



Cohere Medicare Advantage Policy – Computed Tomography, Cardiac

Clinical Guidelines for Medical Necessity Review

Version: 1.1
Effective Date: March 18, 2025

Important Notices

Notices & Disclaimers:

GUIDELINES ARE SOLELY FOR COHERE'S USE IN PERFORMING MEDICAL NECESSITY REVIEWS AND ARE NOT INTENDED TO INFORM OR ALTER CLINICAL DECISION-MAKING OF END USERS.

Cohere Health, Inc. ("**Cohere**") has published these clinical guidelines to determine the medical necessity of services (the "**Guidelines**") for informational purposes only, and solely for use by Cohere's authorized "**End Users**". These Guidelines (and any attachments or linked third-party content) are not intended to be a substitute for medical advice, diagnosis, or treatment directed by an appropriately licensed healthcare professional. These Guidelines are not in any way intended to support clinical decision-making of any kind; their sole purpose and intended use is to summarize certain criteria Cohere may use when reviewing the medical necessity of any service requests submitted to Cohere by End Users. Always seek the advice of a qualified healthcare professional regarding any medical questions, treatment decisions, or other clinical guidance. The Guidelines, including any attachments or linked content, are subject to change at any time without notice. This policy may be superseded by existing and applicable Centers for Medicare & Medicaid Services (CMS) statutes.

©2025 Cohere Health, Inc. All Rights Reserved.

Other Notices:

HCPCS® and CPT® copyright 2025 American Medical Association. All rights reserved.

Fee schedules, relative value units, conversion factors and/or related components are not assigned by the AMA, are not part of CPT, and the AMA is not recommending their use. The AMA does not directly or indirectly practice medicine or dispense medical services. The AMA assumes no liability for data contained or not contained herein.

HCPCS and CPT are registered trademarks of the American Medical Association.

Guideline Information:

Specialty Area: Diagnostic Imaging

Guideline Name: Cohere Medicare Advantage Policy - Computed Tomography (CT), Cardiac

Date of last literature review: 10/2/2024

Document last updated: 3/18/2025

Type: ☒ Adult (18+ yo) | ☒ Pediatric (0-17 yo)

Table of Contents

Important Notices	2
Table of Contents	3
Medical Necessity Criteria	4
Service: Computed Tomography (CT), Cardiac	4
Benefit Category	4
Related CMS Documents	4
Recommended Clinical Approach	4
Evaluation of Clinical Benefits and Potential Harms	5
Medical Necessity Criteria	6
Indications	6
Non-Indications	9
Disclaimer on Radiation Exposure in Pediatric Population	10
Level of Care Criteria	11
Procedure Codes (CPT/HCPCS)	11
Medical Evidence	13
References	15
Clinical Guideline Revision History/Information	18

Medical Necessity Criteria

Service: Computed Tomography (CT), Cardiac

Benefit Category

Diagnostic Services in Outpatient Hospital
Diagnostic Tests (other)

Please Note: This may not be an exhaustive list of all applicable Medicare benefit categories for this item or service.¹

Related CMS Documents

Please refer to the [CMS Medicare Coverage Database](#) for the most current applicable CMS National Coverage.¹⁻⁵

- [National Coverage Determination \(NCD\). Computed tomography \(CT\) \(220.1\)](#)
- [Local Coverage Determination \(LCD\). Cardiac computed tomography \(CCT\) and coronary computed tomography angiography \(CCTA\) \(L33559\)](#)
- [Local Coverage Determination \(LCD\). Cardiac computed tomography \(CCT\) and coronary computed tomography angiography \(CCTA\) \(L33947\)](#)
- [Local Coverage Determination \(LCD\). Coronary computed tomography angiography \(CCTA\) \(L35121\)](#)
- [Local Coverage Determination \(LCD\). Cardiac computed tomography and angiography \(CCTA\) \(L33423\)](#)

Recommended Clinical Approach

The referring clinician determines the appropriate clinical indication in consultation with a cardiac imaging expert. The patient's pertinent medical history should justify the exam. The examination is primarily performed with IV contrast; however, non-contrast examinations are typically used for calcium scoring and in other limited clinical scenarios. The techniques used to detect

and quantify coronary artery calcification (CAC) have evolved. Newer generations of CT scanners have widely replaced electron-beam CT (EBCT).

Evaluation of Clinical Benefits and Potential Harms

Cohere Health uses the criteria below to ensure consistency in reviewing the conditions to be met for coverage of Cardiac CT. This process helps to prevent both incorrect denials and inappropriate approvals of medically necessary services. Specifically, limiting incorrect approvals reduces the risks associated with unnecessary procedures, such as complications from surgery, infections, and prolonged recovery times.

