



CLINICAL GUIDELINES

Pelvis Imaging Policy

Version 1.0.2019

Effective February 15, 2019



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

PV-1.1: General Guidelines - Overview

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PV-1.1: General Guidelines - Overview

- 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).
 - ◆ 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 (telephone call, electronic mail or messaging) by an established patient can substitute for a face-to-face clinical evaluation.
- Abdominal imaging begins at the diaphragm and extends to the umbilicus or iliac crest. Pelvic imaging begins at the umbilicus and extends to the pubis.
- 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 ultrasound (TV) (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 patients or non-sexually active females.
- 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, penis and perineum—CPT® 76857
- Groin-- CPT® 76882

Scrotal Ultrasound

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

Other Ultrasound

- CPT® 93975 Duplex scan (complete) scan 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/CPT® 76377) See **Preface-4.1: 3D Rendering**
 - ◆ In general, eviCore maintains that CPT® 76376 (3D rendering not requiring image post-processing on an independent workstation) should not be separately reimbursed since this function is built into the imaging software and generally takes less than 15 minutes to perform. CPT® 76377 (3D rendering requiring image post-processing on an independent work station) can be considered in the following clinical scenarios:
 - Uterine intra-cavitary lesion when initial US is equivocal (See **PV-2.1: Abnormal Uterine Bleeding (AUB)** and **PV-12.1: Leiomyomata**)
 - Hydrosalpinges or peritoneal cysts when initial US is equivocal (See **PV-5.2: Complex Adnexal Masses – Pre-Menopausal**, **PV-5.3: Complex Adnexal Masses – Post-Menopausal**)
 - Lost IUD (inability to feel or see IUD string) with initial US (See **PV-10.1: Intrauterine Device**)
 - Uterine anomalies with initial US (See **PV-14.1: Uterine Anomalies**)
 - ◆ Only CPT® 76377 (done on an independent work station) may be approved when specific guideline criteria is met
 - ◆ Requests for CPT® 76376 must go to MD review

CT

- CT Pelvis with contrast is a possible modality unless there is a contrast allergy or CT without contrast to look for a calculus in the distal ureter or bladder.
 - ◆ 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 patients 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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PV-2: Abnormal Uterine Bleeding

PV-2.1: Abnormal Uterine Bleeding (AUB)

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PV-2.1: Abnormal Uterine Bleeding (AUB)

- Initial evaluation includes any of the following:
 - ◆ Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or Transvaginal ultrasound (CPT® 76830), saline infusion sonohysterography (CPT® 76831), hysteroscopy, D&C and/or endometrial biopsy.
- If US is equivocal for intracavitary lesion, 3-D Rendering (CPT® 76377) may be approved as an add-on. (In general, eviCore maintains that CPT® 76376 (3D rendering not requiring image post-processing on an independent workstation) should not be separately reimbursed since this function is built into the imaging software and generally takes less than 15 minutes to perform.)
- If US is equivocal for intracavitary lesion, Duplex (Doppler) scan (CPT® 93975 complete; CPT® 93976 limited) may be approved as an add-on to TV US (CPT® 76830).
- 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 TVUS for further evaluation.

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PV-3: Amenorrhea

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PV-3.2: Amenorrhea - Delayed Puberty	12

PV-3.1: Amenorrhea

- If a pregnancy test is negative:
 - ◆ Ultrasound, Pelvis (CPT® 76856 or CPT® 76857) and/or TV (CPT® 76830), hysterosalpingogram (CPT® 74740), sonohysterosalpingography (CPT® 76831), and/or hysteroscopy.

The results of test(s) above determine the next steps, which may include:

- If ultrasound is indeterminate or equivocal for Asherman's Syndrome, Polycystic Ovary Syndrome, or Androgen Secreting Ovarian Tumor, then MRI Pelvis without contrast (CPT® 72195) or without and with contrast (CPT® 72197).
- Hormonally active adrenal tumor suspicion should be evaluated by criteria in **AB-16: Adrenal Cortical Lesions** in the Abdomen Imaging Guidelines.
- Patients with absent uterus or a foreshortened vagina should have karyotype evaluation. (See **PV-14.1: Uterine Anomalies**)
- MRI head (pituitary protocol) without and with contrast (CPT® 70553) if:
 - ◆ Normal or low FSH and LH levels and evidence of increased intracranial pressure (e.g. headache, vomiting, vision changes).
 - ◆ Prolactin (PRL) level is elevated above normal range in the absence of untreated hypothyroidism and/or drug-induced causes of elevated prolactin.
- See **HD-19: Pituitary** in the Head Imaging Guidelines.

