CIGNA MEDICAL COVERAGE POLICIES – RADIOLOGY

Pelvis Imaging Guidelines

Effective Date: February 1, 2025

Instructions for use

The following coverage policy applies to health benefit plans administered by Cigna. Coverage policies are intended to provide guidance in interpreting certain standard Cigna benefit plans and are used by medical directors and other health care professionals in making medical necessity and other coverage determinations. Please note the terms of a customer's particular benefit plan document may differ significantly from the standard benefit plans upon which these coverage policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a coverage policy.

In the event of a conflict, a customer's benefit plan document always supersedes the information in the coverage policy. In the absence of federal or state coverage mandates, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of:

1. The terms of the applicable benefit plan document in effect on the date of service
2. Any applicable laws and regulations
3. Any relevant collateral source materials including coverage policies
4. The specific facts of the particular situation

Coverage policies relate exclusively to the administration of health benefit plans. Coverage policies are not recommendations for treatment and should never be used as treatment guidelines.

This evidence-based medical coverage policy has been developed by EviCore, Inc. Some information in this coverage policy may not apply to all benefit plans administered by Cigna.

These guidelines include procedures EviCore does not review for Cigna. Please refer to the **Cigna CPT code list** for the current list of high-tech imaging procedures that EviCore reviews for Cigna.

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Abbreviations for Pelvis Imaging Guidelines

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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

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Abbreviations for Pelvis Imaging Guidelines	
TV	transvaginal
UCPPS	Urologic Chronic Pelvic Pain Syndrome
WBC	white blood cell count

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General Guidelines (PV-1.0)

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

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General Guidelines – Overview (PV-1.1)

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- When indicated, pregnant females 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) is supported 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) is supported for cases of suspected urethral abnormalities, urinary incontinence, pelvic prolapse, or vaginal cysts.
- CPT® 76942 is used to report ultrasound imaging guidance for needle placement during biopsy, aspiration, and other percutaneous procedures.

Soft Tissue Ultrasound

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

Scrotal Ultrasound

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

3D Rendering with Ultrasound

- 3D Rendering (CPT® 76376 or CPT® 76377)
  - CPT® 76377 (3D rendering requiring image post-processing on an independent work station) or CPT®

    76376 (3D rendering not requiring image post-processing on an independent workstation) in the following clinical scenarios:
    - Uterine intra-cavitary lesion when initial ultrasound is equivocal (See **Abnormal Uterine Bleeding (AUB) (PV-3.1)** and **Leiomyoma/Uterine Fibroids (PV-12.1)**

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  - Hydrosalpinges or peritoneal cysts when initial ultrasound is equivocal (See **Complex Adnexal Masses (PV-5.3)**)
  - Lost IUD (inability to feel or see IUD string) with initial ultrasound (See **Intrauterine Device (PV-10.1)**)
  - Uterine anomaly is suspected on ultrasound (See **Uterine Anomalies (PV-14.1)**)
  - Infertility if ultrasound is indeterminate or there is clinical suspicion for intra-cavitary lesion (such as polyp or fibroid), hydrosalpinx, uterine synechia, adenomyosis or uterine anomalies (See **Initial Infertility Evaluation, Female (PV-9.1)**)
- There is currently insufficient data to generate appropriateness criteria for the use of 3D and 4D rendering in conjunction with Obstetrical ultrasound imaging. Per ACOG, proof of a clinical advantage of 3-dimensional ultrasonography in prenatal diagnosis, in general, is still lacking.
- 3D-4D (CPT® 76376 or CPT® 76377) rendering can be used in certain situations of abnormal pregnancy implantation like suspected C-section scar pregnancies or suspected cornual (interstitial) ectopic pregnancy, or to locate an IUD.
- 3D-4D (CPT® 76376 or CPT® 76377) rendering can be used for surgical planning with diagnosis of complex CHD in the fetus or for surgical planning of other complex fetal malformations.

Other Ultrasound

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

CT

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

MRI

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

Evidence Discussion (PV-1.1)

- Ultrasonography and magnetic resonance imaging (MRI) are the imaging techniques of choice for the pregnant patient, they should be used prudently and only when use is expected to answer a relevant clinical question.
- CT is not generally warranted for evaluating pelvic anatomy because it is limited due to soft tissue contrast resolution. Computed tomography (CT) scans are generally not recommended during pregnancy unless the benefits clearly outweigh the potential risks. Computed tomography (CT) scan if necessary in addition to ultrasonography or MRI or if more readily available for the diagnosis in question, should not be withheld from a pregnant patient. The risk of adverse effects from ionizing radiation should always be weighed against the risk of not performing the procedure and the benefit derived from the procedure.
- Ultrasound is the recommended modality for imaging the female pelvis; no alternative modality has demonstrated sufficient superiority to justify routine use, and transvaginal ultrasound is the optimal study to evaluate adult female pelvic pathology. Transabdominal pelvic ultrasound is a useful complementary study to transvaginal ultrasound and may substitute for transvaginal ultrasound in pediatric individuals or non-sexually active females. The American Institute of Ultrasound in Medicine (AIUM.org) launched an initiative in 2012 "Ultrasound First," which advocates the use of ultrasound examinations before other imaging modalities when the evidence shows that ultrasound imaging is at least equally, if not more, effective for the target anatomic area. This applies particularly to obstetric and gynecologic patients for whom a skillfully performed and well-interpreted ultrasound image usually obviates the need to proceed to additional more costly and complex cross-sectional imaging techniques.
- Transperineal ultrasound can be useful for cases of suspected urethral abnormalities, urinary incontinence, pelvic prolapse, or vaginal cysts. A study by Yang, et al confirmed transvaginal or transperineal ultrasound to be a non-invasive and cost-effective modality for diagnosis of urethral and periurethral masses. Vaginal and urethral imaging is limited on transvaginal ultrasound due to the position of the endovaginal probe rendering the vagina out of the field, on computed tomography (CT) due to poor soft tissue discrimination of the vaginal walls and on magnetic resonance imaging (MRI). MRI of the vagina should be done with thin slice thickness and proper choice of the degree of angulation and used MR sequence, otherwise there is limited evaluation of the vagina. Transperineal ultrasound is also a dynamic real-time examination, and can detect subtle abnormalities that are not seen in static imaging.
- Scrotal ultrasound is supported for evaluation of scrotal pain or suspected mass. The American Urological Association recommends scrotal ultrasound for initial evaluation of unilateral or bilateral scrotal mass suspicious for neoplasm.
- Three-dimensional (3D) rendering with ultrasound can be considered when ultrasound shows suspected uterine anomaly, uterine intra-cavitary lesion,

hydrosalpinges or peritoneal cysts. A study by Laskshmy et al found 3D ultrasound to be a highly sensitive and specific tool for accurately diagnosing congenital uterine anomalies. 3D rendering has shown a high degree of concordance with MRI and laparoscopy for congenital uterine anomalies, and is non-invasive, readily available and relatively cost-effective. Three-dimensional ultrasound is a noninvasive method for evaluation of adnexal pathology.

- Doppler scan can be of benefit in addition to ultrasound for further evaluation of suspected uterine or ovarian abnormalities. Doppler flow mapping is useful in diagnosing submucosal fibroids and endometrial polyps. Per ACOG (American College of Obstetrics and Gynecology), color Doppler ultrasonography is useful to evaluate the vascular characteristics of adnexal masses. MRI pelvis is useful in cases such as inconclusive ultrasound for adenomyosis, "MRI is a second-line examination in the diagnosis of internal adenomyosis, mainly after a non-conclusive US evaluation. In addition, MRI can differentiate between the subtypes of adenomyosis." MRI pelvis is also useful for further evaluation of indeterminate adnexal masses. A study by Dirrichs, et al found MRI to improve sensitivity and specificity of diagnosis of indeterminate adnexal masses detected at TVUS, and use of MRI changed therapeutic management in 34% of cases. MRI can aid in the diagnosis of deep pelvic endometriosis. MRI pelvis is useful for further evaluation of unexplained pelvis pain when ultrasound evaluation is inconclusive. Pelvic MRI is useful for evaluation of fibroids prior to uterine-sparing interventional techniques. "Although a high-quality ultrasonography (US) examination may be sufficient for evaluation in patients with straightforward cases of fibroids (for instance to estimate the size of a dominant fibroid), imaging evaluation is most reliably performed with magnetic resonance (MR) imaging to determine the characteristics, number, size, and location of fibroids and to assess for other pathologic conditions such as adenomyosis."

References (PV-1)

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1. Practice Bulletin No. 174. The Evaluation and Management of Adnexal Masses. *Obstetrics & Gynecology*. 2016 Reaffirmed 2021;128(5):1193-1195. doi:10.1097/aog.0000000000001763
2. Lakshmy S, Rose N, Ramachandran M. Role of three dimensional ultrasound in uterine anomalies - 3D assessment of cervix in septate uteri. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*. 2016:3563-3567. doi:10.18203/2320-1770.ijrcog20163445
3. Benacerraf BR, Abuhamad AZ, Bromley B, et al. Consider ultrasound first for imaging the female pelvis. *American Journal of Obstetrics and Gynecology*. 2015;212(4):450-455. doi:10.1016/j.ajog.2015.02.015
4. Turkgeldi E, Urman B, Ata B. Role of Three-Dimensional Ultrasound in Gynecology. *Journal of Obstetrics and Gynaecology of India*. 2014;65(3):146-154. doi:10.1007/s13224-014-0635-z
5. Graupera B, Pascual MA, Hereter L, et al. Accuracy of three-dimensional ultrasound compared with magnetic resonance imaging in diagnosis of Müllerian duct anomalies using ESHRE-ESGE consensus on the classification of congenital anomalies of the female genital tract. *Ultrasound in Obstetrics & Gynecology*. 2015;46(5):616-622. doi:10.1002/uog.14825
6. Sakhel K, Benson CB, Platt LD, Goldstein SR, Benacerraf BR. Begin with the basics: role of 3-dimensional sonography as a first-line imaging technique in the cost-effective evaluation of gynecologic pelvic disease. *Journal of Ultrasound in Medicine*. 2013;32(3):381-388. doi:10.7863/jum.2013.32.3.381
7. AIUM Practice Parameter for the Performance of an Ultrasound Examination of the Female Pelvis *J Ultrasound Med* 2020; 9999:1-7
8. Seidel, H. M. (2011). Mosby's guide to physical examination. St. Louis, Mo: Mosby/Elsevier
9. Practice Bulletin No. 175: Ultrasound in Pregnancy, *Obstetrics & Gynecology*: December 2016 - Volume 128 - Issue 6 - p e241-e25 Reaffirmed 2022
10. Lloyd DFA, Pushparajah K, Simpson JM, et al. Three-dimensional visualisation of the fetal heart using prenatal MRI with motion-corrected slice-volume registration: a prospective, single-centre cohort study.

    Lancet. 2019;393(10181):1619-1627. doi:10.1016/s0140-6736(18)32490-5.
11. Guidelines for diagnostic imaging during pregnancy and lactation. Committee Opinion No. 723. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017;130:e210–6. Reaffirmed 2021.
12. ACR-SPR Practice Parameter for Imaging Pregnant or Potentially Pregnant Patients with Ionizing Radiation. Resolution 31, revised 2023.
13. Minton K.K., Abuhamad A.Z., 2012 Ultrasound First Forum Proceedings. J Ultrasound Med. 2013; 32: 555-566.
14. Yang et al. Ultrasonographic Imaging Features of Female Urethral and Peri-urethral Masses. Ultrasound in Medicine and Biology. 2020:46 (8):1896-1907.
15. Hamed ST, Mansour SM. Surface transperineal ultrasound and vaginal abnormalities: applications and strengths. Br J Radiol. 2017 Dec;90(1080):20170326. doi: 10.1259/bjr.20170326.
16. Hartman MS, Leyendecker JR, Friedman B, et al. ACR Appropriateness Criteria® Acute Onset of Scrotal Pain–Without Trauma, Without Antecedent Mass. Last review date: 2019. https://acsearch.acr.org/docs/69363/Narrative/
17. Stephenson A, Eggener SE, Bass EB, et al. Diagnosis and Treatment of Early Stage Testicular Cancer: AUA Guideline. Journal of Urology. 2019;202(2):272-281. doi:10.1097/ju.0000000000000318.
18. Meng-Hsing Wu, Yueh-Chin Cheng, Chiung-Hsin Chang, Huei-Chen Ko, Fong-Ming Chang, Three-dimensional Ultrasound in Evaluation of the Ovary. Journal of Medical Ultrasound, Volume 20, Issue 3, 2012, Pages 136-141, ISSN 0929-6441, https://doi.org/10.1016/j.jmu.2012.07.001.
19. Cil AP, Tulunay G, Kose MF, Haberal A. Power Doppler properties of endometrial polyps and submucosal fibroids: a preliminary observational study in women with known intracavitary lesions. Ultrasound Obstet Gynecol. 2010 Feb;35(2):233-7. doi: 10.1002/uog.7470. PMID: 20101638.
20. Bazot M, Daraï E. Role of transvaginal sonography and magnetic resonance imaging in the diagnosis of uterine adenomyosis. Fertility and Sterility. 2018;109(3):389-397. doi:10.1016/j.fertnstert.2018.01.024

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21. Dirrichs T, Bauerschlag D, Maass N, Kuhl CK, Schrading S. Impact of multiparametric MRI (mMRI) on the therapeutic management of adnexal masses detected with transvaginal ultrasound (TVUS): an interdisciplinary management approach. Acad Radiol. 2022;29(2):183-97. doi:10.1016/j.acra.2020.11.016
22. Macario S, Chassang M, Novellas S, et al. The Value of Pelvic MRI in the Diagnosis of Posterior Cul-DeSac Obliteration in Cases of Deep Pelvic Endometriosis. American Journal of Roentgenology. 2012;199(6):1410-1415. doi:10.2214/ajr.11.7898
23. Maturen KE, Akin EA, Dassel M, et al. ACR Appropriateness Criteria® Postmenopausal Subacute or Chronic Pelvic Pain. Journal of the American College of Radiology. 2018;15(11):S365-S372. doi:10.1016/j.jacr.2018.09.023.
24. Silberzweig JE, Powell DK, Matsumoto AH, Spies JB. Management of Uterine Fibroids: A Focus on Uterine-sparing Interventional Techniques. Radiology. 2016;280(3):675-692. doi:10.1148/radiol.2016141693
25. Zulfiqar M, Shetty A, Yano M, McGettigan M, Itani M, Naeem M, Ratts VS, Siegel CL. Imaging of the Vagina: Spectrum of Disease with Emphasis on MRI Appearance. Radiographics. 2021 SepOct;41(5):1549-1568. doi: 10.1148/rg.2021210018. Epub 2021 Jul 23.

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Abnormal Uterine Bleeding (PV-2)

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Abnormal Uterine Bleeding (AUB) (PV-2.1)

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- Pregnancy test should be done initially if premenopausal
- If pregnancy test is negative or post menopausal initial evaluation includes ANY or ALL of the following:
  - Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or Transvaginal ultrasound (CPT® 76830), D&C and/or endometrial biopsy
- Advanced imaging is not indicated for Endometrial Intraepithelial Neoplasia or Atypical Endometrial Hyperplasia (EIN-AEH).
- In females with postmenopausal bleeding
  - Those with thickened endometrium on ultrasound, those whose ultrasound failed to identify a thin, distinct endometrial strip and/or those with continued vaginal bleeding should all undergo endometrial sampling to rule out endometrial carcinoma
- If biopsy confirms a malignancy, then see the appropriate oncology guideline.
- If ultrasound is equivocal for intracavitary lesion
  - Duplex (Doppler) scan (CPT® 93975 complete; CPT® 93976 limited) as an add-on to TV ultrasound (CPT® 76830)
  - 3-D Rendering (CPT® 76377) as an add-on.
- CT is not generally warranted for evaluating AUB since uterine anatomy is limited due to soft tissue contrast resolution.
  - An abnormal endometrium found incidentally on CT should be referred for TV ultrasound for further evaluation.
- MRI is not indicated for evaluation of abnormal uterine bleeding, please see specific Pelvis Imaging sections for MRI indications for ultrasound findings such as adnexal mass or uterine fibroids See **Adnexal Mass/Ovarian Cysts (PV-5)** and **Leiomyoma/ Uterine Fibroids (PV-12.1)**.

Evidence Discussion (PV-2.1)

- Transabdominal pelvic and/or transvaginal pelvic ultrasound are widely accepted as the initial imaging modality of choice for evaluation of abnormal uterine bleeding. Ultrasound also allows for real-time evaluation with color and power Doppler which can help identify vascular flow and distinguish fluid and cysts from soft tissue. Additional benefits to ultrasound as a first line imaging modality include wide availability, fast access, and lack of ionizing radiation exposure. 3-D Rendering has

been shown to a useful adjunct for analysis of suspected lesions the endometrial cavity.

- MRI is not supported as an initial imaging modality for the diagnosis of abnormal uterine bleeding. While MRI is accepted as an adjunct modality to ultrasound in cases where ultrasound may not fully characterize a soft tissue abnormality, imaging should be directed by the type of suspected soft tissue abnormality (i.e. adenomyosis, endometriosis, fibroids, and adnexal mass) and is addressed in additional sections of these guidelines. CT is of limited use in the evaluation of abnormal uterine bleeding given its suboptimal evaluation of the soft tissue of female pelvic organs.
- In premenopausal women presenting with abnormal uterine bleeding a pregnancy test should be performed. For those with a positive pregnancy test, imaging with appropriate obstetric ultrasound should be performed.
- Vaginal bleeding is the presenting symptom in 90% of postmenopausal women with endometrial cancer. An endometrial strip of 4mm or less on ultrasound has been found to have a greater than 99% negative predictive value for endometrial cancer. However, this cutoff may be inadequate in Black women, as it missed five-fold more cases than in White women. Endometrial tissue sampling remains the gold standard for diagnosis of endometrial carcinoma. As such, those with thickened endometrium on ultrasound, those who ultrasound failed to identify a thin, distinct endometrial strip and those with continued vaginal bleeding should all undergo endometrial sampling to rule out endometrial carcinoma.
- The incidence of concurrent endometrial cancer with the diagnosis of Endometrial Intraepithelial Neoplasia or Atypical Endometrial Hyperplasia (EIN-AEH) is approximately 30% to 50%. This makes evaluation for concurrent carcinoma imperative in the diagnosis of EIN-AEH for those considering a fertility-sparing treatment. The most accurate method for diagnosis is hysteroscopic-guided uterine sampling which has the added benefit of direct visualization of any intrauterine pathology such as endometrial polyps.

Retained Products of Conception (PV-2.2)

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- 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) is supported one time, repeat US is indicated for continued symptoms
  - Color Doppler ultrasonography (CPT® 93975 or CPT® 93976) may be added to ultrasound to aid in diagnosis of RPOC
  - CT Pelvis with and without contrast (CPT® 72194) OR MRI Pelvis with and without contrast (CPT® 72197) is supported if US with Color Doppler is equivocal AND further imaging is needed for surgical planning

Evidence Discussion (PV-2.2)

- Transabdominal pelvic and/or transvaginal pelvic ultrasound are widely accepted as the initial imaging modality of choice for evaluation of suspected retained products of conception (RPOC). Ultrasound also allows for real-time evaluation with color and power Doppler which can help identify vascular flow within the endometrial complex, which improves the specificity and negative predictive value of detecting RPOC. Additional benefits to ultrasound as a first line imaging modality include wide availability, fast access, and lack of ionizing radiation exposure.
- For most cases ultrasound is sufficient for detection of RPOC. For cases where ultrasound is inconclusive additional imaging with MRI or CT may provide additional information to aid in surgical planning.

