

Evolut Clinical Guideline ~~037-2045~~ for Pelvis Magnetic Resonance Imaging (MRI)

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STATEMENT

General Information

- *It is an expectation that all patients receive care/services from a licensed clinician. All appropriate supporting documentation, including recent pertinent office visit notes, laboratory data, and results of any special testing must be provided. If applicable: All prior relevant imaging results and the reason that alternative imaging cannot be performed must be included in the documentation submitted.*
- *Where a specific clinical indication is not directly addressed in this guideline, medical necessity determination will be made based on widely accepted standard of care criteria. These criteria are supported by evidence-based or peer-reviewed sources such as medical literature, societal guidelines and state/national recommendations.*
- *The guideline criteria in the following sections were developed utilizing evidence-based and peer-reviewed resources from medical publications and societal organization guidelines as well as from widely accepted standard of care, best practice recommendations.*

Purpose

Pelvis Magnetic Resonance Imaging (MRI) generates images of the organs and structures within the pelvis without the use of ionizing radiation.

Special Note

- There is not an MRI-Abdomen/Pelvis MRI-combo (comparable to a CT Abdomen/Pelvis). I-such-that if imaging of both the abdomen and pelvis are indicated, two separate exams (and authorization) are required (i.e., MRI Abdomen and MRI Pelvis)
- For evaluating the placenta or imaging the maternal pelvis without need for fetal assessment, use the Pelvic MRI guideline. When assessment of the fetus is needed, see Evolent Clinical Guideline 2027 for Fetal MRI for indications.

INDICATIONS FOR PELVIC MRI

Inflammatory Bowel Disease

Evaluation of Inflammation and Infection

- For evaluation of Inflammatory Bowel Disease (IBD) such as Crohn's or Ulcerative Colitis (includes MR Enterography) ^(1,2)
 - For suspected inflammatory bowel disease after complete work up including physical exam, labs, and recent colonoscopy
 - Known inflammatory bowel disease with recurrence or worsening signs/symptoms requiring re-evaluation or for monitoring therapy

Perianal disease (3–5)

- Fistula
 - Suspected perianal fistula or occult anorectal abscess ⁽⁶⁾
 - For patients with recurrent fistula in anal or perianal Crohn’s disease ⁽⁷⁾
 - Any history of fistula limited to the pelvis that requires re-evaluation or is suspected to have recurred
- Infection
 - Suspected infection in the pelvis (based on elevated WBC, fever, anorexia, or nausea and vomiting)
 - Complications of diverticulitis limited to the pelvis (prior imaging study is not required for diverticulitis diagnosis) with severe abdominal pain or severe tenderness or mass, not responding to antibiotic treatment
 - Any known infection to have created an abscess in the pelvis that requires re-evaluation
- Stricture
 - Suspected urethral stricture or periurethral pathology after initial evaluation with cystoscopy or urethroscopy and additional imaging is needed (such as for suspected malignancy, diverticula, fistula or extensive fibrosis **OR** ~~in the setting of a pelvic fracture~~ for preoperative planning) ⁽⁸⁾

For Inflammation and Infection ~~Known or Suspected Infection~~

When CT is Contraindicated or Cannot Be Performed

- Any known infection that is clinically suspected to have created an abscess in the pelvis
- Abnormal fluid collection limited to the abdomen seen on prior imaging that needs follow-up evaluation
- Suspected peritonitis when abdominal pain and tenderness to palpation are present, and at **LEAST** one of the following ⁽⁵⁾:
 - Rebound, guarding or rigid abdomen, **OR**
 - Severe tenderness to palpation over the entire abdomen
- Complications of diverticulitis (diagnosed either clinically or by imaging) with severe abdominal pain, ~~or~~ severe tenderness, or mass that is, not responding to antibiotic treatment)

Evaluation of Suspected/Known Hernia ⁽⁹⁾

- Suspected athletic pubalgia (sports hernia) in a patient with persistent groin pain that occurs with exertion, who has not responded to active conservative treatment for four weeks, when prior imaging (ultrasound or CT) is inconclusive

- Suspected hernia and CT is inconclusive, contraindicated or cannot be performed and one of the following:
 - Deep pelvic hernia (obturator, sciatic or perineal)
 - Groin (e.g. inguinal or femoral), occult or incisional hernia **AND** exam and ultrasound are non-diagnostic or equivocal
- Known or suspected inguinal, obturator, sciatic perineal hernia with suspected complications ~~such as strangulation or incarceration, and CT is inconclusive, contraindicated or cannot be performed~~ based on one or more of the following:
 - Symptoms such as severe pain, vomiting, diarrhea or blood in stool
 - Exam findings such as inability to reduce hernia, severe tenderness, guarding, rebound
 - Complication is suggested on prior imaging
- Known pelvic or groin hernia, imaging is needed for surgical planning and clinical reason MRI is being requested rather than CT
- ~~For pelvic pain due to a suspected occult, spigelian, or incisional hernia when physical exam and prior imaging (ultrasound **AND** CT) are non-diagnostic or equivocal and limited to the pelvis~~

