

Cigna Medical Coverage Policies – Radiology Pelvis Imaging Guidelines

Effective February 01, 2024



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.

CPT® (Current Procedural Terminology) is a registered trademark of the American Medical Association (AMA). CPT® five digit codes, nomenclature and other data are copyright 2023 American Medical Association. All Rights Reserved. No fee schedules, basic units, relative values or related listings are included in the CPT® book. AMA does not directly or indirectly practice medicine or dispense medical services. AMA assumes no liability for the data contained herein or not contained herein.

Table of Contents

Guideline	Page
General Guidelines (PV-1).....	3
Abnormal Uterine Bleeding (PV-2).....	9
Amenorrhea (PV-3).....	13
Adenomyosis (PV-4).....	17
Adnexal Mass/Ovarian Cysts (PV-5).....	20
Endometriosis (PV-6).....	36
Pelvic Inflammatory Disease (PID) (PV-7).....	39
Polycystic Ovary Syndrome (PV-8).....	42
Initial Infertility Evaluation, Female (PV-9).....	45
Intrauterine Device (IUD) and Tubal Occlusion (PV-10).....	48
Pelvic Pain/Dyspareunia, Female (PV-11).....	53
Leiomyoma/Uterine Fibroids (PV-12).....	57
Periurethral Cysts, Urethral Diverticula, and Vaginal Masses (PV-13)....	61
Congenital (Mullerian) Uterine and Vaginal Anomalies (PV-14).....	65
Fetal MRI and Other Pregnancy Imaging (PV-15).....	68
Molar Pregnancy and Gestational Trophoblastic Neoplasia (GTN) (PV-16).....	74
Impotence/Erectile Dysfunction (PV-17).....	77
Penis–Soft Tissue Mass (PV-18).....	80
Male Pelvic Disorders (PV-19).....	83
Scrotal Pathology (PV-20).....	87
Fistulae, Abscess, and Pilonidal Cyst (PV-21).....	92
Urinary Incontinence/Pelvic Prolapse/Fecal Incontinence (PV-22).....	98
Patent Urachus (PV-23).....	104
Bladder Mass (PV-24).....	107
Ureteral and/or Bladder Trauma or Injury (PV-25).....	110
Gender Affirmation Surgery; Pelvic (PV-26).....	113

General Guidelines (PV-1)

Guideline	Page
Abbreviations for Pelvis Imaging Guidelines.....	4
General Guidelines (PV-1.0).....	5
General Guidelines – Overview (PV-1.1).....	6
References (PV-1).....	8

Abbreviations for Pelvis Imaging Guidelines

PV.GG.Abbreviations.A

v1.0.2024

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

General Guidelines (PV-1.0)

PV.GG.0001.0.A

v1.0.2024

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

General Guidelines – Overview (PV-1.1)

PV.GG.0001.1.A

v1.0.2024

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

Ultrasound

- Transvaginal ultrasound is the recommended modality for imaging; no alternative modality has demonstrated sufficient superiority to justify routine use, and Transvaginal (TV) ultrasound (CPT® 76830) is the optimal study to evaluate adult female pelvic pathology.
- Pelvic ultrasound (complete CPT® 76856, or limited CPT® 76857) can be performed if it is a complementary study to the TV ultrasound. It may substitute for TV in pediatric individuals or non-sexually active females.
- Transperineal ultrasound (CPT® 76872) can be performed for cases of suspected urethral abnormalities, urinary incontinence, pelvic prolapse, or vaginal cysts.
- CPT® 76942 is used to report ultrasound imaging guidance for needle placement during biopsy, aspiration, and other percutaneous procedures.

Soft Tissue Ultrasound

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

Scrotal Ultrasound

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

3D Rendering with Ultrasound

- 3D Rendering (CPT® 76376 or CPT® 76377)
 - CPT® 76377 (3D rendering requiring image post-processing on an independent work station) or CPT® 76376 (3D rendering not requiring image post-processing on an independent workstation) can be considered in the following clinical scenarios:
 - Uterine intra-cavitary lesion when initial ultrasound is equivocal (See **Abnormal Uterine Bleeding (AUB) (PV-2.1)** and **Leiomyoma/Uterine Fibroids (PV-12.1)**)