References (PV-2)

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1. Management of Endometrial Intraepithelial Neoplasia or Atypical Endometrial Hyperplasia: ACOG Clinical Consensus No. 5.Obstet Gynecol. 2023;142(3):735-744. doi:10.1097/AOG.0000000000005297
2. Trimble C, Method M, et al.Management of Endometrial Precancers. *Obstetrics & Gynecology* 2012:120(5): 1160-1175. doi: 10.1097/AOG.0b013e31826bb121
3. Practice Bulletin No. 128. Diagnosis of Abnormal Uterine Bleeding in Reproductive-Aged Women. *Obstetrics & Gynecology*. 2012;120(1):197-206; reaffirmed 2021. doi:10.1097/aog.0b013e318262e320
4. Sakhel K, Benson CB, Platt LD, Goldstein SR, Benacerraf BR. Begin With the Basics. *Journal of Ultrasound in Medicine*. 2013;32(3):381-388. doi:10.7863/jum.2013.32.3.381
5. Benacerraf BR, Abuhamad AZ, Bromley B, et al. Consider ultrasound first for imaging the female pelvis. *American Journal of Obstetrics and Gynecology*. 2015;212(4):450-455. doi:10.1016/j.ajog.2015.02.015
6. Practice Bulletin No. 136. Management of Abnormal Uterine Bleeding Associated With Ovulatory Dysfunction. *Obstetrics & Gynecology*. 2013; Reaffirmed 2022. 122(1):176-185. doi:10.1097/01.aog.0000431815.52679.bb
7. Bocca SM, Oehninger S, Stadtmauer L, et al. A Study of the Cost, Accuracy, and Benefits of 3-Dimensional Sonography Compared With Hysterosalpingography in Women With Uterine Abnormalities. *Journal of Ultrasound in Medicine*. 2012;31(1):81-85. doi:10.7863/jum.2012.31.1.81
8. Maheux-Lacroix S, Li F, Laberge PY, Abbott J. Imaging for Polyps and Leiomyomas in Women With Abnormal Uterine Bleeding. *Obstetrics & Gynecology*. 2016;128(6):1425-1436. doi:10.1097/aog.0000000000001776
9. Cil AP, Tulunay G, Kose MF, Haberal A. Power Doppler properties of endometrial polyps and submucosal fibroids: a preliminary observational study in women with known intracavitary lesions. *Ultrasound in Obstetrics and Gynecology*. 2010;35(2):233-237. doi:10.1002/uog.7470
10. Bezircioglu I, Baloglu A, Cetinkaya B, Yigit S, Oziz E. The diagnostic value of the Doppler ultrasonography in distinguishing the endometrial malignancies in women with postmenopausal bleeding. *Archives of Gynecology and Obstetrics*. 2011;285(5):1369-1374. doi:10.1007/s00404-011-2159-4
11. Gupta A, Desai A, Bhatt S. Imaging of the Endometrium: Physiologic Changes and Diseases: *Women's Imaging. Radiographics*. 2017;37(7):2206–2207. doi:10.1148/rg.2017170008
12. Postpartum hemorrhage. Practice Bulletin No. 183.*Obstetrics & Gynecology*. 2017;130(4):e168-e186. Reaffirmed 2021 doi:10.1097/aog.0000000000002351
13. Kamaya A, Krishnarao PM, Nayak N, Jeffrey RB, Maturen KE. Clinical and imaging predictors of management in retained products of conception. *Abdom Radiol (NY)*. 2016 Dec;41(12):2429-2434. doi: 10.1007/s00261-016-0954-x
14. The role of transvaginal ultrasonography in evaluating the endometrium of women with postmenopausal bleeding. ACOG Committee Opinion No. 734. *Obstetrics & Gynecology*. 2018;131(5):e124-e129. Reaffirmed 2023 doi:10.1097/aog.0000000000002631
15. Sellmyer MA, Desser TS, Maturen KE, Jeffrey RB, Kamaya A. Physiologic, Histologic, and Imaging Features of Retained Products of Conception. *RadioGraphics*. 2013;33(3):781-796. doi:10.1148/rg.333125177
16. Committee Opinion No. 557. Management of acute abnormal uterine bleeding in nonpregnant reproductive-aged women. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2013; 121:891–6. Reaffirmed 2024 doi:10.1097/01.AOG.0000428646.67925.9a
17. Expert Panel on GYN and OB Imaging; Robbins JB, Sadowski EA, Maturen KE, Akin EA, Ascher SM, Brook OR, Cassella CR, Dassel M, Henrichsen TL, Learman LA, Patlas MN, Saphier C, Wasnik AP, Glanc P. ACR Appropriateness Criteria® Abnormal Uterine Bleeding. J Am Coll Radiol. 2020 Nov;17(11S):S336-S345. doi: 10.1016/j.jacr.2020.09.008. PMID: 33153547.
18. Doll KM, Romano SS, Marsh EE, Robinson WR. Estimated performance of transvaginal ultrasonography for evaluation of postmenopausal bleeding in a simulated cohort of Black and White women in the US. JAMA Oncol 2021;7:1158–65. doi: 1001/jamaoncol.2021.1700
19. Ring KL, Mills AM, Modesitt SC. Endometrial Hyperplasia. Obstet Gynecol. 2022 Dec 1;140(6):1061-1075. doi: 10.1097/AOG.0000000000004989. Epub 2022 Nov 2. PMID: 36357974.
20. Expert Panel on GYN and OB Imaging; Uyeda JW, George E, Reinhold C, Akin EA, Ascher SM, Brook OR, Henrichsen TL, Henwood PC, Learman LA, Maturen KE, Patlas MN, Robbins JB, Sadowski EA, Saphier

C, Wall DJ, Glanc P. ACR Appropriateness Criteria® Postpartum Hemorrhage. J Am Coll Radiol. 2020 Nov;17(11S):S459-S471. doi: 10.1016/j.jacr.2020.09.011. PMID: 33153557.

Amenorrhea (PV-3)

Guideline Page

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Secondary Amenorrhea (PV-3.1)

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

Background and Supporting Information

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

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Primary Amenorrhea (PV-3.2)

PV.AM.0003.2.A
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- Prior to imaging a history, physical examination and Tanner stage should be evaluated.
- Initial evaluation may include pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) if ANY of the following:
  - Normal pubertal development and negative pregnancy test
  - Pelvic exam is indeterminate or unable to be performed
  - Delayed puberty with follicle-stimulating hormone (FSH) or luteinizing hormone (LH) that is elevated for the individual's age and Tanner stage
- If ultrasound defines a uterine or vaginal anomaly see **Uterine Anomalies (PV-14.1)**
- For suspected pituitary tumor, See **Pituitary (HD-19)** in the Head Imaging Guidelines

Background and Supporting Information

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

Evidence Discussion (PV-3)

- The initial work up of amenorrhea should include a physical exam, pregnancy test and hormonal work up. For those with a positive pregnancy test, imaging with appropriate obstetric ultrasound should be performed. Hormonal testing can help to further direct appropriate imaging.
- Transabdominal pelvic and/or transvaginal pelvic ultrasound are widely accepted as the initial imaging modality of choice for evaluation of amenorrhea. Ultrasound also allows for real-time evaluation with color and power Doppler which can help identify vascular flow and distinguish fluid and cysts from soft tissue1. Additional benefits to ultrasound as a first line imaging modality include wide availability, fast access, and lack of ionizing radiation exposure.
- MRI is supported as an adjunct to inconclusive ultrasound imaging, especially if the ultrasound is suggestive of a congenital uterine or vaginal anomaly. CT is of limited use in the evaluation of amenorrhea given its suboptimal evaluation of the soft tissue of female pelvic organs.
- For suspected Asherman's syndrome, the gold standard for diagnosis remains hysteroscopy which has the added benefit of allowing for simultaneous treatment of adhesive disease. However, hysteroscopy carries with it risks of anesthesia and uterine perforation. Hysterosaplingogram (HSG) allows for simultaneous evaluation of

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tubal patency. Sonohsyterography (SHG) has a high negative predictive value (98%), but only a modest positive predictive value (43%). MRI may be a useful adjunct to HSG, SHG and hysteroscopy, especially in cases where there is complete obstruction of the endometrial cavity limiting the diagnostic ability of these tests.

References (PV-3)

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1. Hoffman BL, Schorge JO, Schaffer JI, et al. Chapter 17. Amenorrhea. In: Hoffman BL, Schorge JO, Schaffer JI, et al, eds. Williams Gynecology. 4th ed. New York: McGraw-Hill; 2020
2. Klein DA, Paradise SL, Reeder R. Amenorrhea: an approach to diagnosis and management. *American Family Physician*. 2019 Jul 1;100(1):39-48
3. Committee Opinion No. 605. Primary Ovarian Insufficiency in Adolescents and Young Women. *Obstetrics & Gynecology*. 2014;124(1):193-197. Reaffirmed 2021 doi:10.1097/01.aog.0000451757.51964.98.
4. Polycystic ovary syndrome. ACOG Practice Bulletin No. 194. American College of Obstetricians and Gynecologists. *Obstetrics and Gynecology.* 2018. Reaffirmed 2022. 131:e157–71. doi:10.1097/aog.0000000000002656
5. Committee Opinion 779. Management of Acute Obstructive Uterovaginal Anomalies. *Obstetrics & Gynecology*. 2019;133(6). doi:10.1097/aog.0000000000003281. Reaffirmed 2021
6. Committee on Adolescent Health Care. ACOG Committee Opinion No. 728: Müllerian Agenesis: Diagnosis, Management, And Treatment. *Obstetrics and Gynecology*. 2018;131(1):e35-e42. doi:10.1097/AOG.0000000000002458. Reaffirmed 2020
7. Practice Committee of the American Society for Reproductive Medicine. Electronic address: jhayes@asrm.org. Current evaluation of amenorrhea: a committee opinion. Fertil Steril. 2024 Mar 6:S0015-0282(24)00082-7. doi: 10.1016/j.fertnstert.2024.02.001. Epub ahead of print. PMID: 38456861
8. Dreisler E, Kjer JJ. Asherman's syndrome: current perspectives on diagnosis and management. Int J Womens Health. 2019 Mar 20;11:191-198. doi: 10.2147/IJWH.S165474. PMID: 30936754; PMCID: PMC6430995.
9. Tan IF, Robertson M. The role of imaging in the investigation of Asherman's syndrome. Australas J Ultrasound Med. 2011 Aug;14(3):15-18. doi: 10.1002/j.2205-0140.2011.tb00118.x. Epub 2015 Dec 31. PMID: 28191115; PMCID: PMC5024900

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Adenomyosis (PV-4)

Guideline Page

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Adenomyosis (PV-4.1)

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

Background and Supporting Information

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

Evidence Discussion (PV-4.1)

- Transabdominal pelvic and/or transvaginal pelvic ultrasound are widely accepted as the initial imaging modality of choice for evaluation of adenomyosis. Ultrasound also allows for real-time evaluation with color and power Doppler which can help identify vascular flow and distinguish fluid and cysts from soft tissue. In the presence of features mimicking leiomyomas, Doppler US displaying vessels perpendicular to the endometrial interface, is suggestive of adenomyosis. Transvaginal ultrasound has a sensitivity of 83.8% and specificity of 63.9% for adenomyosis. The overall diagnostic accuracy of the use of transvaginal ultrasound with color Doppler for adenomyosis is 93.8%. Additional benefits to ultrasound as a first line imaging modality include wide availability, fast access, and lack of ionizing radiation exposure.
- MRI of the pelvis is a second-line examination in the diagnosis of adenomyosis, mainly after an inconclusive US evaluation. MRI pelvis is useful in individuals with coexisting leiomyoma. A meta-analysis comparing the diagnostic performance of MRI and transvaginal ultrasound reported that MRI had a pooled sensitivity of 77% and

a specificity of 89%. The authors concluded that MRI performs more favorably than transvaginal ultrasound in the presence of associated uterine leiomyomas.

References (PV-4)

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1. Practice Bulletin No. 128. Diagnosis of Abnormal Uterine Bleeding in Reproductive-Aged Women. *Obstet Gynecol*. 2012 Jul;120(1):197-206. Reaffirmed 2024 doi:10.1097/aog.0b013e318262e320.
2. Bazot M, Daraï E. Role of transvaginal sonography and magnetic resonance imaging in the diagnosis of uterine adenomyosis. *Fertility and Sterility*. 2018;109(3):389-397. doi:10.1016/j.fertnstert.2018.01.024
3. Chronic pelvic pain. ACOG Practice Bulletin No. 218. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2020; Reaffirmed 2023; 135:e98–109. doi:10.1097/aog.0000000000003716
4. Vannuccini S, Luisi S. et al. Role of Medical Therapy in the management of Uterine Adenomyosis. *Fertility and Sterility*. 2018;109(3):398-405.
5. Dessouky R, Gamil SA, Nada MG, Mousa R, Libda Y. Management of Uterine Adenomyosis: current trends and uterine artery embolization as a potential alternative to hysterectomy. *Insights Imaging*. 2019;10(1):48. Published 2019 Apr 27. doi:10.1186/s13244-019-0732-8
6. Vannuccini S, Petraglia F. Recent advances in understanding and managing adenomyosis. *F1000Res*. 2019;8: F1000 Faculty Rev-283. Published 2019 Mar 13. doi:10.12688/f1000research.17242.
7. Diagnosis and treatment of adenomyosis (Ebernella). Shirin Dason, Crystal Chan and Mara Sobel CMAJ February 16, 2021 193 (7) E242; doi: https://doi.org/10.1503/cmaj.201607
8. Chapron C, Vannuccini S, Santulli P, et al. Diagnosing adenomyosis: an integrated clinical and imaging approach. *Human Reproduction Update*. 2020;26(3):392-411. doi:10.1093/humupd/dmz049
9. Moawad G, Fruscalzo A, Youssef Y, Kheil M, Tawil T, Nehme J, Pirtea P, Guani B, Afaneh H, Ayoubi JM, Feki A. Adenomyosis: An Updated Review on Diagnosis and Classification. J Clin Med. 2023 Jul 21;12(14):4828. doi: 10.3390/jcm12144828. PMID: 37510943; PMCID: PMC10381628
10. Expert Panel on GYN and OB Imaging; Robbins JB, Sadowski EA, Maturen KE, Akin EA, Ascher SM, Brook OR, Cassella CR, Dassel M, Henrichsen TL, Learman LA, Patlas MN, Saphier C, Wasnik AP, Glanc P. ACR Appropriateness Criteria® Abnormal Uterine Bleeding. J Am Coll Radiol. 2020 Nov;17(11S):S336-S345. doi: 10.1016/j.jacr.2020.09.008. PMID: 33153547.

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Adnexal Mass/ Ovarian Cysts (PV-5)

Guideline Page

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Suspected Adnexal Mass – Initial Evaluation (PV-5.1)

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

Background and Supporting Information

- Consultation with or referral to a gynecologic oncologist is recommended for females 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.

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- Suspected Adnexal Mass – Tumor Markers
  - The adnexa include the ovaries, Fallopian tubes, and ligaments that hold the uterus in place.
  - CA-125 is a tumor marker that is useful for the evaluation of adnexal mass:
    - Elevation occurs with both malignant (epithelial cancer) and benign entities (leiomyoma, endometriosis, PID, inflammatory disease such as lupus, and inflammatory bowel disease).
    - Increase in the markers over time occurs with malignancy only
    - Consider tumor markers in individuals with an abnormal ultrasound that is not a simple cyst
  - Other markers include Beta hCG, LDH, and AFP (germ cell tumors) and Inhibin A and B (granulosa cell tumor).

Simple Cysts (PV-5.2)

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- 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
  - 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 12 months with TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856) ◦ If smaller (≥10-15% decrease) no further surveillance. ◦ If stable follow-up TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856) at 24 months from initial exam ◦ If enlarging (≥10%-15% increase) follow-up TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856) at 12 and 24 months from initial exam • If there is a change in morphology on follow imaging see **Complex Adnexal Masses (PV 5.3)**

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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.

Size	Pre-Menopausal	Post-Menopausal
>10 cm	• If not excised consider US follow up within 6 months. TV Ultrasound (CPT® 76830) and/ or Pelvic ultrasound (CPT® 76857 or CPT® 76856) • If stable follow up Ultrasound can be done at 12 and 24 months from initial exam • If solid component, MRI Pelvis without and with contrast (CPT® 72197) may be approved • If ultrasound equivocal for Simple cyst, 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 not excised consider US follow up within 6 months. TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856) • If stable follow up Ultrasound can be done at 12 and 24 months from initial exam • If solid component, MRI Pelvis without and with contrast (CPT® 72197) may be approved • If ultrasound equivocal for Simple cyst, 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)

Complex Adnexal Masses (PV-5.3)

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- Ultrasound imaging should provide characteristics of the cyst/mass prior to consideration of advanced imaging.
- Complex cysts found on ultrasound have characteristics that include: solid areas or excrescences, and/or debris, may have greater than 3mm irregular septations, and/or mural nodules with Doppler-detected blood flow, and/or free abdominal/pelvic fluid. Complex cysts have an O-RADS™ 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.