Musculoskeletal Indications

- Initial evaluation of suspicious mass/tumor of the bones, muscles or soft tissues of the pelvis found on an imaging study, and needing clarification, or found by physical exam and after x-ray or ultrasound is completed
- Evaluation of suspected fracture and/or injury when initial imaging is completed or for confirmed stress (fatigue) fracture for 'return to play' evaluation ⁽¹⁰⁾
- For evaluation of known or suspected aseptic/avascular necrosis of hip(s) after completion of initial x-ray ⁽¹¹⁾
- Known or suspected sacroiliitis (infectious or inflammatory) after completion of x-ray and rheumatologic workup ⁽¹²⁾
- ~~Sacroiliac Joint Dysfunction (after initial X-ray) when there is ⁽¹³⁾:~~
 - ~~Persistent back and/or sacral pain unresponsive to four (4) weeks of conservative treatment, received within the past six (6) months, including physical therapy or physician supervised home exercise plan (HEP)~~
- For evaluating the lumbosacral plexus ⁽¹³⁾ with any **ONE** of the following:
 - Confirm involvement in symptomatic patients with known tumor
 - Assess extent of injuries in the setting of pelvic trauma
 - Exclude the presence of masses in patients with unilateral changes, or inconclusive or abnormal findings on EMG when there are persistent symptoms
 - Evaluation when lumbar spine MRI is suspicious or indeterminate

- Suspicion of pudendal neuralgia in the setting of chronic pelvic pain with genital numbness and erectile dysfunction when other causes have been ruled out (see Background regarding diagnosis) ⁽¹⁴⁾
- Suspicion of meralgia paresthetica when prior testing is inconclusive (diagnostic nerve block; electrodiagnostic testing; **AND** somatosensory evoked potentials) ⁽¹⁵⁾
- Persistent musculoskeletal pelvic pain (including sacroiliac joint dysfunction and piriformis syndrome) with ALL of the following ^(16,17):
 - Initial x-ray completed
 - Pain is
 - Evaluation of persistent pain unresponsive to four (4) weeks of active conservative treatment received within the past six (6) months (physical therapy, chiropractic care or physician supervised home exercise plan (HEP))
 - Suspected piriformis syndrome after failure of 4 weeks conservative treatment ⁽¹⁷⁾
- Evaluation of both hips when the patient meets hip MRI guidelines (x-ray + persistent pain unresponsive to conservative treatment) for both the right and left hip, Pelvis MRI is the preferred study.
 - If labral tear is suspected due to a positive anterior impingement sign or posterior impingement sign, then bilateral hip MRIs are the preferred studies (not Pelvis MRI)
 - If bilateral hip arthrograms are requested and otherwise meet guidelines, bilateral hip MRIs are the preferred studies (not Pelvis MRI)
- For further evaluation of congenital anomalies of the sacrum and pelvis and initial imaging has been performed

Other Indications for Pelvic MRI

- ~~Pelvic pain when a gynecologic cause is suspected after initial imaging (ultrasound and/or CT) and laboratory evaluation has been completed~~ ⁽¹⁸⁾
- Chronic pelvic pain syndrome once after initial workup including imaging (such as ultrasound and endoscopy) and laboratory evaluation does not reveal a clear cause
- ~~E~~Location or evaluation of undescended testes in adults and in children, including determination of location of testes, if ordered by a specialist ⁽¹⁸⁾
- Evaluation and characterization of uterine and adnexal masses, (e.g., fibroids, ovaries, tubes, and uterine ligaments) or congenital uterine or renal abnormality where ultrasound has been done previously ⁽¹⁹⁾
- Evaluation of abnormal uterine bleeding when ultrasound findings are indeterminate ⁽²⁰⁾
 - Age ≤ 50 – Vascular stalk or focal doppler signal on US
 - Age > 50 – Thickened endometrium, vascular stalk or focal doppler signal on US
- Evaluation of uterus prior to and after embolization ⁽²¹⁾
- Evaluation of endometriosis when preliminary imaging has been completed or to follow