PV-3.2: Amenorrhea - Delayed Puberty

Delayed puberty can be further evaluated with thyroid function tests, LH, FSH and prolactin.

- Ultrasound, Pelvis (CPT® 76856 or CPT® 76857) and/or TV (CPT® 76830), hysterosalpingogram (CPT® 74740), sonohysterosalpingography (CPT® 76831), and/or hysteroscopy.
- MRI head (pituitary protocol) without and with contrast (CPT® 70553) if:
 - ◆ Normal or low FSH and LH levels and evidence of increased intracranial pressure (e.g. headache, vomiting, vision changes).
 - ◆ Prolactin (PRL) level is elevated above normal range in the absence of untreated hypothyroidism and/or drug-induced causes of elevated prolactin.
- 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 restores PRL to normal, therefore, pituitary MRI should not be performed unless elevated PRL level persists after euthyroid status has been achieved.

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).

Normal uterus and normal puberty can be further be evaluated with an endocrine work-up (TSH, LH, FSH, and prolactin) and pregnancy test.

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PV-4: Adenomyosis

PV-4.1: Adenomyosis

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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 (CPT® 72197) is considered a second-line imaging option after transvaginal ultrasound if:
 - ◆ Inconclusive US and the patient has failed several months (3 months) of hormone suppression; or
 - ◆ Enlarged uterus or with coexisting fibroids and further delineation would affect patient management.

Adenomyosis – 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.

Reference

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PV-5: Adnexal Mass/Ovarian Cysts

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PV-5.1: Suspected Adnexal Mass – Initial Evaluation in All Women

- A potential mass is found on exam and/or other imaging
- Transvaginal (TV) ultrasound imaging (CPT® 76830) is the initial study of choice.^{1,2}
 - ◆ 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) may be useful to evaluate the vascular characteristics of adnexal masses.
- If ultrasound does not identify the origin of the pelvic mass (adnexal, uterine, or other in etiology),¹ MRI Pelvis without contrast (CPT® 72195), OR without and with contrast (CPT® 72197; CPT® 72195 if pregnant).
 - ◆ If the mass is unrelated to female pelvic anatomy, See **AB-13: Abdominal Mass**
- Transvaginal ultrasound is the recommended modality for imaging; no alternative modality has demonstrated sufficient superiority to justify routine use

If a Complex Adnexal Mass is identified in a pre-menopausal woman, See

PV-5.2: Complex Adnexal Mass – Pre-Menopause

If a Complex Adnexal Mass is identified in a post-menopausal woman, See

PV-5.3: Complex Adnexal Mass – Post-Menopause

Practice Notes

“Indeterminate” is commonly used by radiologists to describe a complex adnexal mass when they should be providing greater descriptive to the complex mass. A complex mass should describe whether or not there are septations, mural projections, papillary excrescences, and comment of vascularity, instead of just describing the mass as “indeterminate”.

“Equivocal” is another commonly used term. Further information should indicate what the mass or lesion is equivocal for, for instance, ectopic pregnancy, functional cysts, tuboovarian abscess, hydrosalpinx, dermoid, endometrioma, hemorrhagic cyst or pedunculated fibroids.

PV-5.2: Complex Adnexal Masses – Pre-Menopausal

A complex adnexal mass is any mass that's is not considered to be a simple cyst. Description of a complex mass should include the presence or absence of septations, mural projections and/or papillary excrescences, and a comment on its vascularity.

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 patients often require immediate interventions (antibiotics, surgery, and/or expectant management).

Ultrasound characteristics usually suggest the diagnosis (ectopic pregnancy, functional cysts, tuboovarian 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.

