



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

PV-1: General Guidelines

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PV-1.0: General Guidelines

- A current clinical evaluation (within 60 days) is required before advanced imaging can be considered. The clinical evaluation may include a relevant history and physical examination, 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).
 - ◆ The clinical evaluation may also include a gynecological and/or urological exam with appropriate laboratory studies such as blood count, tumor markers and endocrine evaluations.
 - ◆ Other meaningful contact (telehealth visit, telephone call, electronic mail or messaging) 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 the obstetrical CPT codes may be supported.
- 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.

PV-1.1: General Guidelines - Overview

- See **PV-1.0: General Guidelines**
- 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 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
- Groin - CPT® 76882

Scrotal Ultrasound

- See
 - ◆ **PV-17: Impotence/Erectile Dysfunction**
 - ◆ **PV-18: Penis-Soft Tissue Mass**
- Ultrasound scrotum and contents - CPT® 76870

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.
- 3D Rendering (CPT® 76376 or CPT® 76377) See **Preface-4.1: 3D Rendering** in the Preface Imaging Guidelines.
 - ◆ 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 **PV-2.1: Abnormal Uterine Bleeding (AUB)** and **PV-12.1: Leiomyomata**)
 - Hydrosalpinges or peritoneal cysts when initial ultrasound is equivocal (See **PV-5.3: Complex Adnexal Masses**)
 - Lost IUD (inability to feel or see IUD string) with initial ultrasound (See **PV-10.1: Intrauterine Device**)
 - Uterine anomalies with initial ultrasound (See **PV-14.1: Uterine Anomalies**)
 - Infertility (See **PV-9.1: Initial Infertility Evaluation, Female**)

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

PV-1.2: Gender Affirmation Surgery; Pelvic

- Preoperative imaging is approvable as outlined below if the individual has a health plan benefit covering pelvic gender affirmation surgery. Preoperative imaging is not approvable 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 may be approved for evaluation of perforator anatomy.
 - For planned anterior lateral thigh flap, bilateral lower extremity CT angiogram (CPT® 73706) may be approved.
 - ◆ Vaginoplasty
 - Preoperative imaging is not supported
- Postoperative complications:
 - ◆ Complications after surgery may include hematoma, seroma, abscesses, fistula, urinary tract injury, etc.
 - CT Abdomen and Pelvis OR CT Pelvis (contrast as requested - CPT® 74176, CPT® 74177, CPT® 74178, CPT® 72192, CPT® 72193, or CPT® 72194) can be approved for suspected postoperative complications
 - MRI Pelvis with and without contrast (CPT® 72197) may be indicated for surgical planning for repair of suspected fistula
 - Rectovaginal, vesicovaginal or urethrovaginal fistula may occur

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PV-2: Abnormal Uterine Bleeding

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PV-2.1: Abnormal Uterine Bleeding (AUB)

- Initial evaluation may include ANY 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. See **ONC 22.2: Uterine Cancer – Initial Work-up** in the Oncology Imaging Guidelines
- If ultrasound is equivocal for intracavitary lesion
 - ◆ 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 ultrasound is equivocal for an intracavitary lesion, saline infusion sonohysterography (CPT® 76831) may be 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 **PV-5: Adnexal Mass/Ovarian Cysts** and **PV-12.1: Leiomyomata**.

PV-2.2: Retained Products of Conception

- 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 may be 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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PV-3: Amenorrhea

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PV-3.1: Secondary Amenorrhea

- Pregnancy test should be done initially
- If a pregnancy test is positive:
 - ◆ Obstetric Imaging Guidelines determine what is supported. 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 may be indicated depending on suspected cause of amenorrhea
 - ◆ Serum free and total testosterone and/or DHEAS levels may be indicated if there is evidence of hyperandrogenism
 - ◆ Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) if uterine or ovarian pathology is suspected or for other individual driven indications
- The results of test(s) above determine the next steps, which may include:
 - ◆ Suspicion for hormonally active adrenal tumor should be evaluated by criteria in **AB-16: Adrenal Cortical Lesions** in the Abdomen Imaging Guidelines.
 - ◆ MRI Brain (pituitary protocol) without and with contrast (CPT® 70553) can be performed if:
 - Estradiol is low with finding of inappropriately normal or low gonadotropins
 - Prolactin (PRL) level is elevated above normal
 - See **HD-19: Pituitary** in the Head Imaging Guidelines
- Hysterosalpingogram (CPT® 74740), sonohysterosalpingography (CPT® 76831), and/or hysteroscopy can be performed 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