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Follow up Complex Adnexal Masses

Condition	Pre-Menopausal	Post-Menopausal
Typical hemorrhagic cyst < 10 cm (O-RADS™ 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. ◦ If stable follow up TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856) can be done at 24 months from initial exam	• Early postmenopausal (<5 years) either: ◦ follow-up TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856) in 2-3 months OR ◦ MRI Pelvis without and with contrast (CPT® 72197) • Late postmenopausal (≥ 5 years) hemorrhagic cyst should not occur ◦ MRI Pelvis without and with contrast (CPT® 72197)

Condition	Pre-Menopausal	Post-Menopausal
Hemorrhagic cyst ≥10cm (O-RADS™ 3)	• If initial ultrasound imaging confirms a Typical Hemorrhagic cyst ≥10cm ◦ If not excised consider TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856) follow up within 6 months ▪ If stable, follow up Ultrasound can be done at 12 and 24 months from initial exam ◦ If solid component, MRI Pelvis without and with contrast (CPT® 72197) may be approved ◦ If ultrasound equivocal for Hemorrhagic cyst, 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) can be considered

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Condition	Pre-Menopausal	Post-Menopausal
Typical Endometriomas < 10cm (O-RADS™ 2)	• If initial imaging confirms a Typical Endometrioma, follow-up Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830); duplex (Doppler) scan (CPT® 93975 complete; CPT® 93976 limited) may be approved as an add-on to TV ultrasound (CPT® 76830) ◦ If <10cm and not surgically excised follow-up TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856) in 12 months ▪ If stable follow up Ultrasound can be done at 24 months from initial exam ◦ 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)	• If initial ultrasound imaging confirms a typical endometrioma < 10cm then either: ◦ Follow-up TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856) in 2-3 months OR ◦ MRI Pelvis without and with contrast (CPT® 72197)

Condition	Pre-Menopausal	Post-Menopausal
Typical Endometriomas ≥10cm (O-RADS™ 3)	• If initial ultrasound imaging confirms a Typical Endometrioma ≥10cm ◦ If not excised consider TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856) follow up within 6 months ▪ If stable follow up Ultrasound can be done at 12 and 24 months from initial exam ◦ If solid component, MRI Pelvis without and with contrast (CPT® 72197) may be approved ◦ If ultrasound equivocal for Endometrioma, 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)

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Condition	Pre-Menopausal	Post-Menopausal
Typical Dermoid < 10cm (O-RADS™ 2)	• If initial features are only suggestive for or if assessment is uncertain follow up Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) within 3 months is appropriate • If initial ultrasound imaging confirms a Dermoid, follow-up Pelvic ultrasound (CPT® 76856 or CPT® 76857); and/or TV ultrasound (CPT® 76830); duplex (Doppler) scan (CPT® 93975 complete; CPT® 93976 limited) may be approved as an add-on to TV ultrasound (CPT® 76830). ◦ If ≤10 cm, may consider follow-up TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856) in 12 months if not surgically excised ▪ If stable follow up Ultrasound can be done at 24 months from initial exam ◦ 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)	• Same as Pre-Menopausal

Condition	Pre-Menopausal	Post-Menopausal
Typical Dermoid ≥ 10cm (O-RADS™ 3)	• If initial ultrasound imaging confirms a Typical Dermoid ≥10cm ◦ If not excised consider TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856) follow up within 6 months ▪ If stable follow up Ultrasound can be done at 12 and 24 months from initial exam ◦ If solid component, MRI Pelvis without and with contrast (CPT® 72197) may be approved ◦ 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)	• Same as Pre-Menopausal
Typical benign extraovarian lesions Hydrosalpinges (Hydrosalpinx) or Peritoneal cysts (ORADS™ 2)	• If initial imaging confirms hydrosalpinx or peritoneal cysts, follow up imaging is not indicated	• If initial imaging confirms hydrosalpinx or peritoneal cysts, follow up imaging is not indicated

Complex and/or solid adnexal mass incompletely evaluated by ultrasound

- Generally a repeat ultrasound is recommended (see table above for appropriate time intervals): TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856)
- MRI Pelvis without and with contrast (CPT® 72197, CPT® 72195 if pregnant) one time:
  - 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
  - O-RADS™ score of 3 with a solid component
  - O-RADS™ score of 4 or 5
- Concern for metastatic ovarian malignancy, see **Ovarian Cancer (ONC-21)** in the Oncology Imaging Guidelines

Background and Supporting Information

O-RADS™ Classification

O-RADS	
O-RADS™ 0	Incomplete Evaluation
O-RADS™ 1	Normal Ovary • No ovarian lesion • Physiologic cyst: follicle ≤3cm or corpus luteum typically ≤3cm
O-RADS™ 2	Almost Certainly Benign • Simple cyst less than 10 cm • Bilocular, smooth cyst • Unilocular, smooth, non-simple cysts (internal echos and/or incomplete septations) • Typical benign ovarian lesions <10cm (hemorrhagic cyst, dermoid cyst, endometrioma) • Typical benign extraovarian lesions (paraovarian cyst, peritoneal inclusion cysts, hydrosalpinx)
O-RADS™ 3	Low Risk • Typical benign ovarian lesions ≥10cm • Uni- or bilocular cyst, smooth, ≥10cm • Unilocular cyst, irregular, any size • Multilocular cyst, smooth, <10cm, Color Score (CS) <4 • Solid lesion, ± shadowing, smooth, any size, CS =1 • Solid lesion, shadowing, smooth, any size, CS 2-3

O-RADS	
ORADS™ 4	Intermediate Risk • Bilocular cysts without solid component(s), Irregular, any size, any color score • Multilocular cysts without solid component(s) ◦ Smooth, 10 cm, CS <4 ◦ Smooth, any size, CS 4 ◦ Irregular, any size, any CS • Unilocular cyst with solid component(s) ◦ <4 papillary projections or any solid component(s) not considered a papillary projection, any size • Bl- or multilocular cyst with solid component(s), any size, CS 1-2 • Solid lesion, non-shadowing, smooth, any size, CS 2-3
ORADS™ 5	High Risk • Unilocular cyst, ≥4 papillary projections, any size, and CS • Bi- or multilocular cyst with solid component(s), any size, CS 3-4 • Solid lesion, ± shadowing, smooth, any size, CS 4 • Solid lesion, irregular, any size, any CS • Ascites and/or peritoneal nodules

Pre-Menopausal – see table above

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

Post-Menopausal – see table above

- For post-menopausal females, most pelvic complex cysts or solid masses should be evaluated for surgical intervention and have tumor markers (i.e. CA-125) measured.

- Some females 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.

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

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

Evidence Discussion (PV-5)

- Transabdominal pelvic and/or transvaginal pelvic ultrasound are widely accepted as the initial imaging modality of choice for female reproductive organs. Ultrasound has high sensitivity (>90%) for adnexal pathology. Ultrasound also allows for real-time evaluation with color and power Doppler which can help identify vascular flow and differentiate solid components. Additional benefits to ultrasound as a first line imaging modality include wide availability, fast access and lack of ionizing radiation exposure. MRI is accepted as an adjunct modality to ultrasound in cases where ultrasound may not fully characterize a soft tissue abnormality due to its superior signal to noise ratio. CT is of limited use in the evaluation of adnexal masses given its suboptimal delineation of adnexal soft tissue.
- Accurate diagnosis of adnexal pathology is imperative in order to limit invasive interventions for benign lesions and improve preoperative triage to a gynecologic oncologist for high-risk lesions. In order to standardize reporting of adnexal lesions, the American College of Radiology (ACR) has created the Ovarian-Adnexal Reporting and Data-System (O-RADS). A meta-analysis of 26 studies demonstrated that O-RADS has high sensitivity for detection of malignancy (95%). A classification of O-RADS US Category 2 has an extremely low risk of malignancy (<1%), while a Category 5 has a high risk of malignancy (≥50%). For an indeterminate lesion on ultrasound or features concerning for malignancy, adjunct imaging with MRI is supported to aid in preoperative triage.

References (PV-5)

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1. Sakhel K, Benson CB, Platt LD, Goldstein SR, Benacerraf BR. Begin With the Basics. *Journal of Ultrasound in Medicine*. 2013;32(3):381-388. doi:10.7863/jum.2013.32.3.381
2. Benacerraf BR, Abuhamad AZ, Bromley B, et al. Consider ultrasound first for imaging the female pelvis. American *Journal of Obstetrics and Gynecology*. 2015;212(4):450-455. doi:10.1016/j.ajog.2015.02.015
3. Practice Bulletin No. 174 Evaluation and Management of Adnexal masses. *Obstetrics & Gynecology*. 2016; Reaffirmed 2021.128(5):1193-1195. doi:10.1097/aog.0000000000001763
4. Alcázar JL, Guerriero S, Laparte C, Ajossa S, Jurado M. Contribution of power Doppler blood flow mapping to gray-scale ultrasound for predicting malignancy of adnexal masses in symptomatic and asymptomatic women. European *Journal of Obstetrics & Gynecology and Reproductive Biology*. 2011;155(1):99-105. doi:10.1016/j.ejogrb.2010.11.010
5. Guerriero S, Alcazar JL, Ajossa S, et al. Transvaginal Color Doppler Imaging in the Detection of Ovarian Cancer in a Large Study Population. *International Journal of Gynecological Cancer*. 2010;20(5):781-786. doi:10.1111/igc.0b013e3181de9481
6. Andreotti RF, Timmerman D, Benacerraf BR, et al. Ovarian-Adnexal Reporting Lexicon for Ultrasound: A White Paper of the ACR Ovarian-Adnexal Reporting and Data System Committee. *Journal of the American College of Radiology*. 2018;15(10):1415-1429. doi:10.1016/j.jacr.2018.07.004
7. Andreotti RF, Timmerman D, Strachowski LM, et al. O-RADS US Risk Stratification and Management System: A Consensus Guideline from the ACR Ovarian-Adnexal Reporting and Data System Committee. *Radiology*. 2020;294(1):168-185. doi:10.1148/radiol.2019191150
8. Levine D, Patel MD, Suh-Burgmann EJ, et al. Simple Adnexal Cysts: SRU Consensus Conference Update on Follow-up and Reporting. *Radiology*. 2019;293(2):359-371. doi:10.1148/radiol.2019191354
9. Atri M, Alabousi A, Reinhold C, et al. ACR Appropriateness Criteria® Clinically Suspected Adnexal Mass, No Acute Symptoms. *Journal of the American College of Radiology*. 2019;16(5). doi:10.1016/j.jacr.2019.02.011
10. Wu M-H, Cheng Y-C, Chang C-H, Ko H-C, Chang F-M. Three-dimensional Ultrasound in Evaluation of the Ovary. *Journal of Medical Ultrasound*. 2012;20(3):136-141. doi:10.1016/j.jmu.2012.07.001
11. Sladkevicius P, Jokubkiene L, Timmerman D, et al. Vessel morphology depicted by three#dimensional power Doppler ultrasound as second#stage test in adnexal tumors that are difficult to classify: prospective diagnostic accuracy study. *Ultrasound in Obstetrics & Gynecology*. 2021;57(2):324-334. doi:10.1002/uog.22191
12. Dirrichs T, Bauerschlag D, Maass N, Kuhl CK, Schrading S. Impact of multiparametric MRI (mMRI) on the therapeutic management of adnexal masses detected with transvaginal ultrasound (TVUS): an interdisciplinary management approach. *Acad Radiol*. 2022;29(2):183-97. doi:10.1016/j.acra.2020.11.016
13. American College of Radiology Committee on O-RADS™ (Ovarian and Adnexal). O-RADS MRI Risk Score Governing Concepts. Available at: https://www.acr.org/-/media/ACR/Files/RADS/O-RADS/O-RADS-MR-Risk-Stratification-System-Table-Updated-May-2023.pdf. Accessed on June 01, 2023.
14. Patel-Lippmann, K; Wasnik, A; Akin, E, et al. ACR Appropriateness Criteria® Clinically Suspected Adnexal Mass, No Acute Symptoms. 2023, https://acsearch.acr.org/docs/69466/Narrative/.
15. Zhang Q, Dai X, Li W. Systematic Review and Meta-Analysis of O-RADS Ultrasound and O-RADS MRI for Risk Assessment of Ovarian and Adnexal Lesions. AJR Am J Roentgenol. 2023 Jul;221(1):21-33. doi: 10.2214/AJR.22.28396. Epub 2023 Feb 1. PMID: 36722758
16. O-RADS US v2022: An Update from the American College of Radiology's Ovarian-Adnexal Reporting and Data System US Committee. Lori M. Strachowski, Priyanka Jha, Catherine H. Phillips, Misty M. Blanchette Porter, Wouter Froyman, Phyllis Glanc, Yang Guo, Maitray D. Patel, Caroline Reinhold, Elizabeth J. Suh-Burgmann, Dirk Timmerman, and Rochelle F. AndreottiRadiology 2023 308:3

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Endometriosis (PV-6)

Guideline Page

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Endometriosis (PV-6.1)

PV.EM.0006.1.A
v1.0.2025

- TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76856 or CPT® 76857) is the first line diagnostic exam for suspected endometriosis.
- MRI Pelvis without contrast (CPT® 72195) or without and with contrast (CPT® 72197):
  - Prior to planned surgery for suspected deep pelvic endometriosis such as rectovaginal endometriosis, deeply infiltrative bladder endometriosis, and cul-de-sac obliteration.
  - To characterize complex adnexal masses as endometrioma if ultrasound equivocal See **Complex Adnexal Masses (PV-5.3)**
    - If known or suspected thoracic endometriosis, see **Pneumothorax/Hemothorax (CH-19.1)**in the Chest Imaging Guidelines.

Evidence Discussion (PV-6.1)

- Transabdominal pelvic and/or transvaginal pelvic ultrasound (TVUS) are widely accepted as the initial imaging modality of choice for evaluation of endometriosis. A meta-analysis by Hudelist et al found transvaginal ultrasound was found to have a sensitivity and specificity of 91 and 98%, respectively, with a positive predictive value of 98% and negative predictive value of 95%. A study by Goncalves et al compared TVUS done preoperatively to diagnostic laparoscopy for deep and ovarian endometriosis. This study found TVUS to be accurate in identifying all sites of ovarian and deep endometriosis, with significantly higher sensitivity than diagnostic laparoscopy in detecting rectosigmoid endometriosis. Additional benefits to ultrasound as a first line imaging modality include wide availability, fast access, and lack of ionizing radiation exposure.
- MRI of the pelvis can be useful for cases of suspected deep pelvic endometriosis. A study by Macario et al found MRI of the pelvis prior to laparoscopy to have an overall sensitivity of 91.9% and specificity of 91.2% in the preoperative diagnosis of deep pelvic endometriosis with cul-de-sac obliteration. MRI is also indicated for further evaluation of suspected endometrioma of the ovary if ultrasound is equivocal. The American College of Radiology (ACR) Appropriateness Criteria for adnexal mass states, "When an adnexal mass is indeterminate on US, either the organ of origin is uncertain or it is unclear whether the mass is benign or malignant, then MRI with intravenous (IV) contrast (if feasible) becomes the modality of choice." Per the ACR Appropriateness Criteria, "MRI can readily diagnose typical endometriomas." A study by Dirrichs et al found MRI to improve sensitivity and specificity of diagnosis for indeterminate adnexal masses found with TVUS. In this study, MRI changed the management decision in 34% of patients.

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References (PV-6)

v1.0.2025

1. Practice Bulletin No. 114: Management of Endometriosis. *Obstetrics & Gynecology*. 2010;116(1):223-236. Reaffirmed 2022 doi:10.1097/aog.0b013e3181e8b073.
2. Hudelist G, English J, Thomas AE, Tinelli A, Singer CF, Keckstein J. Diagnostic accuracy of transvaginal ultrasound for non-invasive diagnosis of bowel endometriosis: systematic review and meta-analysis. *Ultrasound in Obstetrics & Gynecology*. 2011;37(3):257-263. doi:10.1002/uog.8858
3. Macario S, Chassang M, Novellas S, et al. The Value of Pelvic MRI in the Diagnosis of Posterior Cul-De-Sac Obliteration in Cases of Deep Pelvic Endometriosis. *American Journal of Roentgenology*. 2012;199(6):1410-1415. doi:10.2214/ajr.11.7898
4. ACOG Committee Opinion No. 760 Summary: Dysmenorrhea and Endometriosis in the Adolescent. *Obstetrics & Gynecology*. 2018;132(6):1517-1518. Reaffirmed 2021 doi:10.1097/aog.0000000000002981.
5. Guerriero S, Saba L, Pascual MA, et al. Transvaginal ultrasound vs magnetic resonance imaging for diagnosing deep infiltrating endometriosis: systematic review and meta-analysis. *Ultrasound in Obstetrics & Gynecology*. 2018;51(5):586-595. doi:10.1002/uog.18961
6. Chronic pelvic pain. ACOG Practice Bulletin No. 218. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2020; Reaffirmed 2023;135:e98–109
7. Goncalves MO, Siufi Neto J, Andres MP, Siufi D, de Mattos LA, Abrao MS. Systematic evaluation of endometriosis by transvaginal ultrasound can accurately replace diagnostic laparoscopy, mainly for deep and ovarian endometriosis. *Human Reproduction*. 2021;36(6):1492-1500. doi:10.1093/humrep/deab085
8. Nisenblat V, Bossuyt PMM, Farquhar C, Johnson N, Hull ML. Imaging modalities for the non-invasive diagnosis of endometriosis. *The Cochrane Database of Systematic Reviews*. 2016;2:CD009591. doi:10.1002/14651858.CD009591.pub2
9. Siegelman ES, Oliver ER. MR Imaging of Endometriosis: Ten Imaging Pearls. *RadioGraphics*. 2012;32(6):1675-1691. doi:10.1148/rg.326125518
10. Guerriero S, Ajossa S, Pagliuca M, Borzacchelli A, Deiala F, Springer S, Pilloni M, Taccori V, Pascual MA, Graupera B, Saba L, Alcazar JL. Advances in Imaging for Assessing Pelvic Endometriosis. Diagnostics (Basel). 2022 Nov 26;12(12):2960. doi: 10.3390/diagnostics12122960. PMID: 36552967; PMCID: PMC9777476.
11. Andreotti RF, Timmerman D, Strachowski LM, et al. O-RADS US Risk Stratification and Management System: A Consensus Guideline from the ACR Ovarian-Adnexal Reporting and Data System Committee. Radiology. 2020;294(1):168-185. doi:10.1148/radiol.2019191150.
12. Atri M, Alabousi A, Reinhold C, et al. ACR Appropriateness Criteria® Clinically Suspected Adnexal Mass, No Acute Symptoms. Journal of the American College of Radiology. 2019;16(5). doi:10.1016/j.jacr.2019.02.011.
13. Dirrichs T, Bauerschlag D, Maass N, Kuhl CK, Schrading S. Impact of multiparametric MRI (mMRI) on the therapeutic management of adnexal masses detected with transvaginal ultrasound (TVUS): an interdisciplinary management approach. Acad Radiol. 2022;29(2):183-97. doi:10.1016/j.acra.2020.11.016.

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Pelvic Inflammatory Disease (PID) (PV-7)

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Pelvic Inflammatory Disease (PV-7.1)

PV.PI.0007.1.A
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- Clinical examination alone is usually sufficient for confirming the diagnosis of pelvic inflammatory disease. See **Pelvic Pain/Dyspareunia, Female (PV-11.1)** if other causes of pelvic pain are suspected.
- Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) is the initial study for imaging of suspected pelvic inflammatory disease (PID) if diagnosis is uncertain following bimanual pelvic examination and laboratory testing (such as WBC, CRP and ESR, Microscopy of the vaginal secretions, and testing for Neisseria gonorrhoeae and Chlamydia trachomatis) OR for suspected Tubo-Ovarian Abscess (TOA). Color Doppler ultrasonography (CPT® 93975 or CPT® 93976) may be added.
- CT Pelvis with contrast (CPT® 72193) or MRI Pelvis with and without contrast (CPT® 72197):
  - If diagnosis is uncertain following examination, laboratory testing and ultrasound
  - Ultrasound shows extensive abscess formation and further imaging is needed for treatment planning
  - Suspected TOA with inconclusive ultrasound
- If suspected abdominal abscess see **Abdominal Sepsis (Suspected Abdominal Abscess) (AB-3.1)**in the Abdomen Imaging Guidelines.

Background and Supporting Information

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

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

Evidence Discussion (PV-7.1)

- Clinical examination and laboratory testing are appropriate in the initial diagnostic testing for suspected pelvic inflammatory disease (PID). Imaging studies can be helpful when further evaluation is needed and to rule out other differential diagnoses such as ovarian cysts or gastrointestinal disease.

- Transabdominal pelvic and/or transvaginal pelvic ultrasound are widely accepted as the initial imaging modality of choice for evaluation of pelvic inflammatory disease. Additional benefits to ultrasound as a first line imaging modality include wide availability, fast access, and lack of ionizing radiation exposure. The addition of Power Doppler to ultrasonography has been found to increase sensitivity in the diagnosis of PID.
- CT Pelvis or MRI Pelvis can be considered if further imaging is needed following inconclusive ultrasound for diagnosis of PID, suspected tubo-ovarian abscess, or to evaluate for the extent of PID abscess formation for treatment planning.