- Hydrosalpinges or peritoneal cysts when initial ultrasound is equivocal (See **Complex Adnexal Masses (PV-5.3)**)
 - Lost IUD (inability to feel or see IUD string) with initial ultrasound (See **Intrauterine Device (PV-10.1)**)
 - Uterine anomaly is suspected on ultrasound (See **Uterine Anomalies (PV-14.1)**)
 - Infertility if ultrasound is indeterminate or there is clinical suspicion for intracavitary lesion (such as polyp or fibroid), hydrosalpinx, uterine synechia, adenomyosis or uterine anomalies (See **Initial Infertility Evaluation, Female (PV-9.1)**)
- There is currently insufficient data to generate appropriateness criteria for the use of 3D and 4D rendering in conjunction with Obstetrical ultrasound imaging. Per ACOG, proof of a clinical advantage of 3-dimensional ultrasonography in prenatal diagnosis, in general, is still lacking.

Other Ultrasound

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

CT

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

MRI

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

References (PV-1)

v1.0.2024

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.

Abnormal Uterine Bleeding (PV-2)

Guideline	Page
Abnormal Uterine Bleeding (AUB) (PV-2.1).....	10
Retained Products of Conception (PV-2.2).....	11
References (PV-2).....	12

Abnormal Uterine Bleeding (AUB) (PV-2.1)

PV.UB.0002.1.C

v1.0.2024

- 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.
- 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 **Leiomyomata (PV-12.1)**.

Retained Products of Conception (PV-2.2)

PV.UB.0002.2.A

v1.0.2024

- 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

References (PV-2)

v1.0.2024

1. Committee Opinion No. 631. Endometrial Intraepithelial Neoplasia. *Obstetrics & Gynecology*. 2015;125(5):1272-1278. doi:10.1097/01.aog.0000465189.50026.20 (May 2015, Reaffirmed 2020.)
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; Reaffirmed 2021; 130(4):e168-e186. 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; Reaffirmed 2023; 131(5):e124-e129. 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. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2013; 121:891-6. Reaffirmed 2020

Amenorrhea (PV-3)

Guideline	Page
Secondary Amenorrhea (PV-3.1).....	14
Primary Amenorrhea (PV-3.2).....	15
References (PV-3).....	16

Secondary Amenorrhea (PV-3.1)

PV.AM.0003.1.A

v1.0.2024

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

Background and Supporting Information

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

Primary Amenorrhea (PV-3.2)

PV.AM.0003.2.A

v1.0.2024

- 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.

References (PV-3)

v1.0.2024

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. doi:10.1097/01.aog.0000451757.51964.98. (July 2014, Reaffirmed 2020)
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

Adenomyosis (PV-4)

Guideline	Page
Adenomyosis (PV-4.1).....	18
References (PV-4).....	19

Adenomyosis (PV-4.1)

PV.AD.0004.1.A

v1.0.2024

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

Background and Supporting Information

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

References (PV-4)

v1.0.2024

1. Practice Bulletin No. 128. Diagnosis of Abnormal Uterine Bleeding in Reproductive-Aged Women. *Obstet Gynecol*. 2012 Jul;120(1):197-206. doi:10.1097/aog.0b013e318262e320. (July 2012, Reaffirmed 2021)
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, Tosti C, Sorbi F, Petraglia F. Role of medical therapy in the management of uterine adenomyosis. *Fertility and Sterility*. 2018;109(3):398-405. doi:10.1016/j.fertnstert.2018.01.013
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. *F1000Research*. 2019;8:283. doi:10.12688/f1000research.17242.1
7. Dason ES, Chan C, Sobel M. Diagnosis and treatment of adenomyosis. *Canadian Medical Association Journal*. 2021;193(7):E242-E242. doi: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

Adnexal Mass/Ovarian Cysts (PV-5)

Guideline	Page
Suspected Adnexal Mass – Initial Evaluation (PV-5.1).....	21
Simple Cysts (PV-5.2).....	23
Complex Adnexal Masses (PV-5.3).....	26
Screening for Ovarian Cancer/Suspected Ovary Cancer (PV-5.4).....	34
References (PV-5).....	35

Suspected Adnexal Mass – Initial Evaluation (PV-5.1)

PV.MC.0005.1.A

v1.0.2024

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

Background and Supporting Information

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

PV.MC.0005.2.A

v1.0.2024

- 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	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • None
>3 cm to 5 cm	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • Follow-up in 12 months with TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856); Shorter follow-up interval may be considered with clinical factors <ul style="list-style-type: none"> • 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)

Size	Pre-Menopausal	Post-Menopausal
>5 cm to ≤10 cm	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Follow-up in 3-6 months with TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856); further follow-up intervals may be adjusted on basis of degree of cyst change. 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	<ul style="list-style-type: none"> 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) 	<ul style="list-style-type: none"> 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)

PV.MC.0005.3.A

v1.0.2024

- 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.