PV-3.2: Primary Amenorrhea

- Initial evaluation may include pelvic ultrasound (CPT® 76856 or CPT® 76857). TV ultrasound (CPT® 76830) is appropriate in pediatric individuals who are sexually active or use a tampon and consent to the study.
- Hysterosalpingogram (CPT® 74740), sonohysterosalpingography (CPT® 76831), and/or hysteroscopy can be performed if ultrasound is indeterminate.
- If ultrasound defines a uterine or vaginal anomaly See **PV-14.1: Uterine Anomalies**
- Individuals with absent uterus or a foreshortened vagina should have karyotype evaluation. (See **PV-14.1: Uterine Anomalies**)
- MRI Brain (pituitary protocol) without and with contrast (CPT® 70553) can be performed if:
 - ◆ Estradiol is low with finding of inappropriately normal or low gonadotropins
 - ◆ Prolactin (PRL) level is elevated
 - ◆ See **HD-19: Pituitary** in the Head Imaging Guidelines

Practice Notes

In some cases of hypothyroidism, there may be an increase in the PRL level. Treatment of hypothyroidism can normalize prolactin levels.

Many medications are known to often result in hyperprolactinemia. More common offenders include antipsychotics (first generation and second generation e.g. Haloperidol and Risperidone, respectively), antidepressants (cyclic, SSRIs, e.g. Amitriptyline, Citalopram), anti-emetics and other gastrointestinal agents (such as Metoclopramide and Prochloroperazine), opioid analgesics (methadone, morphine), and antihypertensives (Verapamil, Methyldopa).

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PV-4: Adenomyosis

PV-4.1: Adenomyosis

- 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. Doppler ultrasound (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:
 - ◆ Inconclusive ultrasound and the individual has failed several months (3 months) of hormone suppression

Practice Notes

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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PV-5: Adnexal Mass/Ovarian Cysts

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PV-5.1: Suspected Adnexal Mass – Initial Evaluation

- 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 **AB-13: Abdominal Mass** 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.

Practice Notes

- 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).

PV-5.2: Simple Cysts

- 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. ➤ Further follow-up intervals may be adjusted on basis of degree of cyst change.

Simple Cyst Follow-Up		
Size	Pre-Menopausal	Post-Menopausal
>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. - Further follow-up intervals may be adjusted on basis of degree of cyst change

PV-5.3: Complex Adnexal Masses

- Ultrasound imaging should provide characteristics of the cyst/mass prior to consideration of advanced imaging.
- Complex cysts found on ultrasound may 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 Adenaxal 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
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) may be approved for Dermoids ≥10cm
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) 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: 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) may be performed one time:
 - ◆ 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 **ONC-21: Ovarian Cancer** in the Oncology Imaging Guidelines

Practice Notes**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 **PV-7: Pelvic Inflammatory Disease**), hydrosalpinx, dermoid, endometrioma, hemorrhagic cyst and pedunculated fibroids (See **PV-12: Leiomyomata/Uterine Fibroids**) 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.

PV-5.4: Screening for Ovarian Cancer/Suspected Ovary Cancer

➤ See **ONC-21: Ovarian Cancer** in the Oncology Imaging Guidelines

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PV-6: Endometriosis

PV-6.1: Endometriosis

- TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76856 or CPT® 76857) is the first line diagnostic exam for suspected endometriosis.
 - ◆ In most individuals, ultrasound followed by medical treatment or laparoscopy should be considered prior to advanced imaging.
 - ◆ Laparoscopy remains the definitive test for diagnosis and evaluation of endometriosis in most individuals.
- MRI Pelvis without contrast (CPT® 72195) or without and with contrast (CPT® 72197) is helpful for the following:
 - ◆ Rectal involvement, rectovaginal endometriosis, deeply infiltrative bladder endometriosis, and cul-de-sac obliteration. MRI has been shown to accurately detect rectovaginal endometriosis and cul-de-sac obliteration in the more than 90% of cases
 - ◆ To characterize complex adnexal masses as endometrioma if ultrasound equivocal.
 - ◆ To enable complete lesion mapping prior to surgical excision of known endometriosis that was diagnosed during a previous surgery.