References (PV-7)

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1. Liu B, Donovan B, Hocking JS, Knox J, Silver B, Guy R. Improving Adherence to Guidelines for the Diagnosis and Management of Pelvic Inflammatory Disease: A Systematic Review. *Infectious Diseases in Obstetrics and Gynecology*. 2012;2012:1-6. doi:10.1155/2012/325108
2. Jaiyeoba O, Soper DE. A Practical Approach to the Diagnosis of Pelvic Inflammatory Disease. *Infectious Diseases in Obstetrics and Gynecology*. 2011;2011:1-6. doi:10.1155/2011/753037
3. Workowski KA. Centers for Disease Control and Prevention Sexually Transmitted Diseases Treatment Guidelines. *Clinical Infectious Diseases*. 2015;61(suppl 8). doi:10.1093/cid/civ771
4. Practice Bulletin No. 174. Evaluation and Management of Adnexal Masses. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2016;128:e210–26. Reaffirmed 2021 doi:10.1097/aog.0000000000001768.
5. Prevention of Infection After Gynecologic Procedures. *Obstetrics & Gynecology*. 2018;131(6):1177-1179. doi:10.1097/aog.0000000000002672
6. Revzin MV, Mathur M, Dave HB, Macer ML, Spektor M. Pelvic Inflammatory Disease: Multimodality Imaging Approach with Clinical-Pathologic Correlation. *RadioGraphics*. 2016;36(5):1579-1596. doi:10.1148/rg.2016150202
7. ACR Appropriateness Criteria® Acute Pelvic Pain in the Reproductive Age Group, Ultrasound Quarterly: June 2016 - Volume 32 - Issue 2 - p 108-115 doi: 10.1097/RUQ.0000000000000200
8. Maturen KE, Akin EA, Dassel M, et al. ACR Appropriateness Criteria® Postmenopausal Subacute or Chronic Pelvic Pain. *Journal of the American College of Radiology*. 2018;15(11):S365-S372. doi:10.1016/j.jacr.2018.09.023
9. Henrichsen TL, Maturen KE, Robbins JB, et al. ACR Appropriateness Criteria® Postmenopausal Acute Pelvic Pain. *Journal of the American College of Radiology*. 2021;18(5):S119-S125. doi:10.1016/j.jacr.2021.02.003
10. Polena V, Huchon C, Varas Ramos C, Rouzier R, Dumont A, Fauconnier A. Non-invasive tools for the diagnosis of potentially life-threatening gynaecological emergencies: a systematic review.

    PLoS One. 2015;10(2):e0114189. doi: 10.1371/journal.pone.0114189.

Polycystic Ovary Syndrome (PV-8)

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Polycystic Ovary Syndrome (PCOS) (PV-8.1)

PV.PC.0008.1.A
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- Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) is indicated when history, exam, and/or laboratory findings are suspicious for PCOS.
- Laboratory testing to be done prior to advanced imaging: Virilizing hormone levels (Testosterone and DHEAS). Disorders that mimic the clinical features of Polycystic ovary syndrome (PCOS) should be excluded by measuring: TSH, Prolactin, and 17-OHP (hydroxyprogesterone) levels. Others to consider based on the clinical presentation: Cortisol levels, ACTH, dexamethasone suppression testing, IGF-1, FSH, LH, estradiol.
- If elevated serum levels of androgens are found and an adrenal etiology is suspected - see **Adrenal Cortical Lesions (AB-16.1)** in the Abdomen Imaging Guidelines.

Background and Supporting Information

- Polycystic ovary syndrome is the most common hormonal disorder among females 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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Evidence Discussion (PV-8)

- Transabdominal pelvic and/or transvaginal pelvic ultrasound are widely accepted as the modality of choice for evaluation of the ovaries in patients with suspected polycystic ovarian syndrome (PCOS). Ultrasound allows for real-time evaluation of the pelvic anatomy, has wide availability, fast access, and lack of ionizing radiation exposure. It also allows for follicular count which will help establish the diagnosis of PCOS.
- Laboratory testing may point to other etiology of symptoms and may better direct additional imaging.
- Imaging for suspected adrenal pathology is addressed in the Abdominal Section of these guidelines.

References (PV-8)

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1. ACOG Practice Bulletin 194. Polycystic Ovary Syndrome. *Obstetrics and Gynecology*. 2018. 131(6):e157-e171. Reaffirmed 2022 doi: 10.1097/AOG.0000000000002656
2. Dumesic DA, Oberfield SE, Stener-Victorin E, Marshall JC, Laven JS, Legro RS. Scientific Statement on the Diagnostic Criteria, Epidemiology, Pathophysiology, and Molecular Genetics of Polycystic Ovary Syndrome. *Endocrine Reviews*. 2015;36(5):487-525. doi:10.1210/er.2015-1018
3. Teede HJ, Misso ML, Costello MF, et al. Erratum. Recommendations from the international evidence-based guideline for the assessment and management of polycystic ovary syndrome. *Human Reproduction*. 2018;34(2):388-388. doi:10.1093/humrep/dey363
4. Martin KA, Anderson RR, Chang RJ, et al. Evaluation and Treatment of Hirsutism in Premenopausal Women: An Endocrine Society Clinical Practice Guideline. *The Journal of Clinical Endocrinology & Metabolism*. 2018;103(4):1233-1257. doi:10.1210/jc.2018-00241
5. Mayo-Smith WW, Song JH, Boland GL, et al. Management of Incidental Adrenal Masses: A White Paper of the ACR Incidental Findings Committee. *Journal of the American College of Radiology*. 2017;14(8):1038-1044. doi:10.1016/j.jacr.2017.05.001.
6. Rotterdam ESHRE/ASRM-Sponsored PCOS Consensus Workshop Group. Revised 2003 consensus on diagnostic criteria and long-term health risks related to polycystic ovary syndrome. *Fertil Steril*. 2004;81(1):19–25.
7. Obesity in adolescents. Committee Opinion No. 714. *Obstetrics & Gynecology*. 2017. 130(3):e127-e140. Reaffirmed 2021 doi:10.1097/aog.0000000000002297

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Initial Infertility Evaluation, Female (PV-9)

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Initial Infertility Evaluation, Female (PV-9.1)

PV.IE.0009.1.C
v1.0.2025

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

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

Evidence Discussion (PV-9)

- Transabdominal pelvic and/or transvaginal pelvic ultrasound are widely accepted as the initial imaging modality of choice for evaluation of the female pelvis. Ultrasound allows for real-time evaluation, has wide availability, fast access, and lack of ionizing radiation exposure. The addition of 3D ultrasound is beneficial in cases when intrauterine abnormalities are suspected. The diagnostic accuracy of 3D ultrasound is 90% to 95% for uterine anomalies. Adding Doppler evaluation provides information about vascularity and tissue perfusion.
- Hysterosalpingography (HSG) or Sonohysterosalpingography can be utilized in assessing tubal patency. Sonohysterosalpingography is more operator dependent than HSG, however, both procedures benefit patients in that they can help avoid the more invasive laparoscopy and chromotubation, which carry the risks of surgery and anesthesia.

References (PV-9)

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1. Vickramarajah S, Stewart V, Ree KV, Hemingway AP, Crofton ME, Bharwani N. Subfertility: What the Radiologist Needs to Know. *RadioGraphics*. 2017;37(5):1587-1602. doi:10.1148/rg.2017170053
2. AIUM Practice Parameter for Ultrasonography in Reproductive Medicine. 2017 American Institute of Ultrasound in Medicine
3. B Benacerraf, T Shipp, B Bromley. Which Patients Benefit from a 3D Reconstructed Coronal View of the Uterus Added to Standard Routine 2D Pelvic Sonography? AJR Am J Roentgenol. 2008;190(3):626-629. doi:10.2214/AJR.07.2632
4. Pleş L, Alexandrescu C, Ionescu CA, Arvătescu CA, Vladareanu S, Moga MA. Three-dimensional scan of the uterine cavity of infertile women before assisted reproductive technology use. *Medicine (Baltimore)*. 2018;97(41):e12764. doi:10.1097/MD.0000000000012764
5. Groszmann YS, Benacerraf BR. Complete evaluation of anatomy and morphology of the infertile patient in a single visit; the modern infertility pelvic ultrasound examination. *Fertility and sterility*. 2016 Jun 1;105(6):1381-93. doi:10.1016/j.fertnstert.2016.03.026.
6. Practice Committee of the American Society for Reproductive Medicine. Diagnostic evaluation of the infertile female: a committee opinion. *Fertility and Sterility*. 2015;103(6):e44-e50. doi:10.1016/j.fertnstert.2015.03.019
7. Cil AP, Tulunay G, Kose MF, Haberal A. Power Doppler properties of endometrial polyps and submucosal fibroids: a preliminary observational study in women with known intracavitary lesions. *Ultrasound in Obstetrics and Gynecology*. 2010;35(2):233-237. doi:10.1002/uog.7470. doi:10.1002/uog.7470.
8. Infertility workup for the women's health specialist. ACOG Committee Opinion No. 781. American College of Obstetricians and Gynecologists. Obstetrics & Gynecol. 2019;133(6):e377-e384. Reaffirmed 2023. doi:10.1097/AOG.0000000000003271.
9. Pleş L, Alexandrescu C, Ionescu CA, Arvătescu CA, Vladareanu S, Moga MA. Three-dimensional scan of the uterine cavity of infertile women before assisted reproductive technology use. Medicine (Baltimore). 2018;97(41):e12764. doi:10.1097/MD.0000000000012764

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

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Intrauterine Device (PV-10.1)

PV.ID.0010.1.A
v1.0.2025

- Imaging to evaluate position prior to, immediately after and, for example, 6 weeks after IUD insertion is not indicated
- Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) if:
  - Abnormal pelvic exam prior to IUD insertion, such as pelvic mass, irregularly shaped uterus, or enlarged uterus
  - Suspected IUD complication:
    - Abnormal IUD position
    - Uterine perforation
    - Severe pain
    - Excessive bleeding
    - Suspected infection

"Lost" IUD inability to palpate IUD string on pelvic exam, and/or see IUD on speculum exam:

- Desires continuation of IUD for contraception, unable to visualize with cytobrush sweep of the cervix:
  - TV ultrasound CPT® 76830 abd/or Pelvic ultrasound (CPT® 76856 or CPT® 76857); with or without 3-D Rendering (CPT® 76377 or CPT® 76376)
    - If TV and/or Pelvic ultrasound is negative or non-diagnostic, plain x-ray should be performed if pregnancy test is negative
      - If IUD is not visualized on x-ray a diagnosis of expulsion can be made
    - CT Pelvis without contrast (CPT® 72192) or CT Abdomen and Pelvis without contrast (CPT® 74176) or MRI Pelvis without contrast (CPT® 72195) when both ultrasound and plain x-ray are equivocal or non-diagnostic as it may be useful to delineate IUD position and relationship to other abdominal organs.
- Desires removal of IUD and unable to palpate, see or retrieve IUD string on pelvic exam and/or speculum exam:
  - If failed attempt to retrieve IUD with instrumentation of external cervical os
    - TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76856 or CPT® 76857; with or without 3-D Rendering (CPT® 76377 or CPT® 76376)
      - If TV and/or Pelvic ultrasound is negative or non-diagnostic, plain x-ray should be performed if pregnancy test is negative

    - If IUD is not visualized on x-ray a diagnosis of expulsion can be made
  - CT Pelvis without contrast (CPT® 72192) or CT Abdomen and Pelvis without contrast (CPT® 74176) or MRI Pelvis without contrast (CPT® 72195) when both ultrasound and plain x-ray are equivocal or non-diagnostic as it may be useful to delineate IUD position and relationship to other abdominal organs.
- If pregnancy test is positive:
  - The use of gynecology CPT codes for pregnant females is not supported. Therefore, transvaginal ultrasound (CPT® 76830) and pelvic ultrasound (CPT® 76856 or CPT® 76857) are not supported for those with a positive pregnancy test or known pregnancy. If a pregnancy test is positive, then obstetrical CPT codes are indicated. **(General Guidelines (PV-1.0)**).

Hysteroscopically Placed Tubal Occlusion Device (PV-10.2)

PV.ID.0010.2.A

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

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Implantable Contraceptive Devices (PV-10.3)

PV.ID.0010.3.A
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- If implant is unable to be palpated
  - If implant is radiopaque (contains barium sulphate)
    - Initial imaging should include either Ultrasound or X-ray of arm
    - If thoracic implant migration is suspected Chest X-ray should be considered
    - If Chest X-ray is equivocal CT Chest without or with contrast (CPT® 71250 or CPT® 71260) or CTA Chest (CPT® 71275)
  - If implant is radiolucent
    - Initial imaging should include Ultrasound of the arm
    - MRI Upper Extremity without contrast (CPT® 73218) if ultrasound is equivocal
    - If thoracic implant migration is suspected MRI Chest without or without and with contrast (CPT® 71550 or CPT® 71552)

Background and Supporting Information

- As of 2019, neither the Essure nor the Adiana tubal occlusion device is in production.
- Currently the only implant available in the United States is an etonogesterl containing implant. The original version of this implant (Implanon) was released in 2001. This was replaced by an updated implant in 2011 (Nexplanon) which contains barium sulphate, making it radiopaque and easily visualized on X-ray.
- A rare complication of the implant is distant vascular migration to the pulmonary vasculature.

Evidence Discussion (PV-10)

- Transabdominal and transvaginal ultrasounds are the initial imaging methods for locating a malpositioned IUD. Ultrasound has the benefits of being widely available, accurate, and free from exposure to ionizing radiation. The addition of 3D image processing to ultrasound is advantageous as it allows for the visualization of the complete IUD, including the shaft and arms, and demonstrates its relationship to the endometrial cavity.
- In cases where the ultrasound is non-diagnostic and the pregnancy test is negative, an X-ray should be performed. X-rays are useful as IUDs are radiopaque; if the IUD is not visualized on an X-ray, a diagnosis of expulsion can be made.
- If both ultrasound and X-ray results are equivocal, CT or MRI may be useful to delineate the IUD's position and its relationship to other abdominal organs.

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References (PV-10)

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1. Boortz HE, Margolis DJA, Ragavendra N, Patel MK, Kadell BM. Migration of Intrauterine Devices: Radiologic Findings and Implications for Patient Care. *RadioGraphics*. 2012;32(2):335-352. doi:10.1148/rg.322115068
2. Prabhakaran S, Chuang A. In-office retrieval of intrauterine contraceptive devices with missing strings. *Contraception*. 2011;83(2):102-106. doi:10.1016/j.contraception.2010.07.004
3. Sakhel K, Benson CB, Platt LD, Goldstein SR, Benacerraf BR. Begin With the Basics. *Journal of Ultrasound in Medicine*. 2013;32(3):381-388. doi:10.7863/jum.2013.32.3.381
4. Benacerraf BR, Abuhamad AZ, Bromley B, et al. Consider ultrasound first for imaging the female pelvis. *American Journal of Obstetrics and Gynecology*. 2015;212(4):450-455. doi:10.1016/j.ajog.2015.02.015
5. Practice Bulletin No. 186: Long-Acting Reversible Contraception: Implants and Intrauterine Devices. *Obstet Gynecol*. 2017 Nov 2017 130(5):251-269. Reaffirmed 2021. doi: 10.1097/AOG.0000000000002394.
6. Nowitzki KM, Hoimes ML, Chen B, Zheng LZ, Kim YH. Ultrasonography of intrauterine devices. *Ultrasonography*. 2015;34(3):183-194. doi:10.14366/usg.15010
7. Guelfguat M, Gruenberg TR, Dipoce J, Hochsztein JG. Imaging of Mechanical Tubal Occlusion Devices and Potential Complications. *RadioGraphics*. 2012;32(6):1659-1673. doi:10.1148/rg.326125501
8. Simpson W, Beitia L. Multimodality imaging of the Essure tubal occlusion device. *Clinical Radiology*. 2012;67(12). doi:10.1016/j.crad.2012.08.013
9. Wong L, White N, Ramkrishna J, Júnior EA, Meagher S, Costa FDS. Three-dimensional imaging of the uterus: The value of the coronal plane. *World Journal of Radiology*. 2015;7(12):484. doi:10.4329/wjr.v7.i12.484
10. Rowlands S, Oloto E, Horwell DH. Intrauterine devices and risk of uterine perforation: current perspectives. *Open Access J Contracept*. 2016;7:19–32. Published 2016 Mar 16. doi:10.2147/OAJC.S85546
11. FSRH Guideline (February 2021) Progestogen-only Implant.

    BMJ Sex Reprod Health. 2021;47(Suppl 1):1-62. doi:10.1136/bmjsrh-2021-CHC
12. American College of Obstetricians and Gynecologists' Committee on Gynecologic Practice; Long-Acting Reversible Contraceptive Expert Work Group. Committee Opinion No 672: Clinical Challenges of Long-Acting Reversible Contraceptive Methods.

    Obstet Gynecol. 2016;128(3):e69-e77. Reaffirmed 2024 doi:10.1097/AOG.0000000000001644
13. de Kroon CD, van Houwelingen JC, Trimbos JB, Jansen FW. The value of transvaginal ultrasound to monitor the position of an intrauterine device after insertion. A technology assessment study. Hum Reprod. 2003;18(11):2323-2327. doi:10.1093/humrep/deg433

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Pelvic Pain/Dyspareunia, Female (PV-11)

Guideline Page

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Pelvic Pain/Dyspareunia, Female (PV-11.1)

PV.PD.0011.1.A
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- Often, the history, physical examination, and laboratory data can guide subsequent workup in individuals presenting with pelvic pain. When possible, use the more specific guideline, depending on clinical presentation and the differential diagnosis. (i.e.-endometriosis **Endometriosis (PV-6.1)**, **Adnexal Mass/Ovarian Cysts (PV-5)**, etc.).
- If there is clinical concern that a non gynecological condition is the cause of pelvic pain, such as a vascular, urological or gastrointestinal etiology, see the applicable guideline section(s).
- Premenopausal pelvic pain - Pregnancy test should be done prior to imaging
  - If pregnancy test is positive, see the applicable obstetrical imaging policy
- If pregnancy test is negative or postmenopausal:
  - Ultrasound – transvaginal (CPT® 76830) and/or pelvic (CPT® 76856 or CPT® 76857)
  - Duplex Doppler (CPT® 93975 or CPT® 93976) can be added if there is an ovarian mass and/or suspicion of ovarian torsion on the initial ultrasound.
  - Duplex Doppler (CPT® 93975 or CPT® 93976) for chronic pelvic pain (pelvic pain for 6 months or greater)
- Further imaging as per appropriate section of guidelines (i.e.-ovarian mass/torsion **Adnexal Mass/Ovarian Cysts (PV-5)**, PID **Pelvic Inflammatory Disease (PV-7.1)**, etc.)
- If initial ultrasound is normal, further evaluation depending on the clinical suspicion may include urological work-up, gastroenterology work-up, laparoscopic evaluation(s)
- If the initial ultrasound is equivocal for unexplained chronic pelvic pain (pelvic pain for 6 months or greater) and/or above evaluations are non-diagnostic:
  - CT Pelvis with contrast (CPT® 72193) OR
  - MRI Pelvis without contrast or with and without contrast (CPT® 72195 or CPT® 72197)
- Pelvic Pain/Hip Pain - Rule Out Piriformis Syndrome
  - See **Focal Neuropathy (PN-2.1)** in the Peripheral and Neuromuscular Nerve Disorders Imaging Guidelines
  - See **Hip (MS-24)** in the Musculoskeletal Imaging Guidelines

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

Background and Supporting Information

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

Evidence Discussion (PV-11)

- Transabdominal pelvic and/or transvaginal pelvic ultrasound are widely accepted as the initial imaging modality of choice for pelvic pain of gynecologic origin. Ultrasound also allows for real-time evaluation with color and power Doppler which can help identify vascular flow and distinguish fluid and cysts from soft tissue. Additional benefits to ultrasound as a first line imaging modality include wide availability, fast access, and lack of ionizing radiation exposure.
- MRI is accepted as an adjunct modality to ultrasound in cases where ultrasound may not fully characterize a soft tissue abnormality due to its superior signal to noise ratio. CT of the pelvis may demonstrate engorged veins, pelvic fluid, peritoneal thickening, hydrosalpinx or pyosalpinx and tubo-ovarian abscess.
- MRI pelvis, CT pelvis or endoanal ultrasound are appropriate for the evaluation of proctalgia after digital rectal examination, pelvic examination in females and recent endoscopy to exclude inflammatory conditions or malignancy.