Follow up Complex Adnexal Masses

Condition	Pre-Menopausal	Post-Menopausal
Typical hemorrhagic cyst < 10 cm (O-RADS™ 2)	<ul style="list-style-type: none"> • 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). <ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Early post-menopausal (<5 years) either: <ul style="list-style-type: none"> • 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 post-menopausal (≥ 5 years) hemorrhagic cyst should not occur <ul style="list-style-type: none"> • MRI Pelvis without and with contrast (CPT® 72197)

Condition	Pre-Menopausal	Post-Menopausal
Hemorrhagic cyst $\geq 10\text{cm}$ (O-RADS™ 3)	<ul style="list-style-type: none"> If initial ultrasound imaging confirms a Typical Hemorrhagic cyst $\geq 10\text{cm}$ <ul style="list-style-type: none"> 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) 	<ul style="list-style-type: none"> MRI Pelvis without and with contrast (CPT® 72197) can be considered
Typical Endometriomas < 10cm (O-RADS™ 2)	<ul style="list-style-type: none"> 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) <ul style="list-style-type: none"> 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) 	<ul style="list-style-type: none"> If initial ultrasound imaging confirms a typical endometrioma < 10cm then either: <ul style="list-style-type: none"> 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
<p>Typical Endometriomas $\geq 10\text{cm}$ (O-RADS™ 3)</p>	<ul style="list-style-type: none"> • If initial ultrasound imaging confirms a Typical Endometrioma $\geq 10\text{cm}$ <ul style="list-style-type: none"> • 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) 	<ul style="list-style-type: none"> • MRI Pelvis without and with contrast (CPT® 72197)

Condition	Pre-Menopausal	Post-Menopausal
Typical Dermoid < 10cm (O-RADS™ 2)	<ul style="list-style-type: none"> • 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). <ul style="list-style-type: none"> • If ≤3 cm, may consider follow-up TV ultrasound (CPT® 76830) and/or Pelvic ultrasound (CPT® 76857 or CPT® 76856) in 12 months <ul style="list-style-type: none"> • If stable follow up Ultrasound can be done at 24 months from initial exam • If >3cm but <10cm, follow-up Ultrasound 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) 	<ul style="list-style-type: none"> • Same as Pre-Menopausal

Condition	Pre-Menopausal	Post-Menopausal
Typical Dermoid ≥ 10cm (O- RADS™ 3)	<ul style="list-style-type: none"> If initial ultrasound imaging confirms a Typical Dermoid ≥10cm <ul style="list-style-type: none"> 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) 	<ul style="list-style-type: none"> Same as Pre-Menopausal
Typical benign extraovarian lesions Hydrosalpinges (Hydrosalpinx) or Peritoneal cysts (ORADS™ 2)	<ul style="list-style-type: none"> If initial imaging confirms hydrosalpinx or peritoneal cysts, follow up imaging is not indicated 	<ul style="list-style-type: none"> 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) may be performed one time:
 - To follow masses when they cannot be optimally visualized by ultrasound (e.g. suboptimal sonography due to large mass or obese individual)
 - Unexplained change of appearance during ultrasound follow-up
 - Other Individual-driven indications (e.g. the application of established risk prediction models (e.g., family history of ovarian cancer), correlation with abnormal serum biomarkers, and/or pelvic symptoms)
 - Differentiate the origin of pelvic masses that are not clearly of ovarian origin

- 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 <ul style="list-style-type: none"> • No ovarian lesion • Physiologic cyst: follicle ≤ 3cm or corpus luteum typically ≤ 3cm
O-RADS™ 2	Almost Certainly Benign <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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, \pm shadowing, smooth, any size, CS =1 • Solid lesion, shadowing, smooth, any size, CS 2-3

O-RADS	
ORADS™ 4	<p>Intermediate Risk</p> <ul style="list-style-type: none"> • Bilocular cysts without solid component(s), Irregular, any size, any color score • Multilocular cysts without solid component(s) <ul style="list-style-type: none"> • Smooth, 10 cm, CS <4 • Smooth, any size, CS 4 • Irregular, any size, any CS • Unilocular cyst with solid component(s) <ul style="list-style-type: none"> • <4 papillary projections or any solid component(s) not considered a papillary projection, any size • Bi- or multilocular cyst with solid component(s), any size, CS 1-2 • Solid lesion, non-shadowing, smooth, any size, CS 2-3
ORADS™ 5	<p>High Risk</p> <ul style="list-style-type: none"> • 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.