- Hemorrhagic cyst:
 - ◆ If initial imaging confirms hemorrhagic cyst, follow up with pelvic ultrasound (CPT® 76856 or CPT® 76857 and/or [transvaginal] CPT® 76830) in six 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 US (CPT® 76830).
 - If follow-up imaging confirms a hemorrhagic cyst that has not completely resolved, a repeat ultrasound (CPT® 76856 or CPT® 76857 and/or CPT® 76830 [transvaginal]) can be performed in 6 months (sooner if signs or symptoms persist or if new symptoms occur).
- Endometriomas
 - ◆ If initial imaging confirms an Endometrioma, follow-up ultrasound (CPT® 76856 or CPT® 76857 and/or CPT® 76830 [transvaginal]) can be performed at 6 to 12 weeks then every 6 months if not surgically resected; duplex (Doppler) scan (CPT® 93975 complete; CPT® 93976 limited) may be approved as an add-on to TV US (CPT® 76830).
 - ◆ If ultrasound equivocal for Endometriomas, Pelvic MRI without and with contrast (CPT® 72197)
- Dermoids
 - ◆ If initial imaging confirms a dermoid, follow-up ultrasound (CPT® 76856 or CPT® 76857 and/or CPT® 76830 [transvaginal]) can be performed at 6 to 12 months; duplex (Doppler) scan (CPT® 93975 complete; CPT® 93976 limited) may be approved as an add-on to TV US (CPT® 76830).
 - If surgical resection is not performed, then follow-up pelvic ultrasound (CPT® 76856 or CPT® 76857 and/or CPT® 76830 [transvaginal]) can be obtained every 6 to 12 months.
 - ◆ If initial ultrasound imaging (CPT® 76857 or CPT® 76856 and/or transvaginal CPT® 76830) equivocal for Dermoids, the diagnosis can be confirmed by CT Pelvis (contrast as requested) or MRI Pelvis without contrast (CPT® 72195) or MRI Pelvis without and with contrast (CPT® 72197).
 - If surgical resection is not performed, then follow-up pelvic ultrasound (CPT® 76856 or CPT® 76857 and/or CPT® 76830 [transvaginal]) can be obtained every 6 to 12 months.
- Hydrosalpinges (Hydrosalpinx) or Peritoneal cysts
 - ◆ If initial imaging confirms hydrosalpinx or peritoneal cysts, advanced imaging is rarely indicated in these clinical scenarios. Send for physician review.
 - ◆ If initial ultrasound imaging (CPT® 76857 or CPT® 76856 and/or transvaginal CPT® 76830) equivocal for Hydrosalpinges, one repeat US is indicated in 6

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 US (CPT® 76830). 3-D Rendering (CPT® 76377) may be approved as an add-on. (In general, eviCore maintains that CPT® 76376 (3D rendering not requiring image post-processing on an independent workstation) should not be separately reimbursed since this function is built into the imaging software and generally takes less than 15 minutes to perform.)

- Advanced imaging may be considered for elevated tumor makers if an ultrasound equivocal and/or ovarian malignancy is suspected. See **ONC- 21.2: Suspected/Diagnosis**
 - ◆ CT Abdomen and Pelvis with contrast (CPT® 74177) as a pre-operative study to evaluate for metastatic disease when cancer is known or suspected.
 - ◆ CT Abdomen and Pelvis with contrast (CPT® 74177) can detect omental metastases, peritoneal implants, pelvic and periaortic lymph node enlargement.
 - ◆ CT Abdomen and Pelvis without and with contrast (CPT® 74178) can be considered for suspected hepatic metastases and obstructive uropathy.
- Advanced imaging may be indicated for an ovarian mass suspicious for metastatic disease (e.g. from breast, uterine, colorectal or gastric cancer) and should be evaluated based on the appropriate Oncology Imaging guideline.

Practice Notes

- ◆ Germ cell tumors are more common in young women which can be confirmed by beta hCG, AFP, and LDH
- ◆ CA-125 tumor marker can confirm for other malignancy suspicion.

PV-5.3: Complex Adnexal Masses – Post-Menopausal

- A complex adnexal mass is any mass that's is not considered to be a simple cyst. Description of complex mass should include presence or absence of septations, mural projections and/or papillary excrescences, and a comment on its vascularity.
- Dermoids
 - ◆ If initial imaging confirms a dermoid, follow-up ultrasound (CPT® 76856 or CPT® 76857 and/or CPT® 76830 [transvaginal]) can be performed at 6 to 12 months; duplex (Doppler) scan (CPT® 93975 complete; CPT® 93976 limited) may be approved as an add-on to TV US (CPT® 76830).
 - If surgical resection is not performed, then follow-up pelvic ultrasound (CPT® 76856 or CPT® 76857 and/or CPT® 76830 [transvaginal]) can be obtained every 6 to 12 months.
 - ◆ If initial ultrasound imaging (CPT® 76857 or CPT® 76856 and/or transvaginal CPT® 76830) equivocal for dermoids, the diagnosis can be confirmed by CT Pelvis (contrast as requested) or MRI Pelvis without contrast (CPT® 72195) or MRI Pelvis without and with contrast (CPT® 72197).
 - If surgical resection is not performed, then follow-up pelvic ultrasound (CPT® 76856 or CPT® 76857 and/or CPT® 76830 [transvaginal]) can be obtained every 6 to 12 months