- Often, the history, physical examination, and laboratory data can guide subsequent workup in individuals presenting with pelvic pain. If initial ultrasound is normal, further evaluation may include urological work-up, gastroenterology work-up, or laparoscopic evaluation(s).
- The differential diagnosis for chronic pelvic pain is extensive. Determining the etiology of pelvic pain is important to plan treatment.

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References (PV-11)

v1.0.2025

1. Hanno PM, Erickson D, Moldwin R, Faraday MM. Diagnosis and Treatment of Interstitial Cystitis/Bladder Pain Syndrome: AUA Guideline Amendment. *Journal of Urology*. 2015;193(5):1545-1553. doi:10.1016/j.juro.2015.01.086
2. Hanno PM, Burks DA, Clemens JQ, et al. AUA Guideline for the Diagnosis and Treatment of Interstitial Cystitis/Bladder Pain Syndrome. *Journal of Urology*. 2011;185(6):2162-2170. Amended 2014, 2022 doi:10.1016/j.juro.2011.03.064
3. Steege JF, Siedhoff MT. Chronic Pelvic Pain. *Obstetrics & Gynecology*. 2014;124(3):616-629. doi:10.1097/aog.0000000000000417
4. Wald A, Bharucha AE, Limketkai B, et al. ACG Clinical Guidelines: Management of Benign Anorectal Disorders.Am J Gastroenterol. 2021;116(10):1987-2008. doi:10.14309/ajg.0000000000001507
5. Practice Bulletin No. 114: Management of Endometriosis. *Obstetrics & Gynecology*. July 2010;116(1):223-236. Reaffirmed 2020. doi:10.1097/aog.0b013e3181e8b073
6. Practice Bulletin No. 213: Female Sexual Dysfunction. *Obstetrics & Gynecology*. 2019 July; Reaffirmed 2022; (134):1-18.
7. Practice Bulletin No. 218. Chronic pelvic pain. *Obstetrics & Gynecology*. 2020; Reaffirmed 2023;135(3). doi:10.1097/aog.0000000000003716
8. Kraemer S, Watson V, Peters KM. The Evaluation and Management of Interstitial Cystitis/Bladder Pain Syndrome. *EMJ Urol* 2019;7(1):75-82
9. Maturen KE, Akin EA, Dassel M, et al. ACR Appropriateness Criteria® Postmenopausal Subacute or Chronic Pelvic Pain. *Journal of the American College of Radiology*. 2018;15(11):S365-S372. doi:10.1016/j.jacr.2018.09.023
10. Henrichsen TL, Maturen KE, Robbins JB, et al. ACR Appropriateness Criteria® Postmenopausal Acute Pelvic Pain. *Journal of the American College of Radiology*. 2021;18(5):S119-S125. doi:10.1016/j.jacr.2021.02.003.
11. ACR Appropriateness Criteria® Acute Pelvic Pain in the Reproductive Age Group. Ultrasound Quarterly. 2016 - Volume 32 - Issue 2 - p 108-115 Revised 2023 doi: 10.1097/RUQ.0000000000000200

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Leiomyoma/Uterine Fibroids (PV-12)

Guideline Page

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Leiomyoma/Uterine Fibroids (PV-12.1)

PV.UF.0012.1.C
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Leiomyoma are also known as "fibroids".

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

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

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    - There is no evidence to support interval MRI after embolization unless persistent or recurrent symptoms
- If malignancy is suspected, See Oncology Imaging Guidelines
- MRI Pelvis with and without (CPT® 72197) for suspected leiomyosarcoma if one or more of the following ultrasound features AND symptoms are present;
    - Ultrasound features suggestive of leiomyosarcoma are:
        - Large sized (greater than 8 cm)
        - Irregular borders
        - Areas of cystic change or necrosis
        - Increase in central and peripheral vascularity
        - Rapid change in size
    - Symptoms suggestive of leiomyosarcoma would include postmenopausal women with a new or rapidly enlarging myometrial mass or rapid growth of a uterine mass in a premenopausal patient (increase of 6 weeks gestation size within 1 year)
- CT is generally not warranted for evaluating pelvic anatomy because it is limited due to soft tissue contrast resolution

Background and Supporting Information

Leiomyomata are also known as “fibroids.”

Evidence Discussion (PV-12)

- Transabdominal pelvic and/or transvaginal pelvic ultrasound are widely accepted as the initial imaging modality of choice for uterine fibroids. Ultrasound also allows for real-time evaluation with color and power Doppler which can help identify vascular flow and distinguish fluid and cysts from soft tissue. 3-D rendering is useful for further evaluation of intracavitary lesions and for surgical planning for myomectomy. Additional benefits to ultrasound as a first line imaging modality include wide availability, fast access, and lack of ionizing radiation exposure.
- MRI is accepted as an adjunct modality to ultrasound in cases where ultrasound may not fully characterize a soft tissue abnormality due to its superior signal to noise ratio. MRI can be useful for surgical planning for myomectomy, determining degeneration or necrosis of fibroids, and to plan uterine artery embolization or radiofrequency ablation.
- MRI may be considered for suspected leiomyosarcoma in cases where ultrasound features and symptoms are suggestive of this diagnosis. The reported prevalence of unsuspected sarcoma at surgery for symptomatic leiomyoma ranges widely, from 0.01% (one in 10 000) to 0.28% (one in 352).
- MRI offers the highest accuracy for characterization of uterine masses before intervention due to improved soft-tissue contrast, larger field of view, diffusion sequences, and multiplanar sequences. For procedural planning, MRI offers better

localization of fibroid position in the uterus and can be used to assess viability and arterial supply of fibroids. In the context of preprocedural planning, MRI features have been evaluated for performance in separating leiomyosarcoma from leiomyomas or atypical leiomyomas. MRI features noted in multiple studies as associated with leiomyosarcoma include the following features: intermediate to high signal intensity of the mass at T2-weighted imaging, irregular margins of the uterine mass with the adjacent myometrium, and high signal intensity at high–b value diffusion-weighted imaging and corresponding low signal intensity on apparent diffusion coefficient maps.

- MRA or CTA may be used to determine vascular flow to uterine fibroids for embolization planning in cases where MRI is insufficient. Knowledge of the vascular supply for fibroids is crucial for successful embolization of target arteries.
- CT is of limited use in the evaluation of pelvic anatomy due to limited soft tissue contrast resolution.

References (PV-12)

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1. Sakhel K, Benson CB, Platt LD, Goldstein SR, Benacerraf BR. Begin With the Basics: role of 3-dimensional sonography as a first-line imaging technique in the cost-effective evaluation of gynecologic pelvic disease. *Journal of Ultrasound in Medicine*. 2013;32(3):381-388. doi:10.7863/jum.2013.32.3.381
2. Benacerraf BR, Abuhamad AZ, Bromley B, et al. Consider ultrasound first for imaging the female pelvis. *American Journal of Obstetrics and Gynecology*. 2015;212(4):450-455. doi:10.1016/j.ajog.2015.02.015
3. Turkgeldi E, Urman B, Ata B. Role of Three-Dimensional Ultrasound in Gynecology. *Journal of Obstetrics and Gynaecology of India*. 2014;65(3):146-154. doi:10.1007/s13224-014-0635-z
4. Deshmukh SP, Gonsalves CF, Guglielmo FF, Mitchell DG. Role of MR Imaging of Uterine Leiomyomas before and after Embolization. *RadioGraphics*. 2012;32(6). doi:10.1148/rg.326125517
5. Silberzweig JE, Powell DK, Matsumoto AH, Spies JB. Management of Uterine Fibroids: A Focus on Uterine-sparing Interventional Techniques. *Radiology*. 2016;280(3):675-692. doi:10.1148/radiol.2016141693
6. Matteson KA, Butts SF. Committee Opinion No 701. Choosing the Route of Hysterectomy for Benign Disease. *Obstetrics and Gynecology*. 2017 Jun 1;129(6):1149-50 (Reaffirmed 2019)
7. Practice Bulletin No. 228. Management of Symptomatic Uterine Leiomyomas. *Obstetrics & Gynecology*. 2021;137(6):e100-e115. doi:10.1097/aog.0000000000004401
8. Hindman N, Kang S, Fournier L, Lakhman Y, Nougaret S, Reinhold C, Sadowski E, Huang JQ, Ascher S. MRI Evaluation of Uterine Masses for Risk of Leiomyosarcoma: A Consensus Statement. Radiology. 2023 Feb;306(2):e211658. doi: 10.1148/radiol.211658.
9. Stewart KA, Greenberg JA, Kho KA, Cohen Rassier SL. Radiofrequency Ablation of Leiomyomas. Obstet Gynecol. 2023 Apr 13. doi: 10.1097/AOG.0000000000005196.
10. Practice Bulletin No. 228. Management of Symptomatic Uterine Leiomyomas. Obstetrics & Gynecology. 2021;137(6):e100-e115. doi:10.1097/aog.0000000000004401
11. Maciel C, Tang YZ, Sahdev A, Madureira AM, Vilares Morgado P. Preprocedural MRI and MRA in planning fibroid embolization. Diagn Interv Radiol. 2017 Mar-Apr;23(2):163-171. doi: 10.5152/dir.2016.16623. PMID: 28163256; PMCID: PMC5338584.
12. Expert Panel on GYN and OB Imaging; Ascher, SM, Wasnik AP, Patlas MN, VanBuren W, Maturen KE. ACR Appropriateness Criteria® Fibroids. J Am Coll Radiol. 2022 Nov;19(11S):S319-S328. DOI: https://doi.org/10.1016/j.jacr.2022.09.019

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Periurethral Cysts, Urethral Diverticula, and Vaginal Masses (PV-13)

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

PV.UD.0013.1.A
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- 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) for surgical planning when ultrasound equivocal

Urethral Diverticula (PV-13.2)

PV.UD.0013.2.A

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- Initial evaluation may include 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) to evaluate any urethral abnormalities
- MRI Pelvis without and with contrast (CPT® 72197) for surgical planning

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Vaginal Masses (PV-13.3)

PV.UD.0013.3.A
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- Initial evaluation includes 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) for surgical planning

Background and Supporting Information

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

Evidence Discussion (PV-13)

- Transabdominal, transvaginal and transperineal ultrasound are often utilized as initial imaging for female pelvic anatomy. Ultrasound has the benefit of being widely available, accurate and does not have exposure to ionizing radiation. MRI is useful in cases of equivocal ultrasound imaging or for surgical planning.
- Multiple modalities can be used for the detection of urethral diverticula. Transperineal and transvaginal ultrasound can be utilized in detecting urethral diverticula. Ultrasound has the advantage of being readily available, does not require catheterization and lacks exposure to ionizing radiation. However ultrasound is operator dependent and the reported sensitivity for detection of urethral diverticula ranges from <50 to 100%. Urethrography can also be used to detect urethral diverticula with a sensitivity of 67-95% but carries the risk of radiation exposure. MRI has excellent soft tissue resolution and has a reported sensitivity of 100% for urethral diverticula.

References (PV-13)

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1. Lazarus E, Allen BC, Blaufox MD, et al. ACR Appropriateness Criteria® Recurrent Lower Urinary Tract Infection in Women. Revised 2020. https://acsearch.acr.org/docs/69491/Narrative/
2. Crescenze IM, Goldman HB. Female Urethral Diverticulum: Current Diagnosis and Management. *Current Urology Reports*. 2015;16(10). doi:10.1007/s11934-015-0540-8
3. El-Nashar SA, Singh R, Bacon MM, et al. Female Urethral Diverticulum. *Female Pelvic Medicine & Reconstructive Surgery*. 2016;22(6):447-452. doi:10.1097/spv.0000000000000312
4. Greiman AK, Rolef J, Rovner ES. Urethral diverticulum: A systematic review. *Arab Journal of Urology*. 2019;17(1):49-57. doi:10.1080/2090598x.2019.1589748
5. Desmarais CM. Skene's Gland Abscess. *Journal of Diagnostic Medical Sonography*. 2015;31(6):390-393. doi:10.1177/8756479315599545
6. Yang et al. Ultrasonographic Imaging Features of Female Urethral and Peri-urethral Masses. *Ultrasound in Medicine and Biology*. 2020:46 (8):1896-1907
7. Okeahialam NA, Taithongchai A, Sultan AH, Thakar R. Transperineal and endovaginal ultrasound for evaluating suburethral masses: comparison with magnetic resonance imaging. *Ultrasound in Obstetrics & Gynecology*. 2021;57(6):999-1005. doi:10.1002/uog.23123
8. Vaidya RV, Olson K, Wolter C, Khan A. Characterization of Urethral Diverticula in Women. Female Pelvic Med Reconstr Surg. 2022 Jan 1;28(1):54-56. doi: 10.1097/SPV.0000000000001060.
9. Pirpiris A, Chan G, Chaulk RC, Tran H, Liu M. An update on urethral diverticula: Results from a large case series. Can Urol Assoc J. 2022 Aug;16(8):E443-E447. doi: 10.5489/cuaj.7650.
10. Hamed ST, Mansour SM. Surface transperineal ultrasound and vaginal abnormalities: applications and strengths. Br J Radiol. 2017 Dec;90(1080):20170326. doi: 10.1259/bjr.20170326.
11. Zulfiqar M, Shetty A, Yano M, McGettigan M, Itani M, Naeem M, Ratts VS, Siegel CL. Imaging of the Vagina: Spectrum of Disease with Emphasis on MRI Appearance. Radiographics. 2021 Sep-Oct;41(5):1549-1568. doi: 10.1148/rg.2021210018. Epub 2021 Jul 23.

Congenital (Mullerian) Uterine and Vaginal Anomalies (PV-14)

Guideline Page

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Uterine Anomalies (PV-14.1)

PV.UA.0014.1.C

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- Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) indicated for initial evaluation. 3-D Rendering (CPT® 76377) may be an add-on if uterine anomaly is suspected on ultrasound.
- If ultrasound is indeterminate:
  - Sonohysterosalpingography (CPT® 76831)
- Retroperitoneal ultrasound (CPT® 76770 or CPT® 76775) is indicated to evaluate for possible coexisting renal anomalies.
  - MRI Abdomen without contrast or without and with contrast (CPT® 74181 or CPT® 74183) or CT urography (CT Abdomen and Pelvis without and with contrast CPT® 74178) for indeterminate renal anomaly[8] on ultrasound.
- An arcuate uterus is considered a normal variant. Therefore, advanced imaging of a known arcuate uterus is not supported.
- MRI Pelvis without and with contrast (CPT® 72197):
  - Ultrasound is indeterminate for a complex uterine anomaly, or
  - Requested for surgical planning of previously diagnosed uterine anomaly

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Vaginal Anomalies (PV-14.2)

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- Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830) and/or Transperineal ultrasound (CPT® 76872) and/or Translabial ultrasound (CPT® 76857) are indicated for initial evaluation. 3-D Rendering (CPT® 76377 or CPT® 76376) may be an add-on if vaginal anomaly is suspected on ultrasound.
- MRI Pelvis without and with contrast (CPT® 72197):
  - Ultrasound is indeterminate for a complex vaginal anomaly, or
  - Requested for surgical planning of previously diagnosed vaginal anomaly

Background and Supporting Information

- Mullerian anomalies are complex structural anomalies deriving from errors in the embryonic development of the mullerian duct. These may include uterine remnant or agenesis, cervical agenesis, unicornate utereus, bicornuate uterus, uterine didelphys, septate uterus, vaginal septum and/or other complex anomalies.

Evidence Discussion (PV-14)

- Transabdominal and transvaginal ultrasound remain the preferred initial imaging for female pelvic anatomy. Ultrasound has the benefit of being widely available, accurate and does not have exposure to ionizing radiation, making it an excellent first line modality for the evaluation of Müllerian anomalies. With the addition of 3D imaging, ultrasound has a reported sensitivity as high as 100% for the detection of uterine anomalies. MRI is also highly sensitive for the detection of uterine anomalies and is useful in cases of equivocal ultrasound imaging or for surgical planning of known complex malformations.
- For detection of congenital anomalies of the kidney and upper urinary tract ultrasound is usually the first line imaging modality because of its wide availability, low cost and lack of ionizing radiation. CT or MRI can be utilized for further delineation of the renal anatomy in cases where ultrasound is inconclusive.

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References (PV-14)

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1. Benacerraf BR, Abuhamad AZ, Bromley B, et al. Consider ultrasound first for imaging the female pelvis. *American Journal of Obstetrics and Gynecology*. 2015;212(4):450-455. doi:10.1016/j.ajog.2015.02.015
2. Graupera B, Pascual MA, Hereter L, et al. Accuracy of three-dimensional ultrasound compared with magnetic resonance imaging in diagnosis of Müllerian duct anomalies using ESHRE-ESGE consensus on the classification of congenital anomalies of the female genital tract. *Ultrasound in Obstetrics & Gynecology*. 2015;46(5):616-622. doi:10.1002/uog.14825
3. ACR–SAR–SPR Practice Parameter for the Performance of Magnetic Resonance Imaging of the Soft Tissue Components of the Pelvis. Revised 2020 (Resolution 28). https://www.acr.org/-/media/ACR/Files/Practice-Parameters/mr-softtissue-pel.pdf?la=en
4. Committee Opinion No. 779 Management of Acute Obstructive Uterovaginal Anomalies. *Obstetrics & Gynecology*. 2019; Reaffirmed 2021;133(6). doi:10.1097/aog.0000000000003281
5. Committee Opinion No. 728 Mullerian Agenesis: Diagnosis, Management and Treatment. *Obstetrics & Gynecology*. 2018;131(1). Reaffirmed 2020. doi:10.1097/aog.0000000000002458
6. Uterine septum: a guideline Practice Committee of the American Society for Reproductive Medicine. *Fertility and Sterility*. 2016;106(3):530-540. doi:10.1016/j.fertnstert.2016.05.014
7. Ramanathan, Subramaniyan et al. “Multi-modality imaging review of congenital abnormalities of kidney and upper urinary tract.” *World journal of radiology* vol. 8,2 (2016): 132-41. doi:10.4329/wjr.v8.i2.132
8. Houat AP, Guimarães CTS, Takahashi MS, et al. Congenital Anomalies of the Upper Urinary Tract: A Comprehensive Review. *RadioGraphics*. 2021;41(2):462-486. doi:10.1148/rg.2021200078
9. Pfeifer SM, Attaran M, Goldstein J, et. al. ASRM müllerian anomalies classification 2021.