up known endometriosis ⁽²²⁾

- Further evaluation of suspected adenomyosis when ultrasound is inconclusive, such as the following ⁽²³⁾:
 - Uterine abnormality on US
 - Anechoic spaces/cysts in myometrium
 - Heterogeneous echotexture
 - Obscured endometrial/myometrial border
 - Sub-endometrial echogenic linear striations
 - Thickening of the transition zone
 - Uterine enlargement
 - Uterine wall thickening
- Prior to uterine surgery if there is an abnormality suspected on prior ultrasound
- Suspected placenta accreta or percreta when ultrasound is indeterminate ⁽²⁴⁾
- Elevated CA-125 with abnormal or indeterminate ultrasound ⁽²⁵⁾
- Further assessment of a scrotal or penile mass when ultrasound is inconclusive ⁽²⁶⁾
- Investigation of a malfunctioning penile prosthesis
- Suspected urethral diverticulum and other imaging (ultrasound) is inconclusive **OR** for surgical planning **OR** with findings on exam or cystoscopy that are highly suggestive of urethral diverticulum (i.e., ostia on cystoscopy or tender cystic lesion on anterior vaginal wall overlying the urethra) ^(27,28)
- Suspected pelvic congestion syndrome ~~in women with chronic pelvic pain (including May-Thurner and nutcracker syndromes) when other imaging is non-diagnostic~~ ultrasound is indeterminate with **NO CONTRAINDICATIONS TO CT** ⁽²⁹⁾
- Pelvic pain when a gynecologic cause is suspected after initial imaging (ultrasound and/or CT) and laboratory evaluation has been completed ⁽¹⁹⁾
- Suspected patent urachus or other urachal abnormalities when ultrasound is non-diagnostic ⁽³⁰⁾
- MR defecography for suspected structural cause of defecatory outlet obstruction to confirm diagnosis if other testing is equivocal (anorectal manometry and balloon expulsion testing) ⁽³¹⁾
- ~~Evaluation of enlargement of organ abnormality seen on previous imaging – to provide an alternative to an indeterminate or inconclusive ultrasound~~
- Transient or episodic hematospermia and age ≥ 40 with negative or inconclusive ultrasound ^(32,33)
- Persistent hematospermia (duration > 1 month, any age) with negative or inconclusive ultrasound ⁽³³⁾

When CT is ~~Inconclusive~~, Contraindicated or Cannot be Performed ~~Completed~~

- Persistent abdominal/pelvic pain after initial laboratory evaluation and either ultrasound and/or scope has been completed and does not reveal a cause
- Fever of unknown origin ~~((temperature of ≥ 101 degrees for a minimum of 3 weeks) after ALL of the following have been completed and a source is not identified: complete blood count with differential, three sets of blood cultures, chest x-ray, complete metabolic panel, urinalysis, ESR, ANA, RA, serologic testing (EBV, EMV, HIV and hepatitis), tuberculin test~~ ~~temperature of ≥ 101 degrees for a minimum of 3 weeks) after standard diagnostic tests are negative~~ ⁽³⁴⁾ (see [Background](#))
- Any B-symptoms of fevers more than 101° F, drenching night sweats, or unexplained weight loss of more than 10% of body weight over 6 months with documented concern for lymphoma/malignancy ⁽³⁴⁾
- Weight loss: ONE of the following:
 - Clinically significant unintentional weight loss i.e., ≥5% of body weight in less than 12 months (or ≥ 2% in one month), with signs or symptoms suggestive of an abdominal cause
 - Ongoing unexplained clinically significant weight loss i.e., ≥5% of body weight in less than 12 months (or ≥ 2% in one month) ⁽³⁵⁾ after initial workup ([chest x-ray, age appropriate cancer screening \(such as colonoscopy and mammography\) and labs \(including CBC, CMP, HbA1C, TSH, stool hemoccult, ESR/CRP, HIV, Hepatitis C\)](#)) has been completed, no cause identified, and second visit documenting further decline in weight. ⁽³⁶⁾
- Suspected or known retroperitoneal fibrosis after [workup](#) complete workup and ultrasound to determine extent of disease. ^(37,38)
- [Suspected paraneoplastic syndrome \(including dermatomyositis\) with high suspicion of abdominal malignancy and appropriate workup has been done](#) ⁽³⁹⁾
- [Suspected Pheochromocytoma/Paraganglioma with elevated plasma or urine metanephrines and/or normetanephrines](#)
- ~~—~~
- [For acute unilateral \(or asymmetric\) lower extremity edema with negative or inconclusive doppler US](#)
- [For chronic \(greater than 3 months\) unilateral \(or asymmetric\) lower extremity edema and suspicion of malignant cause](#) ⁽⁴⁰⁾
- ~~Diffuse, unexplained lower extremity edema with negative or inconclusive ultrasound~~ ⁽³⁵⁾ [Suspected May-Thurner syndrome \(CTV/MRV preferred\)](#) ⁽³⁶⁾
- Further evaluation of a new onset or non-reducible varicocele ⁽⁴¹⁾
- Prior to Bone Marrow Transplant (BMT) ^(42,43)
- Follow-up of abnormal lymph nodes with no prior history of malignancy