- Hydrosalpinges (Hydrosalpinx) or Peritoneal cysts
 - ◆ If initial imaging confirms hydrosalpinx or peritoneal cysts, advanced imaging is rarely indicated in these clinical scenarios. Send for physician review.
 - ◆ If initial ultrasound imaging (CPT® 76857 or CPT® 76856 and/or transvaginal CPT® 76830) equivocal for Hydrosalpinges, one repeat US is indicated in 6 weeks to evaluate for resolution. Duplex (Doppler) scan (CPT® 93975 complete; CPT® 93976 limited) may be approved as an add-on to TV US (CPT® 76830). 3-D Rendering (CPT® 76377) may be approved as an add-on. (In general, eviCore maintains that CPT® 76376 (3D rendering not requiring image post-processing on an independent workstation) should not be separately reimbursed since this function is built into the imaging software and generally takes less than 15 minutes to perform.)
- For post-menopausal women, most pelvic complex cysts or solid masses should be evaluated for surgical intervention and have tumor markers (CA-125) measured.
- 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 guideline.
- If ultrasound is equivocal, advanced imaging may be appropriate for high risk treatment planning. Send for Medical Director Review.
- 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.
- Advanced imaging may be considered for elevated tumor makers if an ultrasound is equivocal and/or ovarian malignancy is suspected. See **ONC-21.2: Suspected/Diagnosis**
 - ◆ CT Abdomen and Pelvis with contrast (CPT® 74177) as a pre-operative study to evaluate for metastatic disease when cancer is known or suspected.
 - ◆ CT Abdomen and Pelvis (CPT® 74177) can detect omental metastases, peritoneal implants, pelvic and periaortic lymph node enlargement.
 - ◆ CT Abdomen and Pelvis without and with contrast (CPT® 74178) can be considered for suspected hepatic metastases and obstructive uropathy.

PV-5.4: Screening for Ovarian Cancer

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

PV-5.5: Simple Cysts

- For simple or thin walled cystic mass, follicular cyst (ovarian), tubular cystic mass (fallopian tube) on initial TV ultrasound (CPT® 76830):
 - ◆ Repeat TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856)
 - According to the below schedule if ≤ 10 cm

- CA-125 in all postmenopausal patients
- Cysts >10cm have not been studied and the current recommendation is to consider surgical intervention.
- Advanced imaging may be appropriate for preoperative planning if requested by the operating surgeon or for elevated tumor marker(s). Requests will be sent to Medical Director Review.

Simple Cyst Follow-Up

Size	Pre-Menopausal	Post-Menopausal
≤ 5 cm	N/A	TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856) at 6 months
> 5 cm to 7 cm	TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856) annually	TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856) or MRI Pelvis without and with contrast (CPT® 72197) for follow-up as clinically indicated; follow-up intervals may be adjusted on basis of degree of cyst change
> 7 cm to 10 cm	TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856) every 6 months or MRI Pelvis without and with contrast (CPT® 72197) one time.	MRI Pelvis without and with contrast (CPT® 72197) one time.

Practice Notes

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
 - ◆ Obtain CA-125 in all post-menopausal patients with simple cyst.
 - ◆ Consider tumor markers patients with an abnormal US 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 and Complex Adnexal Cysts

Simple cysts are smooth walled and clear without debris. Simple cysts up to 10 cm in diameter as measured by ultrasound are almost universally benign and may safely be followed with ultrasound, without intervention, even in postmenopausal women and pediatric patients with normal tumor markers.

Complex cysts can have solid areas or excrescences, and/or debris in them, greater than 3 mm irregular septations, mural nodules with Doppler-detected blood flow, and/or free abdominal/pelvic fluid.

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PV-6: Endometriosis

PV-6.1: Endometriosis

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PV-6.1: Endometriosis

- TV (CPT® 76830) and/or Pelvic (CPT® 76856 or CPT® 76857) US is then the first line diagnostic exam for pain or abnormality on exam.
 - ◆ In most patients, US 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 patients.
- MRI Pelvis without contrast (CPT® 72195) or without and with (CPT® 72197) is helpful when:
 - ◆ 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.
 - ◆ MRI can also 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

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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) when:
 - ◆ US equivocal, or
 - ◆ Extensive abscess formation as determined by ultrasound

Practice Notes

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

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PV-8: Polycystic Ovary Syndrome

PV-8.1: Polycystic Ovary Syndrome

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PV-8.1: Polycystic Ovary Syndrome

- Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV US (CPT® 76830) may be performed based on history, exam, and laboratory findings suspicious for this disease.
- If elevated serum levels of androgens are found and an adrenal etiology is suspected, the initial study is CT Abdomen without contrast (CPT® 74150). If this initial CT is equivocal, non-diagnostic, or concerning for malignancy, CT Abdomen with (bolus arterial phase), contrast (CPT® 74160) can be considered. See **AB-16: Adrenal Cortical Lesions**
 - ◆ Serum levels of androgens. Free testosterone level is thought to be the best measure.

