 76857), CT Abdomen and/or Pelvis, contrast as requested, MRI Pelvis without contrast or without and with contrast (CPT® 72195 or CPT® 72197) depending on the mesh and graft complication
- Sacral osteomyelitis may be a complication of sacrocolpopexy. MRI Pelvis with and without contrast (CPT® 72197) is indicated for lower back pain and/or suspected sacral osteomyelitis after this procedure.

Fecal Incontinence (PV-22.4)

The evaluation of fecal incontinence generally proceeds as follows:

- Determine the severity of the incontinence (Bristol Stool Scale, Fecal Incontinence Severity Index, etc.)
- History and Physical to include digital rectal examination and perianal pinprick (to assess for neurogenic causes)
- Trial of conservative management
- Diagnostic Testing if symptoms persist to include:
 - ◆ Ano-rectal Manometry
 - ◆ Balloon Expulsion Test

- ◆ Endoanal ultrasound (CPT® 76872) to confirm sphincter defects in individuals with suspected sphincter injury (e.g. history of vaginal delivery or anorectal surgery)
- ◆ MRI Pelvis (CPT® 72197) or MRI Defecography (CPT® 72195) if:
 - Ano-rectal manometry suggests weak sphincter pressures AND/OR there is an abnormal balloon expulsion test
AND
 - There has been a failure of a recent trial of conservative management
AND
 - Surgery is being considered

Background and Supporting Information

With regards to fecal incontinence ACG Guidelines note that “the internal sphincter is visualized more clearly by endoanal ultrasound, whereas MRI is superior for discriminating between an external anal sphincter tear and a scar and for identifying external sphincter atrophy.

However, guidelines adopted by the American Society of Colon and Rectal Surgeons note that “Endoanal ultrasound is a useful and sensitive tool in the evaluation of patients with FI (fecal incontinence), especially when there is a history of vaginal delivery or anorectal surgery. Ultrasound can reliably identify internal and external sphincter defects that may be associated with sphincter dysfunction.” In addition, the guidelines note “Other modalities (eg, MRI) have shown substantial interobserver variability and, at this point, are likely inferior to ultrasound imaging, but they may provide additional information where endoanal ultrasound is unavailable.”

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Patent Urachus (PV-23)

Patent Urachus (PV-23.1)

- Drainage from the umbilicus, redness around umbilicus, abdominal pain, or urinary tract infection from persistent fetal connection between the bladder and the umbilicus can be evaluated by:
 - ◆ Ultrasound (CPT® 76856 or CPT® 76857 and/or CPT® 76700 or CPT® 76705) or voiding cystourethrography (VCUG) (CPT® 74455) for suspected patent urachus
 - ◆ CT Pelvis with contrast (CPT® 72193) or MRI Pelvis without contrast (CPT® 72195) or with and without contrast (CPT® 72197) if the ultrasound is equivocal or if additional imaging is needed for surgical planning if there is a suspected urachal carcinoma or other urachal abnormality.

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Bladder Mass (PV-24)

Bladder Mass (PV-24.1)

- Bladder masses incidentally found on other imaging (ultrasound, cystoscopy or KUB) can be evaluated by:
 - ◆ CT Pelvis without contrast (CPT® 72192) for suspected bladder stone if initial imaging is equivocal or if surgery is planned
 - ◆ CT Pelvis with and without contrast (CPT® 72194) for suspected bladder diverticuli
- See **Oncology Imaging Guidelines** for biopsy confirmed or suspected malignancy

Background and Supporting Information

Symptoms of bladder mass may include hematuria, urgency, frequency, chronic urinary infection, obstruction or urinary retention.

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Ureteral and/or Bladder Trauma or Injury (PV-25)

Ureteral and/or Bladder Trauma or Injury (PV-25.1)

- Abdominal and/or Pelvic ultrasound (CPT® 76700 and/or CPT® 76856) can be approved if requested
- CT cystography (CT Pelvis without contrast CPT® 72192) can be done for suspected bladder injury
- CT Abdomen and Pelvis with OR with and without contrast (CPT® 74177 or CPT® 74178) if:
 - ◆ Suspected iatrogenic/operative injury OR
 - ◆ Blunt trauma and suspected bladder or ureteral injury with one or more of the following (See **Blunt Abdominal Trauma (AB-10.1)** in the Abdomen Imaging Guidelines):
 - Abdominal pain or tenderness
 - Pelvic or femur fracture
 - Hematocrit <30%
 - Hematuria
 - Non-examinable individual (intoxicated, less than fully conscious, Glasgow Coma Scale Score >13, etc.)
 - Evidence of abdominal wall trauma or seat-belt sign
 - Rapid deceleration injury

Background and Supporting Information

Bladder trauma: CT cystography- CT Pelvis without contrast allowing the radiologist or Urologist to instill contrast to r/o bladder injury and/or perforation.

Ureteral injury: *“Iatrogenic ureteral injuries can occur during gynecologic, obstetric, urologic, colorectal, general, or vascular surgery; gynecologic surgery accounts for more than half of all iatrogenic injuries.”*²

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Gender Affirmation Surgery; Pelvic (PV-26)

Gender Affirmation Surgery; Pelvic (PV-26.1)

- Preoperative imaging is supported as outlined below if the individual has a health plan benefit covering pelvic gender affirmation surgery. Preoperative imaging is not supported if pelvic gender affirmation surgery is not a health plan covered benefit.
- Preoperative imaging:
 - ◆ Metoidioplasty
 - Preoperative imaging is not supported
 - ◆ Phalloplasty
 - Muscular flaps used for neophallus creation are generally obtained from anterior lateral thigh (pedicled flap) or forearm (radial free flap)
 - For planned radial free flap, upper extremity CT angiography (CPT® 73206) of anticipated donor site (unilateral) for evaluation of perforator anatomy.
 - For planned anterior lateral thigh flap, bilateral lower extremity CT angiogram (CPT® 73706)
 - If iodinated contrast allergy, MRA (contrast as requested)
 - ◆ Vaginoplasty
 - Preoperative imaging is not supported
- Postoperative complications:
 - ◆ Limited Pelvic ultrasound (CPT® 76857) and Doppler ultrasound (CPT® 93975 complete or CPT® 93976 limited)
 - Monitoring of flap perfusion after phalloplasty for suspected vascular insufficiency
 - ◆ CT Abdomen and Pelvis OR CT Pelvis (contrast as requested - CPT® 74176, CPT® 74177, CPT® 74178, CPT® 72192, CPT® 72193, or CPT® 72194) for suspected postoperative complications
 - Complications after surgery may include hematoma, seroma, abscesses, urinary tract injury, etc. (See **Ureteral and/or Bladder Trauma or Injury (PV-25.1)** for ureteral and/or bladder injury)
 - ◆ MRI Pelvis with and without contrast (CPT® 72197)
 - Suspected fistula
 - Non diagnostic CT scan AND further imaging is needed for treatment planning

Background and Supporting Information

- Metoidioplasty-Metoidioplasty is a procedure using clitoral hypertrophy and clitoral release to form masculine-appearing external genitalia
- Phalloplasty-Phalloplasty includes the creation of a neophallus using muscular flaps
- Vaginoplasty-Vaginoplasty refers to the surgical creation of a vulva and vaginal canal

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