Evolent Clinical Guideline 2043 for Pelvis Computed Tomography Angiography (CTA)

Guideline Number: Evolent_CG_2043	**Applicable Codes**	
"Evolent" refers to Evolent Health LLC and Evolent Specialty Services, Inc. 		
Original Date: July 2008	**Last Revised Date:** July 2025	**Implementation Date:** January 2026

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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

Computed tomography angiography (CTA) generates images of the arteries that can be evaluated for evidence of stenosis, occlusion, or aneurysms. It is used to evaluate the arteries of the abdominal aorta and the renal arteries. CTA uses ionizing radiation and requires the administration of iodinated contrast agent, which is a potential hazard in patients with impaired renal function. It is not appropriate as a screening tool for asymptomatic patients without a previous diagnosis.

Special Note

- **NOTE:** For conditions where both abdomen and pelvis imaging are needed and/or the disease process is reasonably expected to involve both the abdomen and pelvis, requests should be resubmitted as CPT 74174 (CTA Abdomen Pelvis). See Evolent Clinical Guideline 2005 for Abdomen Pelvis CTA for coverage indications.
- **NOTE**: When vascular imaging of the aorta and both legs is requested (sometimes incorrectly requested as Abd/Pelvis CTA & Lower Extremity CTA), only **ONE** authorization request is required, using CPT Code 75635 (CTA Abdominal Aorta with Lower Extremity Runoff). This study provides for imaging of the abdomen, pelvis, and both legs. A separate authorization for Lower Extremity CTA is **NOT** needed.

INDICATIONS FOR PELVIS CTA

Venous Disease

- Suspected pelvic congestive syndrome (including May-Thurner and nutcracker syndromes) when ultrasound is indeterminate with NO CONTRAINDICATIONS TO

CT [1]

- For acute unilateral (or asymmetric) lower extremity edema with negative or inconclusive doppler US [2]
- For chronic (greater than 3 months) unilateral (or asymmetric) lower extremity edema and suspicion of malignant cause [2]
- Evaluation of venous thrombosis in the inferior vena cava [3]
- Venous thrombosis if previous studies (such as ultrasound) have not resulted in a clear diagnosis [4]
- Other Vascular Abnormalities of the Pelvis Initial evaluation of inconclusive pelvic vascular findings on prior imaging
- For evaluation or monitoring of non-aortic large vessel pelvic vascular disease (e.g., aneurysm, dissection, arteriovenous malformations (AVM), vascular fistula, intramural hematoma, compression syndromes and vasculitis) and the findings are reasonably expected to be limited to the pelvis [5–7]
- Suspected complications of known aneurysm of the pelvis as evidenced by clinical findings such as new onset of pelvic pain (prior ultrasound is **NOT** required)

Evaluation of Tumor

- When needed for clarification of vascular involvement from tumor [8]

PREOPERATIVE OR POSTOPERATIVE ASSESSMENT

When not otherwise specified in the guideline:

Preoperative Evaluation [9,10]:

- Evaluation of interventional vascular procedures prior to endovascular aneurysm repair (EVAR), or for luminal patency versus restenosis due to conditions such as atherosclerosis, thromboembolism, and intimal hyperplasia
- For imaging of the deep inferior epigastric arteries prior to breast reconstructive surgery and only pelvic imaging is needed (i.e. Abdomen CTA not requested)
- Prior to uterine artery embolization for fibroids (MRA preferred) [11]
- Evaluation of vascular anatomy prior to solid organ transplantation
- Imaging of the area requested is needed to develop a surgical plan

Postoperative Evaluation

- Follow-up study may be needed to help evaluate a patient's progress after treatment, procedure, intervention, or surgery. Documentation requires a medical reason that clearly indicates why additional imaging is needed for the type and area(s) requested.
- Evaluation of endovascular/interventional vascular procedures for luminal patency

versus restenosis due to conditions such as atherosclerosis, thromboembolism, and intimal hyperplasia

- Evaluation of post-operative complications, e.g., pseudoaneurysms related to surgical bypass grafts, vascular stents, and stent-grafts in the pelvis
- Evaluation of post-operative complications of renal transplant allograft [11]
- Known or suspected complications
- A clinical reason is provided how imaging may change management

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

FURTHER EVALUATION OF INDETERMINATE FINDINGS

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

- Marfan Syndrome [12]:
  - Every 3 years (including at diagnosis)
  - More frequently (annually) if **EITHER**: history of dissection, dilation of aorta beyond aortic root **OR** aortic root/ascending aorta are not adequately visualized on Transthoracic Echocardiogram (TTE) (i.e. advanced imaging is needed to monitor the thoracic aorta)
- Vascular Ehlers-Danlos (vEDS) Syndrome [13]:
  - Every 18 months (including at diagnosis) **OR**
  - As clinically indicated to follow known vascular abnormalities

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/Neck/Chest/Abdomen/Pelvis CTA

- Vascular Ehlers-Danlos (vEDS) Syndrome [13]:
  - Every 18 months (including at diagnosis) **OR**
  - As clinically indicated to follow known vascular abnormalities

Chest/Abdomen/Pelvis CTA

- Marfan Syndrome [12]:
  - Every 3 years (including at diagnosis)
  - More frequently (annually) if **EITHER**: history of dissection, dilation of aorta beyond the aortic root **OR** aortic root/ascending aorta are not adequately visualized on Transesophageal Echocardiogram (TEE) (i.e., advanced imaging is needed to monitor the thoracic aorta)

OTHER COMBINATION STUDIES WITH PELVIS CTA

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)

Pelvis CTA/Pelvis CT:

- When needed for clarification of vascular involvement from tumor (including suspected renal vein thrombosis) [14]
- Prior to uterine artery embolization for fibroids [15]

CODING AND STANDARDS

Codes

72191

Applicable Lines of Business

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

☒	Medicare Advantage

BACKGROUND

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

Insights into pelvic venous disorders [(1)]

Study Design: This is a review article that focuses on pelvic venous disorders (PeVD), also known as pelvic congestion syndrome (PCS).