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

PV.MC.0005.4.A

v1.0.2024

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

References (PV-5)

v1.0.2024

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, Schradling 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.

Endometriosis (PV-6)

Guideline	Page
Endometriosis (PV-6.1).....	37
References (PV-6).....	38

Endometriosis (PV-6.1)

PV.EM.0006.1.A

v1.0.2024

- 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 for 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.

References (PV-6)

v1.0.2024

1. Practice Bulletin No. 114: Management of Endometriosis. *Obstetrics & Gynecology*. 2010;116(1):223-236. doi:10.1097/aog.0b013e3181e8b073. (July 2010. Reaffirmed 2022)
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. doi:10.1097/aog.0000000000002981. Reaffirmed 2021
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

Pelvic Inflammatory Disease (PID) (PV-7)

Guideline	Page
Pelvic Inflammatory Disease (PV-7.1).....	40
References (PV-7).....	41

Pelvic Inflammatory Disease (PV-7.1)

PV.PI.0007.1.A

v1.0.2024

- 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 or 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. gonorrhoeae or C. trachomatis, WBC on saline microscopy of vaginal fluid, and/or endometrial biopsy with endometritis.

References (PV-7)

v1.0.2024

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; Reaffirmed 2021.128:e210–26. 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)

Guideline	Page
Polycystic Ovary Syndrome (PCOS) (PV-8.1).....	43
References (PV-8).....	44

Polycystic Ovary Syndrome (PCOS) (PV-8.1)

PV.PC.0008.1.A

v1.0.2024

- 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

References (PV-8)

v1.0.2024

1. ACOG Practice Bulletin 194. Polycystic Ovary Syndrome. *Obstetrics and Gynecology*. 2018 Reaffirmed 2020. 131(6):e157-e171. 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. Reaffirmed 2021;130(3):e127-e140. doi:10.1097/aog.0000000000002297

Initial Infertility Evaluation, Female (PV-9)

Guideline	Page
Initial Infertility Evaluation, Female (PV-9.1).....	46
References (PV-9).....	47

Initial Infertility Evaluation, Female (PV-9.1)

PV.IE.0009.1.C

v1.0.2024

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)

References (PV-9)

v1.0.2024

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. Benacerraf BR, Shipp TD, Bromley B. Which Patients Benefit from a 3D Reconstructed Coronal View of the Uterus Added to Standard Routine 2D Pelvic Sonography? *American Journal of Roentgenology*. 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.00000000000012764
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;105(6):1381-1393. 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
8. Infertility Workup for the Women's Health Specialist. ACOG Committee Opinion No. 781. American College of Obstetricians and Gynecologists. *Obstetrics & Gynecology*. 2019;133(6):e377-e384. doi:10.1097/aog.0000000000003271. Reaffirmed 2020

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

Guideline	Page
Intrauterine Device (PV-10.1).....	49
Hysteroscopically Placed Tubal Occlusion Device (PV-10.2).....	51
References (PV-10).....	52

Intrauterine Device (PV-10.1)

PV.ID.0010.1.A

v1.0.2024

- 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) with or without 3-D Rendering (CPT® 76377 or CPT® 76376)
 - If TV ultrasound is negative or non-diagnostic, Pelvic ultrasound (CPT® 76856 or CPT® 76857):
 - If Pelvic ultrasound is negative or non-diagnostic, plain x-ray should be performed if pregnancy test is negative.
 - CT Pelvis without contrast (CPT® 72192) or CT Abdomen and Pelvis without contrast (CPT® 74176) or MRI Pelvis without contrast (CPT® 72195) when both ultrasound and plain x-ray are negative or non-diagnostic.
 - Desires removal of IUD
 - If 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); 3-D Rendering (CPT® 76377 or CPT® 76376) may be an add-on
 - If Pelvic ultrasound is negative or non-diagnostic, plain x-ray should be performed if pregnancy test is negative
 - CT Pelvis without contrast (CPT® 72192) or CT Abdomen and Pelvis without contrast (CPT® 74176) or MRI Pelvis without contrast (CPT®