- Follow-up imaging at 3 months ⁽⁴⁴⁾

Suspected Malignancy

Suspected Prostate Cancer ^(45,46)

- Prior to prostate biopsy when notes indicate that biopsy is planned ⁽⁴⁷⁾
- In individuals with previous negative biopsy and ongoing concerns of increased risk of prostate cancer (i.e., rising or persistently elevated PSA **OR** suspicious digital rectal exam (DRE))
- For evaluation of elevated PSA (on two separate levels) when PI-RADS classification needed to make decision on whether or not to perform a biopsy when **ALL** of the following has been provided ⁽⁴⁶⁾:
 - Digital rectal examination (DRE) findings
 - PSA elevation not attributed to benign disease
 - Biopsy has been discussed with the patient (Typically, this request would be from the person performing the biopsy (i.e., urologist) and imaging done at the facility where the fusion biopsy would be performed should a higher risk lesion be identified.)
- For evaluation of a very suspicious prostate nodule on exam when biopsy is under consideration ⁽⁴⁶⁾
- Follow up MRI can be approved at the following intervals ^(48,49):
 - PI-RADS 3-5 lesions: 12-month interval
 - PI-RADS 1-2 lesions: 24-month interval
 - Earlier for PI-RADS 1-2 if biopsy is clearly planned, progressive rise in PSA or other risk factors exist

Known Malignancy

[NOTE: For malignancies in the pelvis, pelvis MRI is appropriate in addition to other systemic imaging \(CT or PET\) in the situations described below](#)

Initial Staging or Recurrence

- Pelvis MRI is indicated (if not previously done) for the following malignancies:
 - Anal Carcinoma ⁽⁵⁰⁾
 - Cervical Cancer ⁽⁵¹⁾
 - Colon or Rectal Cancer ⁽⁵²⁾
 - Gestational Trophoblastic Neoplasia ⁽⁵³⁾

- Ovarian Cancer ⁽⁵⁴⁾
- [Pediatric Solid Tumors](#) ⁽⁵⁵⁾
- [Penile Cancer](#) ⁽⁵⁶⁾
- Prostate Cancer ⁽⁴⁶⁾
- [Rectal Cancer](#)[Sarcoma in the pelvis \(soft tissue or bone\)](#) ⁽⁵⁷⁾
- Uterine Neoplasms ⁽⁵¹⁾
- Vulvar Cancer ⁽⁵⁸⁾
- For all other malignancies, Pelvis MRI is indicated [for surgical or radiation planning or to clarify indeterminate findings on CT](#)

Restaging

- Pelvis MRI is indicated for restaging during active treatment (every 2-3 cycles of chemo or immunotherapy, following radiation and/or after surgery) for the following malignancies:
 - [Anal Carcinoma](#) ⁽⁵⁰⁾
 - [Colon or Rectal Cancer](#) ⁽⁵²⁾
 - [Ovarian Cancer](#) ⁽⁵⁴⁾
 - [Pediatric Solid Tumors](#) ⁽⁵⁵⁾
 - Prostate Cancer ⁽⁴⁶⁾:
 - ~~Annually if on active surveillance~~ When recurrence is suspected [and PSMA PET is not planned \(see Evolent Clinical Guideline 2046 for PET for further detail\)](#)
 - [Rectal Cancer](#)[Sarcoma in the pelvis \(soft tissue or bone\)](#) ⁽⁵⁷⁾
 - [Uterine Cancer](#) ⁽⁵¹⁾
 - [Vulvar Cancer](#) ⁽⁵⁸⁾
- [For all other malignancies, Pelvis MRI is indicated for surgical or radiation planning or to clarify indeterminate findings on CT](#)

Surveillance

- [Cervical cancer: as clinically indicated](#) ⁽⁵¹⁾
- [Ovarian Cancer: every 3-6 months for 2 years then every 6-12 months for 3 years](#) ⁽⁵⁴⁾
- [Pediatric solid tumors: as clinically indicated \(frequent imaging is appropriate\)](#) ⁽⁵⁵⁾
- **Prostate Cancer:** [Annually if on active surveillance](#) ⁽⁴⁶⁾
- [Rectal Cancer: every 3-6 months for 2 years, every 6-12 months for 5 years](#) ⁽⁵⁹⁾
- [Sarcoma in the pelvis \(soft tissue or bone\): Every 3-6 months for 5 years, then annually for 5 years](#) ⁽⁵⁷⁾