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.

Ovaries are often enlarged and contain numerous small cysts located along the outer edge of each ovary. Signs and symptoms may include:

- ◆ Anovulation resulting in infrequent or prolonged menstrual periods.
- ◆ Excessive amounts or effects of androgenic (masculinizing) hormones (e.g. excess hair growth).
- ◆ Acne
- ◆ Obesity

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PV-9: Infertility Evaluation, Female**PV-9.1: Infertility Evaluation, Female****30**

PV-9.1: Infertility Evaluation, Female

- Initial work-up of infertility in female:
 - ◆ Pelvic ultrasound (CPT® 76856 or CPT® 76857) and transvaginal ultrasound (CPT® 76830). If indicated, color Doppler (CPT® 93975/CPT® 93976) and/or 3D imaging (CPT® 76377).
 - ◆ Hysterosalpingography (HSG) (CPT® 74740).
 - Injection of contrast through a catheter (CPT® 58340) is not currently prior authorized by eviCore healthcare for any health plan.
 - ◆ Sonohysterosalpingography (CPT® 76831)
 - Injection of contrast through a catheter (CPT® 58340) is not currently prior authorized by eviCore healthcare for any health plan.

Practice Notes

Some payers 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	32
PV-10.2: Tubal Occlusion Device	32

PV-10.1: Intrauterine Device

- Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV (CPT® 76830) US 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.
- TV US (CPT® 76830); 3-D Rendering (CPT® 76377) may be added for “Lost” IUD (inability to feel or see IUD string). (In general, eviCore maintains that CPT® 76376 (3D rendering not requiring image post-processing on an independent workstation) should not be separately reimbursed since this function is built into the imaging software and generally takes less than 15 minutes to perform.)
 - ◆ If TV US is negative or non-diagnostic, pelvic US (CPT® 76856 or CPT® 76857):
 - If pelvic US is negative or non-diagnostic, plain x-ray should be performed if pregnancy test is negative.
 - Thereafter, 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: See **OB-14.1: Locate an Intrauterine Device**
 - ◆ Ultrasound can be performed to locate an intrauterine device (IUD) (CPT® 76801 if a complete ultrasound has not yet been performed, CPT® 76815 or CPT® 76816 if a complete anatomic ultrasound was done previously, and/or CPT® 76817 for a transvaginal ultrasound).

PV-10.2: Tubal Occlusion Device

- TV ultrasound (CPT® 76830) if:
 - ◆ Suspected complication of tubal occlusion device:
 - Abnormal tubal occlusion device position
 - Uterine perforation
 - Severe pain
 - Excessive bleeding
- TV ultrasound (CPT® 76830) is not typically indicated for routine follow up after insertion of tubal occlusion device

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PV-11: Pelvic Pain/Dyspareunia, Female**PV-11.1: Pelvic Pain/Dyspareunia, Female****35**

PV-11.1: Pelvic Pain/Dyspareunia, Female

- For unexplained pelvic pain and/or dyspareunia, the initial imaging test should be Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV Ultrasound (CPT® 76830):
 - ◆ Add Duplex (Doppler) scan (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 initial ultrasound is normal, consider urological work-up, gastroenterology work-up or laparoscopic evaluation(s) in evaluation of pelvic pain.
- If the initial ultrasound is equivocal for unexplained chronic pelvic pain, 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 Pelvis MRV (CPT® 72198), or CTV Pelvis (CPT® 72191) for pelvic congestion.
 - MRV Abdomen (CPT® 74185) or CTV Abdomen (CPT® 74175) if vascular intervention is planned.
 - If CTV Pelvis has not been performed, CTV Abdomen and Pelvis CPT® 74174 is appropriate
- If pelvic AVM is suspected, and if one of the following is present, then CTA Pelvis (CPT® 72191) can be considered.
 - ◆ 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 PND Imaging Guidelines and
 - ◆ See **MS-24: Hip** 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), and measurement of post void residual urine by bladder catheterization or by ultrasound (CPT® 76856 or CPT® 76857 or CPT® 76830 [female]).
 - ◆ CT Pelvis with contrast (CPT® 72193) and/or CT Abdomen and Pelvis with contrast (CPT® 74177) may be indicated if ultrasound is equivocal for complicated interstitial cystitis/bladder pain syndrome (when ordered by Specialist) or uncomplicated when ultrasound is equivocal or abnormal.
- 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 US (CPT® 76822), 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****38**

PV-12.1: Leiomyomata

Leiomyomata are also known as “fibroids.”

- Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV US (CPT® 76830) can be performed for the following:
 - ◆ Suspected leiomyomata
 - ◆ Pre-operative prior to myomectomy
 - ◆ Persistent or recurrent symptoms such as abnormal bleeding, pain, or pelvic pressure
 - ◆ 3-D Rendering (CPT® 76377) may be added if ultrasound is equivocal and intracavitary lesion is suspected, or if arterial embolization is being considered, or for surgical planning for myometctomy (In general, eviCore maintains that CPT® 76376 (3D rendering not requiring image post-processing on an independent workstation) should not be separately reimbursed since this function is built into the imaging software and generally takes less than 15 minutes to perform.)
 - ◆ If US is equivocal for intracavitary lesion, Duplex (Doppler) scan (CPT® 93975 complete; CPT® 93976 limited) may be approved as an add-on to TV US (CPT® 76830).
- 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 and/or precise myoma mapping is of clinical importance (for complex surgical planning)
 - ◆ Equivocal sonohysterography or panoramic hysteroscopy with suspected submucous leiomyoma and imaging is needed for surgical planning
 - ◆ equivocal US prior to myomectomy
 - ◆ Leiomyoma necrosis is suspected
 - ◆ Arterial embolization is being considered
 - If MRI is equivocal, MRA Pelvis (CPT® 72198) or CTA Pelvis (CPT® 72191) can be considered if requested by the interventional radiologist planning the arterial embolization
- There is no evidence to support interval MRI after embolization unless persistent or recurrent symptoms

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PV-13: Periurethral Cysts and Urethral Diverticula

PV-13.1: Periurethral cysts, Skene duct cyst and Gartner's duct cyst	41
PV-13.2 Urethral Diverticula	41

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

- Initial evaluation includes any of the following:
 - ◆ Ultrasound (CPT® 76856 or CPT® 76857) and/or transvaginal (CPT® 76830)

PV-13.2: Urethral Diverticula

- Initial evaluation includes pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or transvaginal ultrasound (CPT® 76830)
- Urethrography, or CT Urethrography can be performed to evaluate any urethral abnormalities
- If ultrasound equivocal for urethral abnormalities, MRI Pelvis without and with contrast (CPT® 72197) can be performed if ordered by operating surgeon

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

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PV-14.1: Uterine Anomalies

- Initial evaluation includes pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830). 3-D Rendering (CPT® 76377) may be approved as an add-on if uterine anomaly is suspected on ultrasound. (In general, eviCore maintains that CPT® 76376 (3D rendering not requiring image post-processing on an independent workstation) should not be separately reimbursed since this function is built into the imaging software and generally takes less than 15 minutes to perform.)
- Retroperitoneal ultrasound (CPT® 76770 or CPT® 76775) is indicated to evaluate for coexisting renal anomalies.
- Pelvis MRI 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	45
PV-15.2: Placenta Accreta/Placenta Percreta	47

PV-15.1: Fetal MRI

- See **OB-24.13: Fetal MRI**
- Fetal MRI (CPT® 74712; CPT® 74713 for each additional gestation)
 - ◆ Do not report CPT® 74712 and CPT® 74713 in conjunction with CPT® 72195, CPT® 72196, CPT® 72197