72195) when both ultrasound and plain x-ray are equivocal or non-diagnostic

- If pregnancy test is positive:
 - The use of gynecology CPT codes for pregnant 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

v1.0.2024

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

Background and Supporting Information

- As of 2019, neither the Essure nor the Adiana tubal occlusion device is in production

References (PV-10)

v1.0.2024

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. doi: 10.1097/AOG.0000000000002394. Reaffirmed 2021
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

Pelvic Pain/Dyspareunia, Female (PV-11)

Guideline	Page
Pelvic Pain/Dyspareunia, Female (PV-11.1).....	54
References (PV-11).....	56

Pelvic Pain/Dyspareunia, Female (PV-11.1)

PV.PD.0011.1.A

v1.0.2024

- Often, the history, physical examination, and laboratory data can guide subsequent workup in individuals presenting with pelvic pain. When possible, please 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)** in the Peripheral Nerve Disorders Imaging Guidelines
 - See **Hip (MS-24)** in the Musculoskeletal Imaging Guidelines
- Work-up of interstitial cystitis/bladder pain syndrome (IC/BPS) may include history, physical exam, laboratory exam (urinalysis and urine culture), cystoscopy, and measurement of post void residual urine by bladder catheterization.

- Pelvic ultrasound (CPT® 76856 or CPT® 76857) and/or TV ultrasound (CPT® 76830).
 - CT Pelvis with contrast (CPT® 72193) may be indicated if ultrasound is equivocal for complicated interstitial cystitis/bladder pain syndrome (when ordered by specialist or any provider in consultation with a specialist).
- Proctalgia Syndromes
 - 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.

References (PV-11)

v1.0.2024

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. 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, Cosman BC, Whitehead WE. ACG Clinical Guideline: Management of Benign Anorectal Disorders. *The American Journal of Gastroenterology*. 2014;109(8):1141-1157. doi:10.1038/ajg.2014.190
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):e1-e18. doi:10.1097/aog.0000000000003324
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. Bhosale PR, Javitt MC, Atri M, et al. ACR Appropriateness Criteria® Acute Pelvic Pain in the Reproductive Age Group. *Ultrasound Quarterly*. 2016;32(2):108-115. doi:10.1097/ruq.0000000000000200

Leiomyoma/Uterine Fibroids (PV-12)

Guideline	Page
Leiomyoma/Uterine Fibroids (PV-12.1).....	58
References (PV-12).....	60

Leiomyoma/Uterine Fibroids (PV-12.1)

PV.UF.0012.1.C

v1.0.2024

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
 - 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) may be considered 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

Leiomyoma are also known as “fibroids.”

References (PV-12)

v1.0.2024

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. 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. 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.

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

Guideline	Page
Periurethral cysts, Skene duct cyst and Gartner's duct cyst (PV-13.1)...	62
Urethral Diverticula (PV-13.2).....	63
References (PV-13).....	64

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

PV.UD.0013.1.A

v1.0.2024

- 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

v1.0.2024

- 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

References (PV-13)

v1.0.2024

1. Lazarus E, Allen BC, Blaufox MD, et al. ACR Appropriateness Criteria® Recurrent Lower Urinary Tract Infection in Women. Last review date: 2014. <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, Taitongchai 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/rq.2021210018. Epub 2021 Jul 23.

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

Guideline	Page
Uterine Anomalies (PV-14.1).....	66
References (PV-14).....	67

Uterine Anomalies (PV-14.1)

PV.UA.0014.1.C

v1.0.2024

- 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 anomaly⁸ on ultrasound.
- An arcuate uterus is considered a normal variant. Therefore, advanced imaging of a known arcuate uterus is not supported.
- MRI Pelvis without and with contrast (CPT® 72197):
 - Ultrasound is indeterminate for a complex uterine anomaly, or
 - Requested for surgical planning of previously diagnosed uterine anomaly

References (PV-14)

v1.0.2024

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. Resolution 4. Revised 2015. <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). doi:10.1097/aog.0000000000002458 Reaffirmed 2020
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 Steril*. 2021;116(5):1238-1252. doi:10.1016/j.fertnstert.2021.09.025.