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PV-7: Pelvic Inflammatory Disease (PID)

PV-7.1: Pelvic Inflammatory Disease

- 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).
- CT Abdomen and Pelvis with contrast (CPT® 74177) or CT Pelvis with contrast (CPT® 72193) if:
 - ◆ Ultrasound equivocal, or
 - ◆ Extensive abscess formation as determined by ultrasound and further imaging is needed for treatment planning

Practice Notes

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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PV-8: Polycystic Ovary Syndrome

PV-8.1: Polycystic Ovary Syndrome (PCOS)

- Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) may be performed based on history, exam, and laboratory findings suspicious for this disease.
- 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.
- CT Abdomen without contrast (CPT® 74150) is the initial study if elevated serum levels of androgens* are found and an adrenal etiology is suspected.
 - ◆ If initial CT Abdomen without contrast is indeterminate, CT Abdomen without and with contrast (CPT® 74170) with adrenal protocol is indicated or MRI Abdomen (contrast as requested), if CT contrast is contraindicated. See **AB-16.1: Adrenal Cortical Lesions** in the Abdominal Imaging Guidelines
 - ◆ *The adrenal gland preferentially secretes weak androgens such as DHEA and DHEAS. The ovary is the primary source of testosterone.

Practice Notes

- 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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PV-9: Initial Infertility Evaluation, Female

PV-9.1: Initial Infertility Evaluation, Female

- Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) may be approved for initial infertility workup.¹
- For suspected tubal factor:
 - ◆ 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)^{1,2,4,5}
 - ◆ US Color Doppler (CPT® 93975 or CPT® 93976)^{1,4,6,7,8}
- 3D US imaging (CPT® 76856 or CPT® 76857 and/or CPT® 76830, add-on CPT® 76376 or CPT® 76377) may be approved prior to initiation of assisted reproductive technology (ART)³

Note: Injection of contrast through a catheter (CPT® 58340) is not currently prior authorized by eviCore healthcare for any health plan.

Practice Notes

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

These guidelines are not intended for fertility follow-up and management.

If infertility is a covered service, the specialist may, over the course of several menstrual cycles, request multiple ultrasounds to follow follicular maturation and monitor endometrial thickness.

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

PV-10.1: Intrauterine Device	30
PV-10.2: Tubal Occlusion Device	30

PV-10.1: Intrauterine Device

- 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 complication at the time or immediately following IUD insertion:
 - Abnormal IUD position
 - Uterine perforation
 - Severe pain
 - Excessive bleeding
 - ◆ Failure to improve with conservative treatment (7 days) such as antibiotics for cramping, light bleeding, and/or low grade fever following IUD placement
 - ◆ NOT as routine imaging to evaluate position prior to, immediately after and, for example, 6 weeks after insertion
- “Lost” IUD (inability to feel or see 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 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 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 the obstetrical CPT codes may be supported. See **OB-3.1: Locate an Intrauterine Device (IUD)** in the Obstetrical Ultrasound Imaging Guidelines

PV-10.2: Tubal Occlusion Device

- TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76856 or CPT® 76857) if:
 - ◆ Suspected complication of tubal occlusion device:
 - Abnormal tubal occlusion device position
 - Uterine perforation
 - Severe pain
 - Excessive bleeding
 - ◆ Hysterosalpingogram (CPT® 74740) is generally done 3 months after placement of device to confirm tubal occlusion.
 - A follow up hysterosalpingogram (CPT® 74740) can be considered for suspected complications if ultrasound is non-diagnostic or equivocal

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PV-11: Pelvic Pain/Dyspareunia, Female