Indications for Fetal MRI

- Fetal MRI may be considered for surgical planning (re: fetal anomalies), and/or if an ultrasound is equivocal **and** additional information is needed for counseling purposes, for indications including the following:
 - ◆ Brain
 - Congenital anomalies
 - ventriculomegaly
 - corpus callosal dysgenesis
 - holoprosencephaly
 - posterior fossa anomalies
 - malformations of cerebral cortical development
 - Screening fetuses with a family risk for brain anomalies
 - tuberous sclerosis
 - corpus callosal dysgenesis
 - malformations of cerebral cortical development
 - Vascular abnormalities
 - vascular malformations
 - hydranencephaly
 - infarctions
 - monochorionic twin pregnancy complications
 - ◆ Spine
 - Congenital anomalies
 - neural tube defects
 - sacrococcygeal teratomas
 - caudal regression/sacral agenesis
 - sirenomelia
 - vertebral anomalies
 - ◆ Skull, face and neck
 - Masses of the face and neck
 - venolymphatic 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
- Volumetric assessment of lung
 - cases at risk for pulmonary hypoplasia secondary to oligohydramnios, chest mass, or skeletal dysplasias
- ◆ Abdomen, retroperitoneal and pelvis
 - Mass
 - abdominal–pelvic cyst
 - tumors (e.g. hemangiomas, neuroblastomas, sacrococcygeal teratomas, and suprarenal or renal masses)
 - complex genitourinary anomalies (e.g. cloaca)
 - renal anomalies in cases of severe oligohydramnios
 - bowel anomalies such as megacystis microcolon
- ◆ Complications of monochorionic twins
 - delineation of vascular anatomy prior to laser treatment of twins
 - assessment of morbidity after death of a monochorionic co-twin
 - improved delineation of anatomy in conjoined twins
- ◆ Fetal surgery assessment
 - meningocele
 - sacrococcygeal teratomas
 - processes obstructing the airway (e.g. neck mass or congenital high airway obstruction)
 - complications of monochorionic twins needing surgery
 - chest masses

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PV-15.2: Placenta Accreta/Placenta Percreta

- If the ultrasound is inconclusive or equivocal, send to MD review. MD can approve MRI Pelvis without contrast (CPT® 72195).
- If only placenta or maternal pelvis is imaged without fetal imaging, use MRI Pelvis (CPT® 72195).

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

PV-16.1: Molar Pregnancy and GTN

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PV-16.1: Molar Pregnancy and GTN

- Molar pregnancy - patients should undergo chest x-ray post-evacuation.
- Patients 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 with contrast (CPT® 74177)
 - ◆ 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

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PV-17.1: Impotence/Erectile Dysfunction

- Imaging depends on the suspected disease:
 - ◆ If erectile dysfunction suspected, penile Doppler ultrasound (CPT® 93980) can be performed²
 - ◆ If large vessel vascular insufficiency is suspected following ultrasound, then CTA Pelvis (CPT® 72191) with contrast may be indicated.
 - ◆ Peyronie disease - Duplex ultrasound (CPT® 93980) can be used to assess penile vasculature in Peyronie disease¹
 - ◆ If male hypogonadism is suspected, See **HD-19: Pituitary**
- 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

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PV-18.1: Penis-Soft Tissue Mass

- Soft-tissue lesions of the penis should be evaluated initially by penile ultrasound (CPT® 76857)
- MRI Pelvis without and with contrast (CPT® 72197) can be performed:
 - ◆ Penile ultrasound (CPT® 76857) is equivocal (not clearly benign, simple cyst), or
 - ◆ Primary penile cancer is suspected.
- Peyronie Disease
 - ◆ Ultrasound (CPT® 76857) recommended,
 - ◆ MRI Pelvis without and with contrast (CPT® 72197) if US 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

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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 US Pelvis transabdominal (bladder and prostate [CPT® 76856 or CPT® 76857]).¹¹
 - ◆ Prostatitis with urinary retention or suspected abscess can undergo any of the following imaging studies:¹²
 - Transrectal ultrasound (CPT® 76872) or US Pelvis transabdominal (bladder and prostate [CPT® 76856 or CPT® 76857]).
 - If ultrasound is equivocal for abscess or mass, then CT Pelvis with contrast (CPT® 72193) or MRI Pelvis without contrast (CPT® 72195) or with and without contrast (CPT® 72197) may be performed
- Hematospermia, transrectal ultrasound (TRUS) (CPT® 76872) can be the initial imaging study in all cases.¹³
 - ◆ Pelvis MRI 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.
- Scrotal pain or mass initial evaluation by scrotal ultrasound (CPT® 76870) and/or Duplex (Doppler) scan ultrasound (CPT® 93975 or CPT® 93976) of the scrotum.
 - ◆ MRI of the Pelvis without and with contrast (CPT® 72197) or Tc-99m scrotal scintigraphy (CPT® 78761) if ultrasound is inconclusive.²
- 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, prostate, fissures, hemorrhoids, etc.)
 - Recent flexible sigmoidoscopy or colonoscopy subsequent to the start of reported symptoms to exclude inflammatory conditions or malignancy
 - ◆ Endoanal US (CPT® 76822), 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

Practice Notes

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

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PV-20: Scrotal Pathology

PV-20.1: Scrotal Pathology	58
PV-20.2: Para testicular and spermatic cord masses	58
PV-20.3: Testicular Microlithiasis	58