- ~~For other cancers not listed above,~~ Pelvis MRI is not typically used during surveillance, however, ~~for the cancers listed above,~~ can be considered on a case to case basis **OR** ~~when CT is contraindicated and cannot be performed~~

PREOPERATIVE OR POSTOPERATIVE ASSESSMENT EVALUATION

When not otherwise specified in the guideline:

Preoperative Evaluation:

- Imaging of the area requested is needed to develop a ~~For diagnostic purposes prior to pelvic surgery plan or procedure~~

Postoperative Evaluation:

- Known or suspected ~~post-operative~~ complications ~~(within 6 months)~~ involving the hips or the pelvis
- A ~~follow-up study to help evaluate a patient's progress after treatment, procedure, intervention, or surgery. Documentation requires a medical-clinical reason is provided how that clearly indicates why additional~~ imaging may change management is needed.

NOTE: This section applies only within the first few months following surgery

FURTHER EVALUATION OF INDETERMINATE FINDINGS ~~ON PRIOR IMAGING~~

Unless follow up is otherwise specified within the guideline:

- For initial evaluation of an inconclusive finding on a prior imaging report that requires further clarification
- One follow-up exam of a prior indeterminate MR/CT finding to ensure no suspicious interval change has occurred. (No further surveillance unless specified as highly suspicious or change was found on last follow-up exam)

IMAGING IN KNOWN GENETIC CONDITIONS SYNDROMES AND RARE DISEASES

- BHDS (Birt-Hogg-Dube): annually starting at age 20 (or earlier with family history of renal tumors diagnosed before age 30) ^(60,61)
- FAP (Familial Adenomatous Polyposis): annual screening of abdomen and pelvis with MRI or CT for one or more of the following: personal history of desmoid tumor, family history of desmoid tumor or abdominal symptoms suggestive of desmoid tumor ⁽⁶²⁾

- ~~PGL/PCC (Hereditary Paraganglioma/Pheochromocytoma syndromes or SDHx mutations): every 2 years IF whole body MRI (unlisted MRI CPT 76498) NOT available (56) (see Evolent Clinical Guideline 2061 for Unlisted Studies)~~ Multiple Endocrine Neoplasia type 1 (MEN1): annually starting at age 8 (63,64)
- STK11 (Peutz-Jeghers Syndrome): at diagnosis, annually starting at age 8 (65)
- For other syndromes and rare diseases not otherwise addressed in the guideline, coverage is based on a case-by-case basis using societal guidance

Combination studies for known genetic conditions

NOTE: When medical necessity is met for an individual study AND conscious sedation is required (such as for young pediatric patients or patients with significant developmental delay), the entire combination is indicated)

Brain/Chest/Abdomen/Pelvis MRI (63,64)

- Multiple Endocrine Neoplasia Syndrome Type 1 (MEN-1)
 - Chest/Abdomen/Pelvis a Annually starting at age 8
 - Brain/Chest/Abdomen/Pelvis Every 3 years include Brain MRI

~~NECK/ABDOMEN/PELVIS MRI AND CHEST CT~~

~~PGL/PCC (HEREDITARY PARAGANGLIOMA/PHEOCHROMOCYTOMA SYNDROMES OR SDHX MUTATIONS): EVERY 2 YEARS IF WHOLE BODY MRI (UNLISTED MRI CPT 76498) NOT AVAILABLE (SEE EVOLENT CLINICAL GUIDELINE 2061 FOR UNLISTED STUDIES)~~ (NCCN KIDNEY, ELSE-202 OTHER COMBINATION STUDIES WITH PELVIS MRI

NOTE: When medical necessity is met for an individual study AND conscious sedation is required (such as for young pediatric patients or patients with significant developmental delay), the entire combination is indicated)

Abdomen/Pelvis MRI

- As a dedicated CPT code does not exist for Abdomen and Pelvis MRI (unlike CT), when a disease process is reasonably expected to involve both the abdomen and pelvis

AND the guideline criteria have been met, two separate authorizations are required: Abdomen MRI (CPT 74181, 74182, 74183) and Pelvis MRI (CPT 72195, 72196, 72197).