PV-11.1: Pelvic Pain/Dyspareunia, Female

- Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) is the initial imaging for unexplained pelvic pain and/or dyspareunia:
 - ◆ Add Duplex Doppler (CPT® 93975 or CPT® 93976) if there is a suspicion of ovarian torsion on the initial ultrasound.
 - ◆ For chronic pelvic pain (pelvic pain for 6 months or greater), add Duplex Doppler (CPT® 93975 or CPT® 93976).
 - ◆ If premenopausal, pregnancy test should be performed.
 - ◆ If urethral diverticulum is suspected – See **PV-13.2: Urethral Diverticula**
 - ◆ If endometriosis is suspected – See **PV-6.1: Endometriosis**
- If initial ultrasound is normal, further evaluation may include urological work-up, gastroenterology work-up, laparoscopic evaluation(s) and/or screening for psychosocial factors (such as depression, anxiety).
- If the initial ultrasound is equivocal for unexplained chronic pelvic pain and/or above evaluations are non-diagnostic then the following can be considered:
 - ◆ CT Pelvis with contrast (CPT® 72193) for unexplained chronic pelvic pain.
- If the initial ultrasound is equivocal for unexplained chronic pelvic pain and if pelvic congestion is suspected:
 - ◆ MRI Pelvis without contrast or with and without contrast (CPT® 72195 or CPT® 72197) or MRV Pelvis (CPT® 72198), or CTV Pelvis (CPT® 72191) for pelvic congestion.
 - MRV Abdomen (CPT® 74185) or CTV Abdomen (CPT® 74175) if vascular intervention is planned.
 - CTV Abdomen and Pelvis (CPT® 74174) is appropriate if CTV Pelvis has not been performed
- CTA Pelvis (CPT® 72191) can be considered if pelvic AVM is suspected, and if one of the following is present:
 - ◆ Pulsatile pelvic mass
 - ◆ Incidental finding on prior imaging including ultrasound
- Pelvic Pain/Hip Pain - Rule Out Piriformis Syndrome
 - ◆ See **PN-2: Focal Neuropathy** in the Peripheral Nerve Disorders Imaging Guidelines
 - ◆ See **MS-24: Hip** in the Musculoskeletal Imaging Guidelines
- 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) and/or TV ultrasound (CPT® 76830).
 - CT Pelvis with contrast (CPT® 72193) may be indicated 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

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

Practice Notes

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.

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PV-12: Leiomyomata/Uterine Fibroids

PV-12.1: Leiomyomata

Leiomyomata 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 leiomyomata with symptoms of pelvic pain, suspected ureteral obstruction secondary to inability to void urine, pelvic pressure and/or abnormal uterine bleeding. Findings on exam should be consistent with leiomyoma and should describe the size of the uterus.
 - ◆ Pre-operative prior to myomectomy
 - ◆ Recurrent symptoms such as abnormal bleeding, pain, or pelvic pressure
 - ◆ 3-D Rendering (CPT® 76377 or CPT® 76376) may be an add-on 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.
 - ◆ If ultrasound is equivocal for intracavitary lesion, Duplex (Doppler) scan (CPT® 93975 complete; CPT® 93976 limited) may be approved as an add-on to TV ultrasound (CPT® 76830).
- 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 myomas in an enlarged uterus with multiple myomas 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 fibroid 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 arterial 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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PV-13: Periurethral Cysts and Urethral Diverticula

PV-13.1: Periurethral cysts, Skene duct cyst and Gartner's duct cyst	37
PV-13.2: Urethral Diverticula	37

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

- 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 if ordered by operating surgeon or any provider in consultation with the operating surgeon and ultrasound equivocal

PV-13.2: Urethral Diverticula

- 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 if ordered by operating surgeon or any provider in consultation with the operating surgeon and ultrasound equivocal for urethral abnormalities

Practice Notes

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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PV-14: Uterine Anomalies

PV-14.1: Uterine Anomalies

- 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. Advanced abdominal imaging is not supported in the absence of renal anomalies visualized 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 defines a complex anomaly or is not definitive for a complex anomaly, or
 - ◆ Requested for surgical planning

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PV-15: Fetal MRI

PV-15.1: Fetal MRI	40
PV-15.2: Placenta Accreta/Placenta Accreta Spectrum/ Placenta Percreta	41

PV-15.1: Fetal MRI

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] may be considered for assessment of known or suspected fetal abnormalities for surgical planning, and/or if an ultrasound is equivocal **and** additional information is needed for counseling purposes, or for delivery planning
- Though rarely needed, repeat fetal MRI may be indicated later in pregnancy for delivery or further 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)
 - 4Complex 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.