   *Fertil Ster*il. 2021;116(5):1238-1252. doi:10.1016/j.fertnstert.2021.09.025.

Fetal MRI and Other Pregnancy Imaging (PV-15)

Guideline Page

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Fetal MRI (PV-15.1)

PV.MR.0015.1.C
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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)

- *eviCore does not review Fetal MRI for Cigna

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

PV.MR.0015.2.C

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- See Cigna Coverage Policy 0142 Ultrasound in Pregnancy (including 3D, 4D and 5D Ultrasound)
- MRI Pelvis without contrast (CPT® 72195) if the ultrasound is indeterminate or advanced imaging is needed for surgical planning.
- MRI Pelvis without contrast (CPT® 72195) is the appropriate code if only placenta or maternal pelvis is imaged without fetal imaging
  - Abdominal imaging is not indicated to evaluate a pelvic organ such as uterus, tubes, or ovaries.

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C-section, Cornual or Interstitial Ectopic Pregnancy (PV-15.3)

PV.MR.0015.3.C

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

Pelvimetry (PV-15.4)

PV.MR.0015.4.A

v1.0.2025

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

Evidence Discussion (PV-15)

- Transabdominal and transvaginal obstetric ultrasound remain the preferred initial imaging for fetal evaluation of the fetus and maternal pelvic anatomy. Ultrasound has the benefit of being widely available and does not have exposure to ionizing radiation.Paragraph
- Fetal MRI has emerged as an adjunct imaging to fetal ultrasound in cases where the initial ultrasound is unclear or additional information is needed for surgical or delivery planning. It has the benefits of not being limited by maternal body habitus, fetal position, ossification of fetal skull/bones, or oligohydramnios.
- There is much uncertainty surrounding the use of gadolinium in pregnancy. Gadolinium is water-soluble and can cross the placenta, reaching the amniotic fluid and fetal circulation. While the risk of fetal effects of gadolinium remains uncertain, it has been shown to be teratogenic in animal studies. Given these possible fetal risks, the use of gadolinium in pregnancy should be limited. Its use should only be in situations where the benefits clearly outweigh the risks.
- MRI can be used as an adjunct to ultrasound if there is suspicion for abnormal placentation. Sensitivity and specificity for placental invasion is comparable between ultrasound and MRI (sensitivity of 88% and sensitivity of 86% for ultrasound and 93% and 94% for MRI). MRI has also been associated with both false positive and false negative diagnoses. Hence, a stepwise approach to evaluation, starting with ultrasound, then followed by the use of MRI for equivocal or nondiagnostic ultrasound is supported.
- Ectopic pregnancy is the leading cause of maternal mortality in the first trimester. Ultrasound remains the initial imaging modality for ectopic pregnancy, but MRI may add additional information, especially in cases of rare implantation-site ectopic pregnancy (e.g. Cesarean Section scar ectopic). MRI is indicated in cases where the ultrasound is nondiagnostic.
- There is currently insufficient evidence to support the use of imaging pelvimetry (x-ray, CT or MRI) in delivery planning.

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References (PV-15)

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1. Saleem SN. Fetal MRI: An approach to practice: A review. *Journal of Advanced Research*. 2014;5(5):507-523. doi:10.1016/j.jare.2013.06.001
2. American College of Radiology (ACR), Society for Pediatric Radiology (SPR). ACR-SPR practice guideline for the safe and optimal performance of fetal magnetic resonance imaging (MRI). American College of Radiology (ACR). Revised 2015 (Resolution 11). Revised 2020 (Resolution 45) https://www.acr.org/-/media/ACR/Files/Practice-Parameters/MR-Fetal.pdf
3. Kilcoyne A, Shenoy-Bhangle AS, Roberts DJ, Sisodia RC, Gervais DA, Lee SI. MRI of Placenta Accreta, Placenta Increta, and Placenta Percreta: Pearls and Pitfalls. *American Journal of Roentgenology*. 2017;208(1):214-221. doi:10.2214/ajr.16.16281
4. Reddy UM, Abuhamad AZ, Levine D, Saade GR. Fetal Imaging: Executive Summary of a Joint Eunice Kennedy Shriver National Institute of Child Health and Human Development, Society for Maternal-Fetal Medicine, American Institute of Ultrasound in Medicine, American College of Obstetricians and Gynecologists, American College of Radiology, Society for Pediatric Radiology, and Society of Radiologists in Ultrasound Fetal Imaging Workshop. *Obstetrics & Gynecology*. 2014;123(5):1070-1082. doi:10.1097/aog.0000000000000245
5. Cahill AG, Beigi R, Heine RP, Silver RM, Wax JR. Placenta Accreta Spectrum. *American Journal of Obstetrics and Gynecology*. 2018;219(6). doi:10.1016/j.ajog.2018.09.042
6. Prayer D, Malinger G, Brugger PC, et al. ISUOG Practice Guidelines: performance of fetal magnetic resonance imaging. *Ultrasound in Obstetrics & Gynecology*. 2017;49(5):671-680. doi:10.1002/uog.17412
7. Shainker SA, Coleman B, Timor IE, Bhide A, Bromley B, Cahill AG, Gandhi M, Hecht JL, Johnson KM, Levine D, Mastrobattista J. Special Report of the Society for Maternal-Fetal Medicine Placenta Accreta Spectrum Ultrasound Marker Task Force: Consensus on definition of markers and approach to the ultrasound examination in pregnancies at risk for placenta accreta spectrum. *American Journal of Obstetrics and Gynecology*. 2021 Jan;224(1):B2-14
8. American College of Obstetricians and Gynecologists Committee Opinion No. 723. Guidelines for diagnostic imaging during pregnancy and lactation. *Obstetrics & Gynecology*. 2017; Reaffirmed 2021;130(4). doi:10.1097/aog.0000000000002355
9. Ramanathan S, Raghu V, Ladumor SB, Nagadi AN, Palaniappan Y, Dogra V, Schieda N. Magnetic resonance imaging of common, uncommon, and rare implantation sites in ectopic pregnancy. *Abdom Radiol (NY)*. 2018 Dec;43(12):3425-3435. doi: 10.1007/s00261-018-1604-2
10. Dibble EH, Lourenco AP. Imaging Unusual Pregnancy Implantations: Rare Ectopic Pregnancies and More. *AJR Am J Roentgenol*. 2016 Dec;207(6):1380-1392. doi: 10.2214/AJR.15.15290
11. Pattinson RC, Cuthbert A, Vannevel V. Pelvimetry for fetal cephalic presentations at or near term for deciding on mode of delivery. *Cochrane Database of Systematic Reviews*. Published online March 30, 2017. doi:10.1002/14651858.cd000161.pub2
12. Salk I, Cetin A, Salk S, Cetin M. Pelvimetry by Three-Dimensional Computed Tomography in Non-Pregnant Multiparous Women Who Delivered Vaginally. *Polish Journal of Radiology*. 2016;81:219-227. doi:10.12659/pjr.896380
13. Lloyd DFA, Pushparajah K, et. al. Three-dimensional visualisation of the fetal heart using prenatal MRI with motion-corrected slice-volume registration: a prospective, single-centre cohort study. *Lancet*. 2019 Apr 20;393(10181):1619-1627. doi: 10.1016/S0140-6736(18)32490-5
14. Committee Opinion No. 723 Summary: Guidelines for Diagnostic Imaging During Pregnancy and Lactation. Obstet Gynecol. 2017;130(4):933-934. Reaffirmed 2021. doi:10.1097/AOG.0000000000002350
15. Expert Panel on Women's Imaging, Poder L, Weinstein S, et al. ACR Appropriateness Criteria® Placenta Accreta Spectrum Disorder. J Am Coll Radiol. 2020;17(5S):S207-S214. doi:10.1016/j.jacr.2020.01.031

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

Guideline Page

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Molar Pregnancy and GTN (PV-16.1)

PV.MP.0016.1.A
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- Molar pregnancy –
  - Ultrasound is the initial study of choice
  - Once diagnosed on an Obstetrical Ultrasound treatment is usually evacuation.
- Individuals should undergo chest x-ray pre- and post-evacuation.
  - If chest x-ray is positive for metastases, management as per GTN guidelines, see

    Gestational Trophoblastic Neoplasia (GTN)/Choriocarcinoma (ONC-22.5) in the Oncology Imaging Guidelines.
- Serum hCG levels are obtained every 1-2 weeks after treatment of molar pregnancy until they normalize
- Individuals with a molar pregnancy and rising or plateauing hCG levels post evacuation and/or Gestational trophoblastic neoplasia
  - See **Gestational Trophoblastic Neoplasia (GTN)/Choriocarcinoma (ONC-22.5)** in the Oncology Imaging Guidelines.

References (PV-16)

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1. Soper JT. Gestational Trophoblastic Disease. *Obstetrics & Gynecology*. 2021;137(2):355-370. doi:10.1097/aog.0000000000004240
2. Abu-Rustum NR, Yashar CM, Arend R, et al. National Comprehensive Cancer Network (NCCN) Guidelines Version 1.2023 – October 27, 2023. Gestational Trophoblastic Neoplasia, Gestational Trophoblastic Neoplasia, available at: https://www.nccn.org/professionals/physician_gls/pdf/gtn.pdf. Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines™ for Gestational Trophoblastic Neoplasia, V1.2024 -10/27/23. ®2023 National Comprehensive Cancer Network, Inc. All rights reserved. The NCCN Guidelines™ and illustrations herein may not be reproduced in any form for any purpose without the express written permission of the NCCN. To view the most recent and complete version of the NCCN Guidelines™, go online to NCCN.org.
3. Horowitz NS, Eskander RN, Adelman MR, Burke W. Epidemiology, diagnosis, and treatment of gestational trophoblastic disease: A Society of Gynecologic Oncology evidenced-based review and recommendation.

   Gynecol Oncol. 2021;163(3):605-613. doi:10.1016/j.ygyno.2021.10.003.

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Impotence/Erectile Dysfunction (PV-17)

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Impotence/Erectile Dysfunction (PV-17.1)

PV.ED.0017.1.A
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- Imaging depends on the suspected disease:
  - Penile Doppler ultrasound (CPT® 93980) if erectile dysfunction suspected[2]
  - CTA Pelvis with contrast (CPT® 72191) if large vessel vascular insufficiency is suspected following ultrasound.
  - Duplex ultrasound (CPT® 93980) to assess penile vasculature in Peyronie's disease[1]
  - If male hypogonadism is suspected, See **Pituitary (HD-19)** in the Head Imaging Guidelines
- Functional MRI or PET studies are not medically necessary for this indication.
- Priapism
  - Penile Doppler Ultrasound (CPT® 93980) if non-ishemic priapism is suspected
  - MRI likely does not have a role in the initial diagnosis of priapism given the time sensitive nature of diagnosis and management
  - In patients with persistent non-ischemic priapism where an embolization may be necessary CTA (CPT® 72191) or MRA Pelvis (CPT® 72198)
  - Penial Doppler Ultrasound (CPT® 93980) post procedure for ischemic priapism
  - If patient has priapism > 24-48 hours or refractory to treatment, MRI Pelvis without and with contrast (CPT® 72197) or MRI Pelvis without contrast (CPT® 72195) may be indicated

Evidence Discussion (PV-17)

- Erectile dysfunction (ED) may utilize penile Doppler ultrasound to assess penile vasculature. Ultrasound has the advantages of being able to provide robust information about both cavernous arterial inflow and the veno-occlusive capacity of the penis, is readily available, minimally invasive and tolerated well by patients. Advanced imaging with CTA of the pelvis with contrast may be indicated if large vessel vascular insufficiency is suspected. A penile duplex ultrasound may be utilized in the workup of Peyronie's disease.
- Advanced imaging for ED or Peyronie's disease with either PET or functional MRI is considered investigational.
- A penile Doppler ultrasound may be utilized for workup of non-ischemic priapism or post procedure for ischemic priapism. The sensitivity of Doppler ultrasound in localizing an anterior-cavernosal fistula is approximately 100%. If embolization is planned, CTA or MRA of the pelvis may be indicated.

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References (PV-17)

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1. Nehra A, Alterowitz R, Culkin DJ, et al. Peyronie's Disease: AUA Guideline. *Journal of Urology*. 2015;194(3):745-753. doi:10.1016/j.juro.2015.05.098
2. Sikka SC, Hellstrom WJ, Brock G, Morales AM. Standardization of Vascular Assessment of Erectile Dysfunction. *The Journal of Sexual Medicine*. 2013;10(1):120-129. doi:10.1111/j.1743-6109.2012.02825.x
3. White C, Gulati M, Gomes A, Rajfer J, Raman S. Pre-embolization evaluation of high-flow priapism: magnetic resonance angiography of the penis.

   Abdom Imaging. 2013;38(3):588-97. doi: 10.1007/s00261-012-9936-9.
4. Arrichiello A, Angileri SA, Buccimazza G, et. al. Interventional radiology management of high flow priapism: review of the literature. *Acta Biomed*. 2020;91(10-S):e2020010. doi:10.23750/abm.v91i10-S.10233.
5. Bivalacqua TJ, Allen BK, Brock GB, et al. The diagnosis and management of recurrent ischemic priapism, priapism in sickle cell patients, and non-ischemic priapism: an AUA/SMSNA guideline.*J Urol*. 2022;208(1):43-52.
6. Muneer A, Alnajjar HM, Ralph D. Recent advances in the management of priapism. F1000Res. 2018;7:37. Published 2018 Jan 10. doi:10.12688/f1000research. 12828.
7. Burnett AL, Nehra A, Breau RH, et al. Erectile Dysfunction: AUA Guideline [published correction appears in J Urol. 2022 Mar;207(3):743]. J Urol. 2018;200(3):633-641. doi:10.1016/j.juro.2018.05.004
8. Varela CG, Yeguas LAM, Rodríguez IC, Vila MDD. Penile Doppler Ultrasound for Erectile Dysfunction: Technique and Interpretation. AJR Am J Roentgenol. 2020;214(5):1112-1121. doi:10.2214/AJR.19.22141

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Penis–Soft Tissue Mass (PV-18)

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Penis-Soft Tissue Mass (PV-18.1)

PV.PM.0018.1.A
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- Penile ultrasound (CPT® 76857) for initial evaluation soft-tissue lesions of the penis, Duplex (Doppler) scan CPT® 93975 complete; CPT® 93976 limited) may be approved as an add-on.
- If primary penile cancer is suspected, biopsy is indicated
  - For further workup of biopsy confirmed penile cancer see **Cancers of External Genitalia – Initial Work-up/Staging (ONC-24.6)** in the Oncology Imaging Guidelines.
- Peyronie's Disease
  - Ultrasound (CPT® 76857) recommended
  - MRI Pelvis without and with contrast (CPT® 72197) if ultrasound is equivocal and surgery or injection therapy is being contemplated

Evidence Discussion (PV-18)

- Soft tissue lesions of the penis can be evaluated with penile ultrasound with doppler imaging as an initial evaluation. Ultrasound allows a readily available, non-invasive option for accurate assessment of the vascular and structural features of the penis while avoiding ionizing radiation. Advanced imaging with CT abdomen and pelvis and/or lymphoscintigraphy or SPECT/CT may be indicated for biopsy proven cancer depending on the stage, however is not necessary for the initial workup of a penile mass.
- Peyronie's disease can be initially assessed utilizing ultrasonography. Advanced imaging with MR can be performed after equivocal ultrasound if necessary prior to surgical intervention or injection therapy.

References (PV-18)

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1. Chipollini J, De la Rosa AH, Azizi M, Shayegan B, Zorn KC, Spiess PE. Patient presentation, differential diagnosis, and management of penile lesions. *Can Urol Assoc J*. 2019;13(2 Suppl 1):S2–S8. doi:10.5489/cuaj.5712
2. Rocher L, Glas L, Cluzel G, Ifergan J, Bellin M. Imaging tumours of the penis. *Diagnostic and Interventional Imaging*. 2012;93(4):319-328. doi:10.1016/j.diii.2012.01.020
3. Kirkham A. MRI of the penis. *The British Journal of Radiology*. 2012;85(special_issue_1). doi:10.1259/bjr/63301362
4. Bertolotto M, Pavlica P, Serafini G, Quaia E, Zappetti R. Painful Penile Induration: Imaging Findings and Management. *RadioGraphics*. 2009;29(2):477-493. doi:10.1148/rg.292085117
5. Prando D. New Sonographic Aspects of Peyronie Disease. *Journal of Ultrasound in Medicine*. 2009;28(2):217-232. doi:10.7863/jum.2009.28.2.217
6. Bilgutay AN, Pastuszak AW. Peyronie's Disease: A Review of Etiology, Diagnosis, and Management. *Current Sexual Health Reports*. 2015;7(2):117-131. doi:10.1007/s11930-015-0045-y

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Male Pelvic Disorders (PV-19)

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Male Pelvic Disorders (PV-19.1)

PV.PE.0019.1.A
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- Prostate
  - Prostate Disorders
    - Suspected Benign Prostatic Hypertrophy with obstructive voiding symptoms can undergo:
      - Transrectal ultrasound (CPT® 76872) or Pelvis transabdominal ultrasound (bladder and prostate [CPT® 76856 or CPT® 76857])
    - Prostatitis with urinary retention or suspected abscess can undergo any of the following imaging studies:
      - Transrectal ultrasound (CPT® 76872) or Pelvis transabdominal ultrasound (bladder and prostate [CPT® 76856 or CPT® 76857])
      - CT Pelvis with contrast (CPT® 72193) or MRI Pelvis without contrast (CPT® 72195) or with and without contrast (CPT® 72197) if ultrasound is equivocal for abscess or mass
  - Prostate Artery Embolization (PAE)
    - MRA Pelvis (CPT® 72198) or CTA Pelvis (CPT® 72191) is indicated for evaluation of the pelvic vasculature if:
      - Prostate artery embolization is planned
- Testicular
  - Hematospermia, transrectal ultrasound (TRUS) (CPT® 76872) can be the initial imaging study in all cases.
    - MRI Pelvis without contrast (CPT® 72195) or MRI Pelvis without and with contrast (CPT® 72197) to evaluate:
      - Suspected hemorrhage within the seminal vesicles
      - Radiation injury, neoplasia
      - Failure of conservative treatment for 2 weeks
      - Abnormal findings on Transrectal ultrasound
- Rectal
  - Proctalgia Syndromes
    - Prior to advanced imaging, the evaluation of rectal/perineal pain should include:
      - Digital rectal examination (assess for mass, prostate, fissures, hemorrhoids, etc.)