Pelvis MRI and Pelvis MRA

- When needed for clarification of vascular ~~invasion~~ involvement from tumor (including suspected renal vein thrombosis) ⁽⁶⁶⁾
- Prior to uterine artery embolization for fibroids ⁽⁶⁷⁾

Pelvis MRI and Fetal MRI

- When medical necessity has been met for Pelvis MRI (such as for suspected placenta accreta or percreta when ultrasound is indeterminate ⁽²⁴⁾ **AND** medical necessity has been met for Fetal MRI (such as suspected fetal abnormality after ultrasound has been performed), two separate authorizations are required: Pelvis MRI (CPT 72195) and Fetal MRI (CPT 74712).

Combination Studies for Malignancy for Initial Staging or Restaging

Unless otherwise specified in this guideline, indication for combination studies for malignancy for initial staging or restaging:

- Concurrent studies to include CT or MRI of any of the following areas as appropriate depending on the cancer: Abdomen, Brain, Chest, Neck, Pelvis, Cervical Spine, Thoracic Spine or Lumbar Spine.

CODING AND STANDARDS

Coding

~~CPT Codes~~

72195, 72196, 72197, +0698T

Applicable Lines of Business

☒	CHIP (Children’s Health Insurance Program)
☒	Commercial
☒	Exchange/Marketplace
☒	Medicaid



BACKGROUND

PI-RADS Assessment Categories for Prostate Cancer

The assignment of a PI-RADS category is based on mpMRI findings only and does not incorporate other factors, including PSA testing, DRE (digital rectal exam), or clinical history.

- PI-RADS 1 – Very low (clinically significant cancer is highly unlikely to be present)
- PI-RADS 2 – Low (clinically significant cancer is unlikely to be present)
- PI-RADS 3 – Intermediate (the presence of clinically significant cancer is equivocal)
- PI-RADS 4 – High (clinically significant cancer is likely to be present)
- PI-RADS 5 – Very high (clinically significant cancer is highly likely to be present)

Conservative Therapy

Conservative therapy should include a multimodality approach consisting of a combination of active and inactive components. [Completion of at least one active modality for 4 weeks in the past 6 months is required:](#)

Active Modalities

- Physical therapy
- Physician-supervised home exercise program (HEP) (See Below)
- Chiropractic care

Inactive Modalities

- Inactive components, such as rest, ice, heat, modified activities, medical devices, acupuncture and/or stimulators, medications, injections (epidural, facet, bursal, and/or joint, not including trigger point), and diathermy can be utilized. Medications (e.g., NSAIDs, steroids, analgesics)
- Injections
- Medical Devices (e.g., TENS unit, bracing)

Home Exercise Program (HEP)

The following two elements are required to meet guidelines for completion of conservative therapy:

- Information provided on exercise prescription/plan AND
- Follow-up with patient with documentation provided ~~regarding lack of improvement~~

~~(failed) after~~ completion of HEP over at least a ~~4-week~~4-week period **OR** documented inability to complete HEP due to increased pain with inability to physically perform the prescribed exercises.

NOTE: Patient inconvenience or noncompliance without explanation does not meet the “inability to complete HEP” criterium ~~Dates and duration of failed PT, physician supervised HEP, or chiropractic treatment should be documented in the original office notes or an addendum to the note~~

MRI and Lumbosacral Plexopathy

Complete lumbar (L1-L4) or sacral plexopathy (L5-S3) may present with weakness, sensory loss, and flaccid loss of tendon reflexes. Clinical diagnosis is confirmed by EMG. Acute and chronic plexopathies may be caused by nerve sheath tumors; infectious, autoimmune, hereditary, or idiopathic neuropathies; extrinsic compression; or trauma. There is no CPT® code specifically for imaging of the LS plexus.

Pudendal neuralgia may be considered in chronic pain patients who meet the Nantes criteria: pain in the area innervated by the pudendal nerve, pain more severe with sitting, pain that does not awaken the patient from sleep, pain with no objective sensory impairment, and pain relieved by pudendal block. All five criteria must be met for diagnosis.

~~Elevated CA-125 and Pelvic Imaging~~

~~There is no evidence that isolated levels of CA-125 with no other clinical or radiologic evidence of pathology is sensitive or specific and should not be performed as an isolated test as it can lead to unnecessary studies and anxiety. It is elevated in most cases of epithelial ovarian cancer and is used in monitoring response to treatment as an adjunct to pelvic US. CA-125 has been shown to be increased in many conditions such as fibroids, adenomyosis, pancreatic cancer, endometriosis, tuberculosis, and interstitial lung disease. MRI is not indicated as a first-line test.~~