Target Population: Mainly young women between the ages of 20 and 50 years, who experience chronic pelvic pain (CPP) due to venous-related symptoms.

Key Factors: The article discusses the multifactorial etiology of PeVD, including genetic predisposition, anatomical abnormalities, and hormonal factors. It emphasizes the importance of imaging in diagnosing PeVD and proposes a new classification scheme to assist clinical decision-making. The review also covers various therapeutic approaches, including minimally invasive techniques, and highlights the need for standardized guidelines for treatment.

Diagnostic approach to lower limb edema [(2)]

Study Design: This is a review article that proposes a diagnostic algorithm for lower limb edema.

Target Population: Patients with lower limb edema, often referred to vascular specialists for evaluation.

Key Factors: The article emphasizes the importance of a thorough history, physical examination, and laboratory and imaging evaluations to differentiate the causes of lower limb edema. It highlights the multifactorial etiology of edema, including venous disease, lymphatic dysfunction, and systemic disorders. The proposed diagnostic approach aims to accurately identify the causes of chronic edema and institute appropriate therapy

ACR Appropriateness Criteria® Radiologic Management of Mesenteric Ischemia: 2022 Update [6]

Study Design: This is an update on the ACR Appropriateness Criteria for the radiologic management of mesenteric ischemia.

Target Population: Patients with mesenteric ischemia, including acute and chronic cases.

Key Factors: The article discusses various endovascular and surgical interventions for mesenteric ischemia, including embolectomy, thrombolysis, angioplasty, and stent placement. It provides evidence-based guidelines for the appropriate use of these interventions based on the clinical scenario, such as the presence of embolus, atherosclerotic plaque, or venous mesenteric ischemia. The guidelines aim to improve patient outcomes by recommending the most suitable imaging and treatment procedures

ANALYSIS OF EVIDENCE

Analysis [1,2,6]:

In summary, while all three articles highlight the importance of diagnostic imaging and clinical evaluation in managing vascular conditions, they differ in their focus on specific conditions, etiologies, treatment approaches, and prognostic factors. Each article contributes valuable insights into the role of CTA and other imaging modalities in diagnosing and managing these conditions.

Shared Findings:

- **Diagnostic Imaging Techniques**: All three articles emphasize the importance of diagnostic imaging techniques in evaluating pelvic conditions. Discusses the use of Duplex ultrasound (DUS) and contrast-enhanced venous phase computed tomography (CT) for evaluating lower limb edema, highlights the role of CT angiography (CTA) in diagnosing mesenteric ischemia, and focuses on various imaging modalities, including ultrasound, CT, and MRI, for diagnosing pelvic venous disorders (PeVD).
- **Role of CTA**: Discuss the role of CTA in diagnosing vascular conditions and emphasizes CTA's importance in identifying mesenteric ischemia and evaluating the extent of vascular compromise, and mentions CTA's utility in assessing pelvic venous congestion and identifying anatomical abnormalities.
- **Clinical Presentation and Symptoms**: All three articles discuss the clinical presentation and symptoms associated with the conditions they cover.

POLICY HISTORY

Date	Summary
July 2025	• Adjusted guideline title to spell out CT acronym • Added a Summary of Evidence and Analysis of Evidence

Date	Summary
June 2025	• This guideline replaces Evolent Clinical Guideline 038 for Pelvis CTA • Updated language in the Venous disease section for pelvic congestion syndrome (includes May-Thurner and nutcracker syndrome) • Updated language in the Venous disease section for acute and chronic unilateral or asymmetric lower extremity edema • Updated the language in Other Vascular Abnormalities section • Updated language in the preoperative/postoperative section • Added combination studies for known genetic conditions section • Segment added to the combination's studies about if the required use of conscious sedation is needed the entire combination is indicated • Background section reduced
June 2024	• Updated references • Clarified language on combining abdomen and pelvis CTA • Updated Combination studies to align across guidelines

LEGAL AND COMPLIANCE

Guideline Approval

Committee

Reviewed / Approved by Evolent Specialty Services Clinical Guideline Review Committee

Disclaimer

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agreements and laws or regulations. Members should contact their Plan customer service representative for specific coverage information.

Evolent Clinical Guidelines are comprehensive and inclusive of various procedural applications for each service type. Our guidelines may be used to supplement Medicare criteria when such criteria is not fully established. When Medicare criteria is determined to not be fully established, we only reference the relevant portion of the corresponding Evolent Clinical Guideline that is applicable to the specific service or item requested in order to determine medical necessity.

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