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        - Recent flexible sigmoidoscopy or colonoscopy subsequent to the start of reported symptoms to exclude inflammatory conditions or malignancy
    - Endoanal ultrasound (CPT® 76872), MRI Pelvis without and with contrast (CPT® 72197), or CT Pelvis with contrast (CPT® 72193) are appropriate after the above studies have been performed or if laboratory or clinical information suggest infection, abscess, or inflammation
- Bladder
  - Work-up of interstitial cystitis/bladder pain syndrome (IC/BPS) may include history, physical exam, laboratory exam (urinalysis and urine culture), cystoscopy, and measurement of post void residual urine by bladder catheterization
    - Pelvic ultrasound (CPT® 76856 or CPT® 76857)
      - CT Pelvis with contrast (CPT® 72193) if ultrasound is equivocal for complicated interstitial cystitis/bladder pain syndrome (when ordered by specialist or any provider in consultation with the specialist)

Background and Supporting Information

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

Evidence Discussion (PV-19)

- For patients with lower urinary tract symptoms suspected to be caused by Benign Prostatic Hypertrophy ultrasound is the modality of choice for evaluation. It allows for assessment of bladder volume and post-void residual as well as intravesical prostatic protrusion. Ultrasound is advantageous as it is readily available, effective, and free of ionizing radiation.
- Prostate Artery Embolization is an excepted treatment for the management of lower urinary tract symptoms according to the American Urological Association. Imaging is indicated for further delineation of the pelvic vasculature to aid in preprocedure surgical planning. The accuracy of CTA to identify the Prostate artery has been shown to approximately 97%. MRI angiography has been shown to identify the prostate artery in 76% of cases, has been helpful in identifying malignancy when suspected and does not carry the risk of radiation exposure.
- Transrectal ultrasound is supported for the initial diagnostic imaging for hematospermia. Ultrasound has high sensitivity for detecting abnormalities of the prostate and seminal tract, demonstrating abnormalities in 82-95% of men with hematospermia. Ultrasound is advantageous as it is readily available, effective, and free of ionizing radiation. It also allows for simultaneous aspiration or biopsy of any lesions detected. MRI is a useful adjunct to ultrasound imaging. CT has limited value in the evaluation of hematospermia due to its limited ability to differentiate structural changes of the prostate and seminal tract and its lack of soft-tissue contrast.

- In patients with suspected Proctalgia initial evaluation should include a through exam, including digital rectal exam and direct visualization with sigmoidoscopy or colonoscopy to exclude other causes of rectal pain. Clinical history and normal digital rectal exam is often sufficient to make a diagnosis of Proctalgia. If infection, abscess or inflammation is suspected imaging is indicated.
- The work up for interstitial cystitis/bladder pain syndrome (IC/BPS) should include a careful history, physical and laboratory examination. Additional testing such as radiologic imaging should be undertaken only when it will alter the treatment approach. Ultrasound may be useful for adjunct diagnosis and has the advantages of being widely available and without ionizing radiation. Additional testing with CT may be appropriate when ultrasound results are inconclusive but bears the risk of ionizing radiation.

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References (PV-19)

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1. Nickel JC. Prostatitis. *Canadian Urological Association Journal*. 2011:306-315. doi:10.5489/cuaj.11211
2. Hosseinzadeh K, Oto A, Allen BC, et al. ACR Appropriateness Criteria® Hematospermia. *Journal of the American College of Radiology*. 2017;14(5). doi:10.1016/j.jacr.2017.02.023
3. Zhao H, Luo J, Wang D, et al. The Value of Transrectal Ultrasound in the Diagnosis of Hematospermia in a Large Cohort of Patients. *Journal of Andrology*. 2011;33(5):897-903. doi:10.2164/jandrol.111.013318
4. Macdonald A, Burrell S. Infrequently Performed Studies in Nuclear Medicine: Part 2. *Journal of Nuclear Medicine Technology*. 2009;37(1):1-13. doi:10.2967/jnmt.108.057851
5. Hartman MS, Leyendecker JR, Friedman B, et al. ACR Appropriateness Criteria® Acute Onset of Scrotal Pain–Without Trauma, Without Antecedent Mass. Last review date: 2019. https://acsearch.acr.org/docs/69363/Narrative/
6. Friedman B, Leyendecker JR, Blaufox MD, et al. ACR Appropriateness Criteria® Lower Urinary Tract Symptoms: Suspicion of Benign Prostatic Hyperplasia Last review date: 2019. https://acsearch.acr.org/docs/69368/Narrative/
7. Wald A, Bharucha AE, Cosman BC, Whitehead WE. ACG Clinical Guideline: Management of Benign Anorectal Disorders. *American Journal of Gastroenterology*. 2014;109(8):1141-1157. doi:10.1038/ajg.2014.190
8. Kraemer S, Watson V, Peters KM. The Evaluation and Management of Interstitial Cystitis/Bladder Pain Syndrome. *EMJ Urol* 2019;7(1):75-82
9. Foster HE, Barry MJ, Dahm P et al: Surgical management of lower urinary tract symptoms attributed to benign prostatic hyperplasia: AUA Guideline. *J Urol* 2018, 200:612
10. Parsons JK, Dahm P, Kohler TS et al: Surgical management of lower urinary tract symptoms attributed to benign prostatic hyperplasia: AUA Guideline amendment 2020. *J Urol* 2020; 204: 799
11. Sandhu JS, Bixler BR, Dahm P, et al. Management of lower urinary tract symptoms attributed to benign prostatic hyperplasia (BPH): AUA Guideline amendment 2023. J Urol. 2023;10.1097/JU.0000000000003698. https://doi.org/10.1097/JU.0000000000003698
12. Dias US Jr, de Moura MRL, Viana PCC, de Assis AM, Marcelino ASZ, Moreira AM, Leite CC, Cerri GG, Carnevale FC, Horvat N. Prostatic Artery Embolization: Indications, Preparation, Techniques, Imaging Evaluation, Reporting, and Complications. Radiographics. 2021 Sep-Oct;41(5):1509-1530. doi: 10.1148/rg.2021200144. Epub 2021 Aug 20. PMID: 34415807; PMCID: PMC9394104
13. Vibhor Wadhwa, Timothy D McClure, Role of Imaging in Prostate Artery Embolization, Seminars in Roentgenology, Volume 56, Issue 4, 2021, Pages 410-415, ISSN 0037-198X, https://doi.org/10.1053/j.ro.2021.08.007.
14. Rostambeigi N, Golzarian J, Little MW. Updates on Preprocedural Evaluation and Patient Selection for Prostatic Artery Embolization. Semin Intervent Radiol. 2022 Dec 20;39(6):547-554. doi: 10.1055/s-0042-1760274. PMID: 36561799; PMCID: PMC9767769.
15. Carrington, E.V., Popa, SL. & Chiarioni, G. Proctalgia Syndromes: Update in Diagnosis and Management. Curr Gastroenterol Rep 22, 35 (2020). https://doi.org/10.1007/s11894-020-00768-0
16. Clemens JQ, Erickson DR, Varela NP, Lai HH. Diagnosis and Treatment of Interstitial Cystitis/Bladder Pain Syndrome. J Urol. 2022;208(1):34-42. doi:10.1097/JU.0000000000002756
17. Homma Y, Akiyama Y, Tomoe H, et al. Clinical guidelines for interstitial cystitis/bladder pain syndrome. Int J Urol. 2020;27(7):578-589. doi:10.1111/iju.14234

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Scrotal Pathology (PV-20)

Guideline Page

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Scrotal Pathology (PV-20.1)

PV.SP.0020.1.A
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- Scrotal ultrasound (CPT® 76870) and/or Duplex (Doppler) ultrasound (CPT® 93975 or CPT® 93976) of the scrotum for initial evaluation of scrotal pain or mass
  - MRI Pelvis without and with contrast (CPT® 72197) or Tc-99m scrotal scintigraphy (CPT® 78761) if ultrasound is inconclusive.[1,2]
- Scrotal ultrasound (CPT® 76870), MRI Pelvis without and with contrast (CPT® 72197), or CT Pelvis with contrast (CPT® 72193) for cryptorchidism/undescended testis in the adult.
- Scrotal ultrasound and/or Duplex (Doppler) ultrasound (CPT® 76870 and/or CPT® 93975 or CPT® 93976) of the scrotum with color flow mapping in supine and upright positions to assess venous reflux into plexus pampiniformis if varicocele suspected (for example, in inguinal hernia evaluation)
  - CT Abdomen and Pelvis with contrast (CPT® 74177) for right-sided varicocele, when there is suspicion for intra-abdominal pathology

Background and Supporting Information

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

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Paratesticular and spermatic cord masses (PV-20.2)

PV.SP.0020.2.A

v1.0.2025

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

Testicular Microlithiasis (PV-20.3)

PV.SP.0020.3.A
v1.0.2025

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

References (PV-20)

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1. Gerena M, Allen BC, Turkbey, et al. ACR Appropriateness Criteria® Acute Onset of Scrotal Pain–Without Trauma, Without Antecedent Mass. Last review date: 2024. https://acsearch.acr.org/docs/69363/Narrative/
2. Kim W, Rosen MA, Langer JE, Banner MP, Siegelman ES, Ramchandani P. US–MR Imaging Correlation in Pathologic Conditions of the Scrotum. *RadioGraphics*. 2007;27(5):1239-1253. doi:10.1148/rg.275065172
3. Wolfman DJ, Marko J, Gould CF, Sesterhenn IA, Lattin GE. Mesenchymal Extratesticular Tumors and Tumorlike Conditions:From the Radiologic Pathology Archives. *RadioGraphics*. 2015;35(7):1943-1954. doi:10.1148/rg.2015150179
4. Tan IB, Ang KK, Ching BC, Mohan C, Toh CK, Tan MH. Testicular microlithiasis predicts concurrent testicular germ cell tumors and intratubular germ cell neoplasia of unclassified type in adults. *Cancer*. 2010;116(19):4520-4532. doi:10.1002/cncr.25231
5. Decastro BJ, Peterson AC, Costabile RA. A 5-Year Followup Study of Asymptomatic Men With Testicular Microlithiasis. *The Journal of Urology*. 2008;179(4):1420-1423. doi:10.1016/j.juro.2007.11.080
6. Winter TC, Kim B, Lowrance WT, Middleton WD. Testicular Microlithiasis: What Should You Recommend? *American Journal of Roentgenology*. 2016;206(6):1164-1169. doi:10.2214/ajr.15.15226
7. Richenberg J, Belfield J, Ramchandani P, et al. Testicular microlithiasis imaging and follow-up: guidelines of the ESUR scrotal imaging subcommittee. *European Radiology*. 2014;25(2):323-330. doi:10.1007/s00330-014-3437-x
8. Richenberg J, Brejt N. Testicular microlithiasis: is there a need for surveillance in the absence of other risk factors? *European Radiology*. 2012;22(11):2540-2546. doi:10.1007/s00330-012-2520-4
9. AIUM Practice Guideline for the Performance of Scrotal Ultrasound Examinations. *Journal of Ultrasound in Medicine*. 2015;34(8):1-5. doi:10.7863/ultra.34.8.15.13.0006
10. Parenti GC, Feletti F, Carnevale A, Uccelli L, Giganti M. Imaging of the scrotum: beyond sonography. *Insights Imaging*. 2018;9(2):137-148. doi:10.1007/s13244-017-0592-z.11
11. Stephenson A, Eggener SE, Bass EB, et al. Diagnosis and Treatment of Early Stage Testicular Cancer: AUA Guideline. *Journal of Urology*. 2019;202(2):272-281. doi:10.1097/ju.0000000000000318
12. Hodler J, et al. (eds.), Diseases of the Abdomen and Pelvis 2018–2021, IDKD Springer Series, https://doi.org/10.1007/978-3-319-75019-4_24

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Fistulae, Abscess, and Pilonidal Cyst (PV-21)

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Fistula in Ano (PV-21.1)

PV.PA.0021.1.A
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- MRI Pelvis without and with contrast (CPT® 72197) is the preferred study.
  - If MRI cannot be performed, endoscopic ultrasound is superior, and thus preferential, to CT imaging.
  - CT Pelvis with contrast (CPT® 72193) is an inferior study to either of the above (accuracy of endoscopic ultrasound vs. CT for perianal fistula is 82% vs. 24%) and its use should be limited only to those circumstances in which MRI and endoscopic ultrasound cannot be performed.

Evidence Discussion (PV-21.1)

- Anorectal fistulas most commonly arise from abscesses that originate in the anal crypts (90%). Physical exam will frequently identify these but advanced imaging is often needed to determine the course of the fistulous tract, its relationship with the sphincteric musculature and associated infection/abscess. Because of its superior resolution, MRI is the preferred modality, followed by endoscopic ultrasound and then CT.
- Non-iatrogenic anal fistula located in atypical positions (lateral) suggest the possibility of Crohn's disease. See IBD – Perirectal/Perianal disease (AB-23.3).

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Abscess (PV-21.2)

PV.PA.0021.2.A
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- MRI Pelvis without and with contrast (CPT® 72197) is the preferred study
  - CT Pelvis with contrast (CPT® 72193) is supported as an alternative study if desired.
- For the evaluation of Perianal and Perirectal Disease related to Crohn's Disease, See **Perirectal/Perianal Disease (AB-23.3)** in the Abdomen Imaging Guidelines.

Evidence Discussion (PV-21.2)

- Pelvic infections can take the form of intraperitoneal abscesses or perineal wall infections.
- Refer to Abdominal Sepsis (AB-3-1) for intraabdominal pelvic abscess.
- History and physical can usually identify perineal (perirectal and perianal) abscesses. Due to a high rate of recurrence due to associated fistulous tracts, advanced imaging with MRI (preferred because of its improved resolution), endorectal ultrasound or CT scan. Primary treatment is surgical drainage.

Pelvic Fistula (PV-21.3)

PV.PA.0021.3.A
v1.0.2025

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

Background and Supporting Information

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

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Evidence Discussion (PV-21.3)

- MRI has been established as a method of delineating vaginal fistulas. This is secondary to its excellent soft tissue resolution, allowing identification of acute inflammatory changes, post-surgical fibrosis, neoplastic tissue and abscesses. It also has the benefit of lacking ionizing radiation, but may have limited access as compared with CT. MRI is also contraindicated by the presence of metallic foreign body or MRI-incompatible devices, such as some pacemakers. Studies have shown a positive predictive value of 92% for delineation of anorectal vaginal fistulas.
- CT can also be utilized in the visualization of fistulas. It does have lower contrast resolution than MRI and does carry the risk of ionizing radiation. It may be beneficial in emergent situations given the wide availability or in situations where an MRI is contraindicated. CT-urography/cystography is also a mainstay in evaluation of the urinary tract and can be utilized to evaluate urinary vaginal fistulas.

Pilonidal Cyst (PV-21.4)

PV.PA.0021.4.A
v1.0.2025

- Advanced imaging is not indicated for pilonidal cyst disease[9].
- For suspected osteomyelitis, see: **Infection/Osteomyelitis (MS-9)** in the Musculoskeletal Imaging Guidelines
- For abdominal fistulae, see: **Fistulae (AB-48)** in the Abdomen Imaging Guidelines
- For suspected spinal dysraphism, see: **Cutaneous Indications to Suspect Occult Spinal Dysrpahism (PEDSP-4.2)** in the Pediatric Spine Imaging Guidelines

Evidence Discussion (PV-21.4)

- Pilonidal cysts most frequently arise in the natal cleft, the groove between the buttocks overlying the sacral area. Asymptomatic disease usually does not require any treatment. Acute and chronic infections can be evaluated sufficiently with history and physical alone. Advanced imaging is limited to concern for complicated disease (See **Infection/Osteomyelitis - MS-9.1**).

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References (PV-21)

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1. Ziech M, Felt–Bersma R, Stoker J. Imaging of Perianal Fistulas. *Clinical Gastroenterology and Hepatology*. 2009;7(10):1037-1045. doi:10.1016/j.cgh.2009.06.030
2. Gaertner WB, Burgess PL, Davids JS, et al. The American Society of Colon and Rectal Surgeons Clinical Practice Guidelines for the Management of Anorectal Abscess, Fistula-in-Ano, and Rectovaginal Fistula.Dis Colon Rectum. 2022;65(8):964-985. doi:10.1097/DCR.0000000000002473
3. Tonolini M. Elucidating vaginal fistulas on CT and MRI. *Insights into Imaging*. 2019;10(1). doi:10.1186/s13244-019-0812-9
4. VanBuren WM, Lightner AL, Kim ST, et al. Imaging and Surgical Management of Anorectal Vaginal Fistulas. *RadioGraphics*. 2018;38(5):1385-1401. doi:10.1148/rg.2018170167
5. Hancock KJ, Gajjar AH. Anorectal Disorders. *Obstetrics & Gynecology*. 2020;136(3):642-642. doi:10.1097/aog.0000000000004047
6. Levy AD, Liu PS, Kim DH, et al. ACR Appropriateness Criteria® Anorectal Disease. *Journal of the American College of Radiology*. 2021;18(11):S268-S282. doi:10.1016/j.jacr.2021.08.009
7. Fecal incontinence. ACOG Practice Bulletin No. 210. *Obstetrics & Gynecology*. 2019;133(4):e260-e273. (reaffirmed 2023) doi:10.1097/aog.0000000000003187
8. Berman L. Utility of magnetic resonance imaging in anorectal disease. *World Journal of Gastroenterology*. 2007;13(23):3153. doi:10.3748/wjg.v13.i23.3153
9. Johnson EK, Vogel JD, Cowan ML, Feingold DL, Steele SR. The American Society of Colon and Rectal Surgeons' clinical practice guidelines for the management of pilonidal disease.

   Dis Colon Rectum. 2019;62:146-157. doi:10.1097/DCR.0000000000001237.
10. Rogers, Rebecca G. MD; Jeppson, Peter C. MD. Current Diagnosis and Management of Pelvic Fistulae in Women. Obstetrics and Gynecology 128(3):p 635-650, September 2016. doi:10.1097/ACOG.0000000000001519
11. Vogel JD, Johnson EK, Morris AM, et al. Clinical Practice Guideline for the Management of Anorectal Abscess, Fistula-in-Ano, and Rectovaginal Fistula. Diseases of the Colon & Rectum. 2016;59(12):1117- 1133
12. Abcarian H. Anorectal infection: abscess-fistula. Clin Colon Rectal Surg 2011; 24:14.
13. Doll D, Friederichs J, Boulesteix AL, et al. Surgery for asymptomatic pilonidal sinus disease. Int J Colorectal Dis 2008; 23:839.

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

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Urinary Incontinence – Initial Imaging (PV-22.1)

PV.IN.0022.1.A
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- 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
  - Neurogenic Incontinence
    - Ultrasound urinary tract (CPT® 76770 or CPT® 76775)

Background and Supporting Information

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

Evidence Discussion (PV-22.1)

- The workup of urinary incontinence involves a thorough history and physical examination. For incontinence due to non-neurogenic causes, advanced imaging is rarely necessary in the initial evaluation. Assessment of the urine post void residual may be completed either with bladder ultrasound or urethral catheterization.
- Baseline imaging should be obtained in the evaluation of neurogenic urinary incontinence with renal bladder ultrasound.

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Urinary Incontinence – Further Imaging (PV-22.2)

PV.IN.0022.2.A
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- CT Abdomen and Pelvis, contrast as requested, or CT Pelvis, contrast as requested, for any of the following:
  - Abnormality on ultrasound that requires further evaluation
  - Complicated incontinence
    - Failed conservative treatment
    - Pain or dysuria
    - Hematuria
    - Recurrent infection
    - Previous radical pelvic surgery
    - Suspected fistula
    - Suspected mass
    - Previous pelvic or prostate irradiation
  - 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
- For neurogenic urinary incontinence See **Red Flag Indications (SP-1.2)** and **Myelopathy (SP-7.1)** in the Spine Imaging Guidelines and **Dementia (HD-8.1)** and **Normal Pressure Hydrocephalus (NPH) (HD-8.4)** in the Head Imaging Guidelines.