~~Fever of Unknown Origin~~

~~Initial work-up prior to CT would include a comprehensive history, repeated physical exam, complete blood count with differential, three sets of blood cultures, chest x-ray, complete metabolic panel, urinalysis, ESR, ANA, RA, CMV IgM antibodies, virus detection in blood, heterophile antibody test, tuberculin test, and HIV antibody test. Lastly, with a negative CXR, only when initial workup and abdomen/pelvis CT/MR fail to identify the cause for fever can Chest CT be approved. If CXR suggests a malignancy and/or source of fever, then Chest CT would be approved.~~

~~Paraneoplastic Syndromes~~

~~Suspected paraneoplastic syndromes with no established cancer diagnosis: laboratory evaluation and imaging~~

~~The laboratory evaluation for paraneoplastic syndrome is complex. If the appropriate lab test results are suspicious for malignancy, imaging is indicated.~~

~~For **SIADH** (hyponatremia + increased urine osmolality), there is a high association with small cell lung cancer, therefore imaging typically starts with chest CT. If other symptoms suggest a~~

different diagnosis other than small cell lung cancer, different imaging studies may be reasonable.

For **hypercalcemia** (high serum calcium, low-normal PTH, high PTHrP) it is reasonable to start with bone imaging followed by a more directed evaluation such as mammogram, chest, abdomen and pelvis imaging as appropriate.

For **Cushing syndrome** (hypokalemia, normal-high midnight serum ACTH NOT suppressed with dexamethasone) abdominal and chest imaging is reasonable. If dexamethasone suppression test DOES suppress ACTH, pituitary MRI is reasonable.

For **hypoglycemia**, labs drawn during a period of hypoglycemia (glucose < 55 , typically a 72 hour fast) (insulin level, C-peptide and IGF-2:IGF-1 ratio) should be done to evaluate for an insulinoma. An elevated insulin level, elevated C-peptide and/or normal IGF-2:IGF-1 ratio warrants CT or MRI abdomen to look for insulinoma. A low insulin, low C-peptide and/or elevated IGF-2:IGF-1 ratio warrants chest and abdominal imaging.

When a **paraneoplastic neurologic syndrome** is suspected, nuclear and cytoplasmic antibody panels are often ordered to further identify specific tumor types. Results are needed prior to imaging. Because these tests are highly specific, if an antibody highly associated with a specific cancer is positive, then further imaging for that cancer is reasonable. For example, anti-Hu has a high association with SCLC and chest CT would be reasonable. Anti-MA2 has a high association with testicular cancer and testicular ultrasound would be a reasonable next step.

Weight Loss

Unintentional weight loss is considered clinically significant if the amount of weight lost over 12 months is $\geq 5\%$. Older age and higher percentage of weight loss correlates with higher likelihood of malignancy. A targeted evaluation is recommended when there are signs or symptoms suggestive of a specific source. For example, when there is clinically significant weight loss with abdominal pain that prompts an evaluation for an abdominal source of the weight loss; CXR and labs such as TSH would not be needed prior to abdominal imaging. Conversely a smoker with a cough and weight loss would not start with abdominal imaging, a chest x-ray (CXR) would be the first test to start with. When there is no suspected diagnosis, initial evaluation includes CXR, age-appropriate cancer screening (such as colonoscopy and mammography) and labs (including CBC, CMP, HbA1C, TSH, stool hemoccult, ESR/CRP, HIV, Hepatitis C). If this initial evaluation fails to identify a cause of weight loss, then the patient is monitored and if progressive weight loss is seen on subsequent visits/weights, then CT Abdomen/Pelvis is reasonable (MRI if there is a contraindication to CT such as contrast allergy or impaired renal function). Lastly, with a negative CXR, only when initial workup and abdomen/pelvis CT/MR fail to identify the cause for weight loss can Chest CT be approved. If CXR suggests a malignancy and/or source of weight loss, then Chest CT would be approved.

Contraindications and Preferred Studies

- Contraindications and reasons why a CT/CTA cannot be performed may include: impaired renal function, significant allergy to IV contrast, pregnancy (depending on trimester)
- Contraindications and reasons why an MRI/MRA cannot be performed may include: impaired renal function, claustrophobia, non-MRI compatible devices (such as non-

compatible defibrillator or pacemaker), metallic fragments in a high-risk location, patient exceeds weight limit/dimensions of MRI machine

SUMMARY OF EVIDENCE

Diagnostic imaging of acute abdominal pain in adults ⁽³⁾

- **Study Design:** This document is a review article that provides evidence-based guidelines for the diagnostic imaging of acute abdominal pain in adults.
- **Target Population:** The target population includes adults presenting with acute abdominal pain in both outpatient and emergency settings.
- **Key Factors:** The article outlines the appropriate imaging modalities based on the location of pain and clinical presentation. It highlights the use of ultrasonography for right upper quadrant pain, CT for right or left lower quadrant pain, and the limited diagnostic value of conventional radiography.