PV-15.2: Placenta Accreta/Placenta Accreta Spectrum/ Placenta Percreta

- 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
 - ◆ 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.
 - ◆ 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.

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

PV-16.1: Molar Pregnancy and GTN

- 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

Practice Notes

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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PV-17: Impotence/Erectile Dysfunction

PV-17.1: Impotence/Erectile Dysfunction

- Imaging depends on the suspected disease:
 - ◆ Penile Doppler ultrasound (CPT® 93980) if erectile dysfunction suspected²
 - ◆ CTA Pelvis with contrast (CPT® 72191) may be indicated 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 **HD-19: Pituitary** in the Head Imaging Guidelines
- Functional MRI or PET studies are considered investigational for this indication.

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PV-18: Penis–Soft Tissue Mass

PV-18.1: Penis-Soft Tissue Mass

- 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 **ONC-24.6: Cancers of External Genitalia – Initial Work-up/Staging** 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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PV-19: Male Pelvic Disorders

PV-19.1: Male Pelvic Disorders

- Prostate Disorders
 - ◆ Suspected Benign Prostatic Hypertrophy with obstructive voiding symptoms who have failed medication treatment 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) may be performed 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.
- 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
- 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
- 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) may be indicated if ultrasound is equivocal for complicated interstitial cystitis/bladder pain syndrome (when ordered by specialist or any provider in consultation with the specialist)

Practice Notes

- 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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PV-20: Scrotal Pathology

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PV-20.1: Scrotal Pathology

- 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}
 - ◆ Nuclear testicular imaging (CPT® 78761) is indicated for evaluation of scrotal pain when testicular torsion is suspected and recent Doppler ultrasonography is inconclusive or unavailable
- 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.
- 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

Practice Notes

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

PV-20.2: Paratesticular and spermatic cord masses

- 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.

PV-20.3: Testicular Microlithiasis

- 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
 - ◆ Malescent
 - ◆ Orchidopexy
 - ◆ Testicular atrophy
- For Personal history of germ cell tumor See **ONC-20: Testicular, Ovarian and Extragonadal Germ Cell Tumors** in the Oncology Imaging Guidelines

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PV-21: Fistula in Ano and Perirectal Abscess

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PV-21.2: Perirectal Abscess	52

PV-21.1: Fistula in Ano

- 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 or endoscopic ultrasound cannot be performed.

PV-21.2: Perirectal Abscess

- 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 in Crohn's Disease, See **AB-23.3: Perirectal/Perianal Disease** in the Abdomen Imaging Guidelines.

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PV-22: Urinary Incontinence/Pelvic Prolapse/Fecal Incontinence

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PV-22.3: Pelvic Prolapse	55
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PV-22.1: Urinary Incontinence – Initial Imaging

- 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

Practice Note

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.

PV-22.2: Urinary Incontinence – Further Imaging

- CT Abdomen and/or 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
- MRI may be indicated for evaluation of the brain, spine, or other regions of the nervous system in neurogenic urinary incontinence.

Practice Notes

- 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

PV-22.3: Pelvic Prolapse

- 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) may be indicated 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
- Sacral osteomyelitis may be a complication of sacrocolpopexy. Back pain in women after this procedure should prompt evaluation with MRI Pelvis with and without contrast (CPT® 72197) and referral to a specialist.

PV-22.4: Fecal Incontinence

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

Practice Notes

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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PV-23: Patent Urachus

PV-23.1: Patent Urachus

- 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) may be performed 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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PV-24: Bladder Mass

PV-24.1: Bladder Mass

- 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

Practice Notes

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

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PV-25: Ureteral and/or Bladder Trauma or Injury

PV-25.1: Ureteral and/or Bladder Trauma or Injury

- 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 **AB-10.1: Blunt Abdominal Trauma** 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

Practice Notes

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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