Fetal MRI and Other Pregnancy Imaging (PV-15)

Guideline	Page
Fetal MRI (PV-15.1).....	69
Placenta Accreta/Placenta Accreta Spectrum/Placenta Percreta (PV-15.2).....	70
C-section or Cornual (interstitial) Ectopic Pregnancy (PV-15.3).....	71
Pelvimetry (PV-15.4).....	72
References (PV-15).....	73

Fetal MRI (PV-15.1)

PV.MR.0015.1.C

v1.0.2024

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

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

PV.MR.0015.2.C

v1.0.2024

- 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.

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

PV.MR.0015.3.C

v1.0.2024

- If a cornual (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

v1.0.2024

- 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}

References (PV-15)

v1.0.2024

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) <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

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

Guideline	Page
Molar Pregnancy and GTN (PV-16.1).....	75
References (PV-16).....	76

Molar Pregnancy and GTN (PV-16.1)

PV.MP.0016.1.A

v1.0.2024

- Molar pregnancy – 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 please see **Gestational Trophoblastic Neoplasia (GTN)/Choriocarcinoma (ONC-22.5)** in the Oncology Imaging Guidelines.

References (PV-16)

v1.0.2024

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 – December 20, 2022. 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, V1.2023 -12/20/2022. ©2022 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.

Impotence/Erectile Dysfunction (PV-17)

Guideline	Page
Impotence/Erectile Dysfunction (PV-17.1).....	78
References (PV-17).....	79

Impotence/Erectile Dysfunction (PV-17.1)

PV.ED.0017.1.A

v1.0.2024

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

References (PV-17)

v1.0.2024

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.

Penis–Soft Tissue Mass (PV-18)

Guideline	Page
Penis-Soft Tissue Mass (PV-18.1).....	81
References (PV-18).....	82

Penis-Soft Tissue Mass (PV-18.1)

PV.PM.0018.1.A

v1.0.2024

- 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

References (PV-18)

v1.0.2024

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

Male Pelvic Disorders (PV-19)

Guideline	Page
Male Pelvic Disorders (PV-19.1).....	84
References (PV-19).....	86

Male Pelvic Disorders (PV-19.1)

PV.PE.0019.1.A

v1.0.2024

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

the above studies have been performed or if laboratory or clinical information suggest infection, abscess, or inflammation

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

Background and Supporting Information

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

References (PV-19)

v1.0.2024

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: 2018.
<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

Scrotal Pathology (PV-20)

Guideline	Page
Scrotal Pathology (PV-20.1).....	88
Paratesticular and spermatic cord masses (PV-20.2).....	89
Testicular Microlithiasis (PV-20.3).....	90
References (PV-20).....	91

Scrotal Pathology (PV-20.1)

PV.SP.0020.1.A

v1.0.2024

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

Background and Supporting Information

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

Paratesticular and spermatic cord masses (PV-20.2)

PV.SP.0020.2.A

v1.0.2024

- 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

v1.0.2024

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

References (PV-20)

v1.0.2024

1. 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/>
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

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

Guideline	Page
Fistula in Ano (PV-21.1).....	93
Abscess (PV-21.2).....	94
Pelvic Fistula (PV-21.3).....	95
Pilonidal Cyst (PV-21.4).....	96
References (PV-21).....	97

Fistula in Ano (PV-21.1)

PV.PA.0021.1.A

v1.0.2024

- 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.

Abscess (PV-21.2)

PV.PA.0021.2.A

v1.0.2024

- 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.

Pelvic Fistula (PV-21.3)

PV.PA.0021.3.A

v1.0.2024

- 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

Pilonidal Cyst (PV-21.4)

PV.PA.0021.4.A

v1.0.2024

- Advanced imaging is not indicated for pilonidal cyst disease⁹.
- 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 Dysraphism (PEDSP-4.2)** in the Pediatric Spine Imaging Guidelines

References (PV-21)

v1.0.2024

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. 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. doi:10.1097/dcr.0000000000000733
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.

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

Guideline	Page
Urinary Incontinence – Initial Imaging (PV-22.1).....	99
Urinary Incontinence – Further Imaging (PV-22.2).....	100
Pelvic Prolapse (PV-22.3).....	101
Fecal Incontinence (PV-22.4).....	102
References (PV-22).....	103

Urinary Incontinence – Initial Imaging (PV-22.1)

PV.IN.0022.1.A

v1.0.2024

- 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.

Urinary Incontinence – Further Imaging (PV-22.2)

PV.IN.0022.2.A

v1.0.2024

- 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

Background and Supporting Information

- 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

Pelvic Prolapse (PV-22.3)

PV.IN.0022.3.A

v1.0.2024

- 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.