ACR Appropriateness Criteria® Hernia ⁽⁹⁾

- **Study Design:** This document is a guideline by the ACR focusing on the initial imaging of suspected abdominopelvic hernias.
- **Target Population:** The target population includes adults with signs or symptoms prompting suspicion of abdominopelvic hernia.
- **Key Factors:** The guideline discusses the use of CT, ultrasound, and MRI as first-line imaging modalities for evaluating hernias. It also addresses the appropriateness of different imaging techniques based on the type of hernia suspected.

ACR Appropriateness Criteria® Acute Pelvic Pain in the Reproductive Age Group: 2023 Update ⁽¹⁹⁾

- **Study Design:** This document is a guideline update by the American College of Radiology (ACR) focusing on the initial imaging in the reproductive age adult population with acute pelvic pain.
- **Target Population:** The target population includes patients with acute pelvic pain, both with positive and negative beta-human chorionic gonadotropin (b-hCG) levels, and suspected gynecological and non-gynecological etiologies.
- **Key Factors:** The guideline emphasizes the use of transabdominal and transvaginal pelvic ultrasound with Doppler as initial imaging. It also discusses the appropriateness of CT and MRI in different scenarios based on the suspected etiology.

ANALYSIS OF EVIDENCE

Analysis ^(3,9,19):

In summary, while there is consensus on the utility of MRI in specific scenarios, the recommendations vary based on the clinical context and the specific condition being evaluated. MRI is generally considered a valuable imaging modality, particularly when other methods are inconclusive or not suitable.

Shared Conclusions

- **MRI as a Secondary Option:** All three articles agree that MRI is often a secondary option when other imaging modalities (like ultrasound or CT) are inconclusive or not feasible.
- **Use of Contrast:** The use of IV contrast in MRI is a common consideration across the articles, with specific recommendations varying based on the clinical scenario.
- **Pregnancy Considerations:** MRI is preferred for pregnant patients due to the lack of ionizing radiation.

POLICY HISTORY

Date	Summary
<u>July 2025</u>	<ul style="list-style-type: none"> ● <u>Added a Summary of Evidence and Analysis of Evidence</u>
<u>June 2025</u>	<ul style="list-style-type: none"> ● <u>This guideline replaces Evolent Clinical Guideline 037 for Pelvis MRI</u> ● <u>Added in general information statement regarding guideline criteria development by reputable sources, standard of care, and best practices</u> ● <u>Fistula and inflammation section revised</u> ● <u>Hernia and musculoskeletal pelvic pain section revised</u> ● <u>Genetics imaging and malignancy sections updated</u> ● <u>Applicable Line of Business adjusted – Medicare checked</u> ● <u>Updated language in the preoperative/postoperative section</u> ● <u>Segment added to combinations studies about if the required use of conscious sedation is needed the entire combination is indicated</u> ● <u>Background section shortened and integrated into indications</u> ● <u>References updated</u>
June 2024	<ul style="list-style-type: none"> ● Revised the purpose ● Clarified when to use Fetal MRI and Pelvis MRI

Date	Summary
	<ul style="list-style-type: none"> ● Made Inflammation and Infection section to re-organize information ● Clarified gynecologic reasons of why MRI vs CT ● Prostate Cancer condensed in the suspected section ● Known Malignancy was adjusted to follow same organization as other guidelines ● Genetics and Rare Diseases was adjusted/added ● Combination studies were adjusted to align across Guidelines
<p>March 2023</p>	<ul style="list-style-type: none"> ● Prostate cancer: updated guidance based on new NCCN criteria ● IBD: clarified indications ● Hernia: added indication for deep pelvic hernia ● Musculoskeletal: additional guidance provided for hip imaging, non-diagnostic requests added, corrected statement requiring abnormal x-ray to requiring prior x-ray ● Other: specified guidance for weight loss, paraneoplastic syndrome, edema; added indications for thrombocytopenia, gestational trophoblastic disease, cancer predisposition syndromes ● Aneurysm: added section about non-aortic vascular disease ● Transplant: added section ● General Information moved to beginning of guideline with added statement on clinical indications not addressed in this guideline ● Added statement regarding further evaluation of indeterminate findings on prior imaging ● Aligned sections across body imaging guidelines

LEGAL AND COMPLIANCE

Guideline Approval

Committee

Reviewed / Approved by Evolent Specialty Clinical Services Guideline Review Committee

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