PV-20.1: Scrotal Pathology

- Scrotal pain or mass initial evaluation by scrotal ultrasound (CPT® 76870) and/or Duplex (Doppler) scan ultrasound (CPT® 93975 or CPT® 93976) of the scrotum.
 - ◆ MRI of the Pelvis without and with contrast (CPT® 72197) or Tc-99m scrotal scintigraphy (CPT® 78761) if ultrasound is inconclusive.^{1,2}
- Cryptorchidism/undescended testis in the adult can undergo scrotal ultrasound (CPT® 76870), MRI of the Pelvis without and with contrast (CPT® 72197), or Pelvis CT with contrast (CPT® 72193).
- Varicocele suspected (for example, in inguinal hernia evaluation) can undergo Duplex (Doppler) scan 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.
 - ◆ Imaging for right-sided varicocele, when there is suspicion for intra-abdominal pathology, may require advanced imaging with CT Abdomen and Pelvis with contrast (CPT® 74177)

Practice Notes

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

PV-20.2: Para testicular and spermatic cord masses

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

PV-20.3: Testicular Microlithiasis

- Initial evaluation by scrotal ultrasound (CPT® 76870)
- Annual ultrasound (CPT® 76870) follow-up until age 55, 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 **ONC-20: Testicular, Ovarian and Extragonadal Germ Cell Tumors**

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PV-21: Fistula in Ano**PV-21.1: Fistula in Ano****61**

PV-21.1: Fistula in Ano

- MRI Pelvis without and with contrast (CPT® 72197) is indicated for the assessment of complex or recurrent fistulas.
 - ◆ Preoperative MRI frequently alters the surgical approach and MRI guided surgery can significantly decrease postoperative recurrence in complex cases by 75%.

Practice Notes

Ideally, MRI Pelvis without and with contrast should also be performed with rectal contrast consisting of ultrasound gel for optimum characterization and pre-operative planning.

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PV-22: Incontinence/Pelvic Organ Prolapse

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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® 76856 or CPT® 76857 or CPT® 76830 [female]) 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 of the urinary tract (CPT® 76770 or CPT® 76775) and/or urodynamic studies.

Practice Notes

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:
 - ◆ Non-diagnostic ultrasound or abnormality on ultrasound that requires further evaluation
 - ◆ Complicated incontinence
 - ◆ Suspected fistulae
 - ◆ Detecting ectopic ureters if ultrasound is non-diagnostic
 - ◆ Pre-operative planning when ordered by 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.^{1,2}
 - ◆ Pelvic ultrasound (CPT® 76856 or CPT® 76857) can be performed if requested as a complimentary study to the TV ultrasound.
- 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 US (CPT® 76830) and/or Pelvic ultrasound (CPT® 76856 or CPT® 76857) are equivocal; or
 - ◆ Pre-operative planning for complex organ prolapse when ordered by the operating physician; or
 - ◆ Persistent incontinence following surgery
- Mesh and Graft complications
 - ◆ Diagnostic evaluation for mesh and graft complications may include colonoscopy, cystoscopy, urodynamics, and radiologic imaging
 - ◆ All requests are sent to Medical Director review
- 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® 76822) to confirm sphincter defects in patients with suspected sphincter injury (e.g. history of vaginal delivery or anorectal surgery)
 - ◆ MRI Pelvis (CPT® 72197) or MRI Defecography (CPT® 72195) can be considered 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

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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:
 - ◆ For suspected patent urachus, ultrasound (CPT® 76856 or CPT® 76857 and/or CPT® 76700 or CPT® 76705) or voiding cystourethrography (VCUG) (CPT® 74455)
 - ◆ If there is a suspected urachal carcinoma or other urachal abnormality, CT Pelvis with contrast (CPT® 72193) or MRI Pelvis without contrast (CPT® 71295) or with and without contrast (CPT® 71297) may be performed if the ultrasound is equivocal or if additional imaging is needed for surgical planning.

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PV-24: Nuclear Medicine

- Nuclear Medicine
 - ◆ Nuclear medicine studies are rarely used in imaging of the pelvis, but are indicated in some clinical circumstances, including the following:
 - Lymph system mapping (CPT® 78195) is indicated for lower extremity lymphedema with recent negative Doppler ultrasound, or a history of Milroy's disease or prior pelvic lymph node dissection.
- 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.
- Radiopharmaceutical Voiding Cystogram (CPT® 78730) with Urinary Bladder Residual study is indicated for suspicion of urinary retention and a recent non-diagnostic ultrasound.

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