Evidence Discussion (PV-22.2

- Urinary incontinence that has failed a trial of conservative treatment may require advanced imaging with CT of the abdomen and/or pelvis with or without contrast. Advanced imaging may also be ordered for pre-operative planning if requested by the surgeon or to follow up on an abnormality noted on previous ultrasound.
- Other clinical scenarios where advanced imaging may be indicated are incontinence occurring concomitantly with abdominal or pelvic pain, dysuria or hematuria, or in the setting of recurrent urinary tract infections. Incontinence in the setting of previous radical pelvic surgery or radiation may also require advanced imaging.
- If there is suspicion of a fistula, mass, or ectopic ureters (and ultrasound is non-diagnostic), advanced imaging with CT may be indicated.

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Pelvic Prolapse (PV-22.3)

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

Evidence Discussion (PV-22.3)

- The mainstay of evaluation of pelvic organ prolapse remains clinical pelvic examination. This allows for direct evaluation of prolapse and calculation prolapse quantification.
- Translabial, transperineal or transvaginal ultrasound have shown correlation with. Ultrasound also allows for real-time evaluation, has wide availability, fast access, and lack of ionizing radiation exposure.
- MRI has been shown to have excellent soft tissue delineation. It circumstances were clinical exam and ultrasound are equivocal, MRI may provide additional information for conditions such as enterocele, sigmoidocele and intussusception.
- Complications related to mesh and graft placement in pelvic floor surgery are diverse in nature. Work up for suspected complication is complex and may include a

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diverse range of diagnostic procedures such as radiologic imaging, cystoscopy, and colonoscopy. Surgical meshes have variable visibility. Given the varied nature of this these complications modality of imaging should be tailored to suspected complication.

- A known rare complication of sacrocolpopexy is sacral osteomyelitis. In cases of suspected osteomyelitis, MRI is the preferred imaging as it has a very high sensitivity for detection infection, especially in early stages.

Fecal Incontinence (PV-22.4)

PV.IN.0022.4.A
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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 (manometry, sensation, volume tolerance, and compliance)
  - 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 a been failure of a recent trial of conservative management AND
    - Surgery is being considered

Background and Supporting Information

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

However, guidelines adopted by the American Society of Colon and Rectal Surgeons note that “Endoanal ultrasound is a useful and sensitive tool in the evaluation of patients with FI (fecal incontinence), especially when there is a history of vaginal delivery or anorectal surgery. Ultrasound can reliably identify internal and external sphincter defects that may be associated with sphincter dysfunction.” In addition, the guidelines note “Other modalities (e.g., 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.”

Evidence Discussion (PV-22.4)

- According to the American College of Gastroenterology, the American Society of Colon and Rectal Surgeons and the American College of Obstetrics and Gynecology,

complete history and physical exam is essential for the evaluation of patient with fecal incontinence.

- For patients that fail conservative measures, ano-rectal manometry and rectal balloon expulsion testing should be performed. This may help to guide additional treatment and diagnostic testing.
- Endoanal ultrasound (EAUS) can be considered in individuals with suspected sphincter injury. Ultrasound is widely available and well tolerated, however it is operator-dependent. EAUS shows very good interobserver agreement in the diagnosis of sphincter defects and the measurement of the internal anal sphincter.
- MRI has also emerged as an imaging modality for evaluation of fecal incontinence. While EAUS is superior for the evaluation of the internal anal sphincter, MRI shows better distinction between fat and muscle in the evaluation of the external anal sphincter. MRI is limited by the fact that it is not as readily available and is unsuitable for patients with limiting conditions such as metal implants and claustrophobia. MRI defecography also may play a role in the evaluation of fecal incontinence as it allows for insight into important functional disorders related to defecation.

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References (PV-22)

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1. Wald A, Bharucha AE, Limketkai, B et al. ACG Clinical Guideline: Management of Benign Anorectal Disorders. *American Journal of Gastroenterology*. 2021;116(10). P 1987-2008.>
2. Practice Bulletin No. 155. Urinary Incontinence in Women. *Obstetrics & Gynecology*. 2015;126(5). doi:10.1097/aog.0000000000001148 (Reaffirmed 2022)
3. Practice Bulletin No. 214. Pelvic Organ Prolapse. *Obstetrics & Gynecology*. 2019 (Reaffirmed 2021);134:126-42. doi:10.1097/aog.0000000000003519
4. Committee Opinion No. 694. Management of Mesh and Graft Complications in Gynecologic Surgery. *Obstetrics & Gynecology*. 2017 (Reaffirmed 2021);129(4). doi:10.1097/aog.0000000000002022
5. Bordeianou, L. G., Thorsen, A. J., Keller, D. S., Hawkins, A. T., Messick, C., Oliveira, L., Feingold, D. L., Lightner, A. L., & Paquette, I. M. (2023).The American Society of Colon and Rectal Surgeons Clinical Practice Guidelines for the Management of Fecal Incontinence.Diseases of the colon and rectum,66(5), 647-661.https://doi.org/10.1097/DCR.0000000000002776.
6. Chung DE, Yurteri-Kaplan LA, Asatiani T, Brennand EA, Wang A, Grimes CL. Female Pelvic Medicine & Reconstructive Surgery (FPMRS) challenges on behalf of the collaborative research in pelvic surgery consortium (CoRPS): managing complicated cases series 2: management of urinary incontinence in a neurogenic patient. *International Urogynecology Journal*. 2018;30(2):193-196. doi:10.1007/s00192-018-3806-0
7. Tan C, Geng J, Tang J, Yang X. The relationship between obstructed defecation and true rectocele in patients with pelvic organ prolapse. *Scientific Reports*. 2020;10(1). doi:10.1038/s41598-020-62376-2
8. Volløyhaug I, Rojas RG, Mørkved S, Salvesen KÅ. Comparison of transperineal ultrasound with POP-Q for assessing symptoms of prolapse. *International Urogynecology Journal*. 2018;30(4):595-602. doi:10.1007/s00192-018-3722-3
9. Committee Opinion No. 603: Evaluation of uncomplicated stress urinary incontinence in women before surgical treatment.Obstet Gynecol. 2014;123(6):1403-1407. Reaffirmed 2020. doi:10.1097/01.AOG.0000450759.34453.31
10. American College of Obstetricians and Gynecologists. ACOG practice bulletin no. 210: fecal incontinence. *Obstetrics & gynecology*. 2019 (Reaffirmed 2023); Apr;133(4):e260-73. doi: 10.1097/AOG.
11. Larouche M, Belzile E, Geoffrion R. Surgical Management of Symptomatic Apical Pelvic Organ Prolapse. *Obstetrics & Gynecology*. 2021;137(6):1061-1073. doi:10.1097/aog.0000000000004393
12. Gavlin A, Kierans AS, Chen J, Song C, Guniganti P, Mazzariol FS. Imaging and Treatment of Complications of Abdominal and Pelvic Mesh Repair. *RadioGraphics*. 2020;40(2):432-453. doi:10.1148/rg.2020190106
13. Carberry CL, Tulikangas BM, Ridgeway BM, et al. American Urogynecologic Society Best Practice Statement: Evaluation and Counseling of Patients with Pelvic Organ Prolapse. Female Pelvic Medicine and Reconstructive Surgery 23(5):p 281-287, 9/10 2017. (Reaffirmed 2020) doi:10.1097/SPV.0000000000000424
14. Evaluation of uncomplicated stress urinary incontinence in women before surgical treatment. Committee Opinion No. 603. The American College of Obstetricians and Gynecologists. Obstet Gynecol 2014;123:1403–7 (Reaffirmed 2020)
15. Barbier H, Carberry CL, Karjalainen PK, et al. International Urogynecology consultation chapter 2 committee 3: the clinical evaluation of pelvic organ prolapse including investigations into associated morbidity/pelvic floor dysfunction. Int Urogynecol J. 2023;34(11):2657-2688. doi:10.1007/s00192-023-05629-8
16. Sbeit W, Khoury T, Mari A. Diagnostic approach to faecal incontinence: What test and when to perform?. World J Gastroenterol. 2021;27(15):1553-1562. doi:10.3748/wjg.v27.i15.1553

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Patent Urachus (PV-23)

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Patent Urachus (PV-23.1)

PV.UR.0023.1.A

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

Evidence Discussion (PV-23)

- A patent urachus (connecting bladder to umbilicus) can manifest as redness around or drainage from the umbilicus, abdominal pain, or urinary tract infections.
- If suspected, ultrasound is indicated as the initial evaluation as it can be diagnostic without exposing the patient to radiation.
- Advanced imaging of the pelvis is indicated for inconclusive ultrasound or for surgical planning.

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References (PV-23)

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1. Villavicencio CP, Adam SZ, Nikolaidis P, Yaghmai V, Miller FH. Imaging of the Urachus: Anomalies, Complications, and Mimics. *RadioGraphics*. 2016;36(7):2049-2063. doi:10.1148/rg.2016160062
2. Buddha S, Menias CO, Katabathina VS. Imaging of urachal anomalies. *Abdominal Radiology*. 2019;44(12):3978-3989. doi:10.1007/s00261-019-02205-x
3. Das JP, Vargas, HB, Lee A, Hutchingson B, et al. The urachus revisited: multimodal imaging of benign and malignant urachal pathology. BR J Radiol. 2020 Jun; 93 (1110): 20190118.
4. Yacoub JH, Clark JA, PAal EE, Manning MA. Approach to Cystic Lesions in the Abdomen and Pelvis, with Radiologic-Pathologic Correlation. *Radiographics*. Sep-Oct 2021; 41 (5): 1368-1386
5. Berrocal T, López-Pereira P, Arjonilla A, Gutiérrez J. Anomalies of the Distal Ureter, Bladder, and Urethra in Children: Embryologic, Radiologic, and Pathologic Features. RadioGraphics. 2002;22(5):1139-1164. doi:10.1148/radiographics.22.5.g02se101139
6. Little DC, Shah SR, Peter SDS, et al. Urachal anomalies in children: the vanishing relevance of the preoperative voiding cystourethrogram. Journal of Pediatric Surgery. 2005;40(12):1874-1876. doi:10.1016/j.jpedsurg.2005.08.029
7. Parada Villavicencio C, Adam SZ, Nikolaidis P, Yaghmai V, Miller FH. Imaging of the Urachus: Anomalies, Complications, and Mimics. Radiographics. 2016;36(7):2049-2063. doi:10.1148/rg.2016160062
8. West HC, Anton CG. Bladder and Urethra. In: Coley B, Saunders E, eds. Caffey's Pediatric Diagnostic Imaging. Philadelphia PA; 2019:1157-1166
9. Elder JS. Anomilies of the Bladder. In: Kliegman RM, St. Geme JW III, Blum NJ, Shah SS, Tasker RC, Wilson KM, eds. Nelson Textbook of Pediatrics, 21st ed. 2020:2810-2811.

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Bladder Mass (PV-24)

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Bladder Mass (PV-24.1)

PV.BL.0024.1.A
v1.0.2025

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

Background and Supporting Information

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

Evidence Discussion (PV-24.1)

- Symptoms of bladder mass may include hematuria, urgency or frequency of urination, urinary infection or urinary retention.
- Bladder masses may be found incidentally on initial imaging such as ultrasound, cystoscopy or KUB (Kidney, Ureter and Bladder X-ray).
- Suspected bladder stone may be further evaluated with CT pelvis if initial imaging is inconclusive or for surgical planning. CT has a higher sensitivity than ultrasound for bladder stones.
- Suspected bladder diverticuli can be further evaluated with CT pelvis.

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References (PV-24)

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1. Dighe MK, Bhargava P, Wright J. Urinary Bladder Masses. *Journal of Computer Assisted Tomography*. 2011;35(4):411-424. doi:10.1097/rct.0b013e31821c2e9d
2. Verma S, Rajesh A, Prasad SR, et al. Urinary Bladder Cancer: Role of MR Imaging. *RadioGraphics*. 2012;32(2):371-387. doi:10.1148/rg.322115125
3. Raman SP, Fishman EK. Bladder Malignancies on CT: The Underrated Role of CT in Diagnosis. *American Journal of Roentgenology*. 2014;203(2):347-354. doi:10.2214/ajr.13.12021
4. Shelmerdine SC, Lorenzo AJ, Gupta AA, Chavhan GB. Pearls and Pitfalls in Diagnosing Pediatric Urinary Bladder Masses. *RadioGraphics*. 2017;37(6):1872-1891. doi:10.1148/rg.2017170031
5. Hughes T, Ho HC, Pietropaolo A, Somani BK. Guideline of guidelines for kidney and bladder stones. Turk J Urol. 2020 Nov;46(Supp. 1):S104-S112. doi: 10.5152/tud.2020.20315. Epub 2020 Oct 9. PMID: 33052834; PMCID: PMC7731951.

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

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

PV.BT.0025.1.A
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- Abdominal and/or Pelvic ultrasound (CPT® 76700 and/or CPT® 76856) is supported if requested
- CT cystography (CT Pelvis without contrast CPT® 72192) is supported for suspected bladder injury
- CT Abdomen and Pelvis with OR with and without contrast (CPT® 74177 or CPT® 74178) if:
  - Suspected iatrogenic/operative injury OR
  - Blunt trauma and suspected bladder or ureteral injury with one or more of the following (See **Blunt Abdominal Trauma (AB-10.1)** in the Abdomen Imaging Guidelines):
    - Abdominal pain or tenderness
    - Pelvic or femur fracture
    - Hematocrit <30%
    - Hematuria
    - Non-examinable individual (intoxicated, less than fully conscious, Glasgow Coma Scale Score >13, etc.)
    - Evidence of abdominal wall trauma or seat-belt sign
    - Rapid deceleration injury

Background and Supporting Information

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

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

Evidence Discussion (PV-25)

- Ultrasound can performed for suspected ureteral and/or bladder trauma. It may aid in triage of injuries and may lead to immediate surgical intervention rather than additional imaging. However it has lower sensitivity compared to CT, particularly in genitourinary injury.
- For patients with suspected bladder injury retrograde cystography is appropriate. CT cystography has a reported 95-100% sensitivity and specificity for the diagnosis of

bladder rupture. It has the benefits of being widely available and accurate, but does have exposure to ionizing radiation.

- Those presenting with suspected ureteral injury CT of the abdomen and pelvis is appropriate for evaluation of the complete urinary tract. Imaging with contrast is preferred for evaluation of as it has higher sensitivity for detecting concurrent visceral organ and vascular injuries. Urogram is helpful in further evaluation of the ureters as it may show contrast extravasation from the ureter or partial or complete ureteral obstruction.

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References (PV-25)

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1. Ramchandani P, Buckler PM. Imaging of Genitourinary Trauma. *American Journal of Roentgenology*. 2009;192(6):1514-1523. doi:10.2214/ajr.09.2470
2. Morey AF, Broghammer JA, Hollowell CMP, McKibben MJ, Souter L. Urotrauma Guideline 2020: AUA Guideline. *Journal of Urology*. Published online October 14, 2020. doi:10.1097/ju.0000000000001408
3. Shyu JY, Khurana B, Soto JA, et al. ACR Appropriateness Criteria® Major Blunt Trauma. *Journal of the American College of Radiology*. 2020;17(5):S160-S174. doi:10.1016/j.jacr.2020.01.024
4. Chan DPN, Abujudeh HH, Cushing GL, Novelline RA. CT Cystography with Multiplanar Reformation for Suspected Bladder Rupture: Experience in 234 Cases. *American Journal of Roentgenology*. 2006;187(5):1296-1302. doi:10.2214/ajr.05.0971
5. Jansen JO, Yule SR, Loudon MA. Investigation of blunt abdominal trauma. *BMJ (Clinical research ed)*. 2008;336(7650):938-942. doi:10.1136/bmj.39534.686192.80

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Gender Affirmation Surgery; Pelvic (PV-26)

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Gender Affirmation Surgery; Pelvic (PV-26.1)

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

Background and Supporting Information

- Metoidioplasty-Metoidioplasty is a procedure using clitoral hypertrophy and clitoral release to form masculine-appearing external genitalia

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- Phalloplasty-Phalloplasty includes the creation of a neophallus using muscular flaps
- Vaginoplasty-Vaginoplasty refers to the surgical creation of a vulva and vaginal canal

Evidence Discussion (PV-26)

- Routine preoperative imaging is not supported for metoidioplasty or Vaginoplasty.
- CT angiography is indicated for preoperative evaluation for phalloplasty in order to map size, location and course of the vasculature. CTA has been found to have high accuracy in perforator detection (sensitivity of 96-100% and specificity of 95-100% in studies investigating abdominal perforators), short time for image acquisition and high reproducibility. It however does carry the risk of ionizing radiation and exposure to iodinated contrast.
- Doppler ultrasound allows for monitoring of vascular perfusion of the neophallus after phalloplasty. Ultrasound is readily available and does not carry risk of ionizing radiation.
- Expert opinion holds that CT would be indicated for postoperative complications of gender affirmation surgery. CT allows for fast and accurate identification of common postoperative complications such as abscess, hematoma and seroma. CT angiography aids in the diagnosis of arterial or venous thrombosis as well as identification of arterial bleeding in the setting of hemorrhage. CT does carry the risk of ionizing radiation and iodinated contrast allergy.
- MRI is the preferred modality for suspected fistula given its superior soft tissue delineation in these cases.

References (PV-26)

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1. Coleman E, Radix AE, Bouman WP, et al. Standards of Care for the Health of Transgender and Gender Diverse People, Version 8.Int J Transgend Health. 2022;23(Suppl 1):S1-S259. Published 2022 Sep 6. doi:10.1080/26895269.2022.2100644.
2. Hassan O, Sun D, Jha P. Imaging in Gender Affirmation Surgery. *Current Urology Reports*. 2021;22(2). doi:10.1007/s11934-020-01029-3
3. Doo FX, Khorsandi A, Avanessian B, Bowers M, Somwaru AS. Gender Affirmation Surgery: A Primer on Imaging Correlates for the Radiologist. *American Journal of Roentgenology*. 2019;213(6):1194-1203. doi:10.2214/ajr.19.21686
4. Stowell JT, Horowitz JM, Thomas S. Gender-affirming surgical techniques, complications, and imaging considerations for the abdominal radiologist. *Abdom Radiol (NY)*. 2020 Jul;45(7):2036-2048. doi: 10.1007/s00261-019-02398-1
5. Stowell JT, Grimstad FW, Kirkpatrick DL, et al. Imaging Findings in Transgender Patients after Gender-affirming Surgery. *RadioGraphics*. 2019;39(5):1368-1392. doi:10.1148/rg.2019190010
6. Health Care for Transgender and Gender Diverse Individuals. ACOG Committee Opinion No. 823. *Obstetrics & Gynecology*. 2021;137(3):e75–88. Reaffirmed 2024. doi:10.1097/AOG.0000000000004296
7. Annen AW, Heston AL, Dugi DD III, Dy GW, Bluebond-Langner R, Jensen KK, Berli JU. Masculinizing Genital Surgery: An Imaging Primer for the Radiologist. AJR Am J Roentgenol. 2020 Jan;214(1):W27-W36. doi: 10.2214/AJR.19.21597
8. Ono S, Hayashi H, Ohi H, Ogawa R. Imaging Studies for Preoperative Planning of Perforator Flaps: An Overview. Clin Plast Surg. 2017 Jan;44(1):21-30. doi: 10.1016/j.cps.2016.09.004.

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