Fecal Incontinence (PV-22.4)

PV.IN.0022.4.A

v1.0.2024

The evaluation of fecal incontinence generally proceeds as follows:

- Determine the severity of the incontinence (Bristol Stool Scale, Fecal Incontinence Severity Index, etc.)
- History and Physical to include digital rectal examination and perianal pinprick (to assess for neurogenic causes)
- Trial of conservative management
- Diagnostic Testing if symptoms persist to include:
 - Ano-rectal Manometry
 - Balloon Expulsion Test
 - Endoanal ultrasound (CPT® 76872) to confirm sphincter defects in individuals with suspected sphincter injury (e.g. history of vaginal delivery or anorectal surgery)
 - MRI Pelvis (CPT® 72197) or MRI Defecography (CPT® 72195) if:
 - Ano-rectal manometry suggests weak sphincter pressures AND/OR there is an abnormal balloon expulsion test

AND

- There has been a failure of a recent trial of conservative management

AND

- Surgery is being considered

Background and Supporting Information

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

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

References (PV-22)

v1.0.2024

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;134:126-42. doi:10.1097/aog.0000000000003519 (Reaffirmed 2021)
4. Committee Opinion No. 694. Management of Mesh and Graft Complications in Gynecologic Surgery. *Obstetrics & Gynecology*. 2017;129(4). doi:10.1097/aog.0000000000002022 (Reaffirmed 2021)
5. Paquette IM, Varma MG, Kaiser AM, Steele SR, Rafferty JF. The American Society of Colon and Rectal Surgeons' Clinical Practice Guideline for the Treatment of Fecal Incontinence. *Diseases of the Colon & Rectum*. 2015;58(7):623-636. doi:10.1097/dcr.0000000000000397
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. 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)
10. American College of Obstetricians and Gynecologists. ACOG practice bulletin no. 210: fecal incontinence. *Obstetrics & Gynecology*. 2019;Apr;133(4):e260-73. doi: 10.1097/AOG\ (Reaffirmed 2023)
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

Patent Urachus (PV-23)

Guideline	Page
Patent Urachus (PV-23.1).....	105
References (PV-23).....	106

Patent Urachus (PV-23.1)

PV.UR.0023.1.A

v1.0.2024

- 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) may be performed if the ultrasound is equivocal or if additional imaging is needed for surgical planning if there is a suspected urachal carcinoma or other urachal abnormality.

References (PV-23)

v1.0.2024

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 HA, Lee A, et al. The urachus revisited: multimodal imaging of benign & malignant urachal pathology. *The British Journal of Radiology*. 2020;93(1110):20190118. doi:10.1259/bjr.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

Bladder Mass (PV-24)

Guideline	Page
Bladder Mass (PV-24.1).....	108
References (PV-24).....	109

Bladder Mass (PV-24.1)

PV.BL.0024.1.A

v1.0.2024

- 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.

References (PV-24)

v1.0.2024

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

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

Guideline	Page
Ureteral and/or Bladder Trauma or Injury (PV-25.1).....	111
References (PV-25).....	112

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

PV.BT.0025.1.A

v1.0.2024

- 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

References (PV-25)

v1.0.2024

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

Gender Affirmation Surgery; Pelvic (PV-26)

Guideline	Page
Gender Affirmation Surgery; Pelvic (PV-26.1).....	114
References (PV-26).....	116

Gender Affirmation Surgery; Pelvic (PV-26.1)

PV.GA.0026.1A

v1.0.2024

- Preoperative imaging is supported as outlined below if the patient 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) may be approved for evaluation of perforator anatomy.
 - For planned anterior lateral thigh flap, bilateral lower extremity CT angiogram (CPT® 73706) may be approved
 - If iodinated contrast allergy, MRA (contrast as requested) may be considered
 - 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)
 - Surgical planning for repair of suspected fistula
 - Non diagnostic CT scan AND further imaging is needed for treatment planning

Background and Supporting Information

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

References (PV-26)

v1.0.2024

1. Coleman E, Bockting W, Botzer M, et al. Standards of Care for the Health of Transsexual, Transgender, and Gender-Nonconforming People, Version 7. *International Journal of Transgenderism*. 2012;13(4):165-232. doi:10.1080/15532739.2011.700873
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, Avanesian 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-e88. doi:10.1097/aog.0000000000004294:e75-88