The potential clinical harms of using these criteria may include:

- Inherent risk of procedure: There are inherent risks of imaging, including cumulative radiation exposure, contrast, allergy, nephrotoxicity, and contrast extravasation into surrounding tissues.⁶⁻⁹
- Potential danger to pregnancy: CT imaging completed during pregnancy confers a dose of ionizing radiation to the fetus and is generally only utilized when the potential benefits of this specific imaging modality outweigh the risks to the pregnancy.¹⁰ Fetal risk includes fetal demise, intrauterine growth restriction, microcephaly, delayed intellectual development, risk of childhood cancer, and fetal thyroid injury.¹⁰
- Increased healthcare costs and complications from the inappropriate use of additional interventions.¹¹

The clinical benefits of using these criteria include:

- Planning of transcatheter aortic valve replacement (TAVR): Cardiac CT is established for TAVR to assess potential complications and to provide procedural guidance. Cardiac CT is also used for annular assessment.¹²
- Detect subclinical disease.¹³
- Monitor disease progression.¹³
- Enhanced overall patient satisfaction and healthcare experience.

This policy includes provisions for expedited reviews and flexibility in urgent cases to mitigate risks of delayed access. Evidence-based criteria are

employed to prevent inappropriate denials, ensuring that patients receive medically necessary care. The criteria aim to balance the need for effective treatment with the minimization of potential harms, providing numerous clinical benefits in helping avoid unnecessary complications from inappropriate care.

In addition, the use of these criteria is likely to decrease inappropriate denials by creating a consistent set of review criteria, thereby supporting optimal patient outcomes and efficient healthcare utilization.

Medical Necessity Criteria

Indications

→ **Computed tomography (CT), cardiac with contrast** is considered appropriate if **ANY** of the following is **TRUE**¹⁴:

- ◆ Documented or suspected neoplastic conditions of the heart (including cardiac masses or mass-like conditions); **OR**
- ◆ Infection or an infectious disorder, including infective endocarditis; **OR**
- ◆ Cardiac trauma-related conditions, including iatrogenic injury¹⁵; **OR**
- ◆ Cardiovascular conditions, known or suspected, including **ANY** of the following:
 - Suspected intracardiac thrombus, mass, aneurysm, or pseudoaneurysm when ECHO is indeterminate¹⁶; **OR**
 - Cardiomyopathies including **ANY** of the following:
 - Hypertrophic cardiomyopathy¹⁷; **OR**
 - Suspected arrhythmogenic cardiomyopathy of ventricular origin; **OR**
- ◆ Preoperative or pre-treatment evaluation including **ANY** of the following:
 - Atrial septal defect/patent foramen ovale (ASD/PFO) closure if TEE is indeterminate; **OR**
 - Aortic root replacement; **OR**
 - Pacemaker placement planning, including the evaluation of coronary vein before biventricular pacing; **OR**
 - Pulmonary vein ablation therapy for cardiac dysrhythmia; **OR**
 - Surgical valve replacement; **OR**

- Surgical myectomy or septal ablation hypertrophic cardiomyopathy; **OR**
- Transcatheter left atrial appendage occlusion; **OR**
- Planning for aortic endovascular valve replacement; **OR**
- Post-procedure follow-up or complication to evaluate complications of valve repair or replacement (open or endovascular), including **ANY** of the following:
 - Leaflet thrombosis; **OR**
 - Pannus formation; **OR**
 - Paravalvular leak; **OR**
 - Pseudoaneurysms; **OR**
 - Root abscess; **OR**
- Ventricular assist devices; **OR**
- Pre-procedural planning for atrial fibrillation-related procedures¹⁸; **OR**
 - Left atrial ablation (pulmonary vein isolation); **OR**
 - Left atrial appendage endovascular occlusion; **OR**
 - Electrical cardioversion or Pharmacologic cardioversion when an indicated TEE has a contraindication or is unable to be completed; **OR**
- Planned transcatheter treatment and the patient has valvular heart disease with **ANY** of the following:
 - Mitral replacement or repair; **OR**
 - Pulmonary replacement or repair; **OR**
 - Transcatheter aortic; **OR**
 - Tricuspid replacement or repair; **OR**
- ◆ Congenital anomalies and variants (e.g., cardiac, vascular) including **ANY** of the following as indicated in cited references^{14, 19-20}:
 - **ANY** of the following:
 - Aortic and pulmonary anomalies; **OR**
 - Atrial and ventricular septal defects; **OR**
 - Coronary artery anomalies; **OR**
 - Left-sided cardiac obstructive disorders; **OR**
 - Right-sided cardiac obstructive disorders; **OR**
 - Systemic and pulmonary venous anomalies; **OR**

- Other complex structural disorders of the cardiac chambers, morphology, and valves (e.g., heterotaxy); **OR**
- Follow-up of corrected or palliated congenital heart disease and assessment of postoperative complications (e.g., shunt or conduit stenosis, thrombosis, pseudoaneurysms) in children and adults; **OR**
- Postoperative evaluation of corrected or palliated congenital heart disease, including **ANY** of the following:
 - Pseudoaneurysms; **OR**
 - Stenosis (shunt/conduit); **OR**
 - Thrombosis; **OR**
- ◆ Repeat imaging (defined as repeat request following recent imaging of the same anatomic region with the same modality), in the absence of established guidelines, will be considered reasonable and necessary if **ANY** of the following is **TRUE**:
 - New or worsening symptoms, such that repeat imaging would influence treatment; **OR**
 - One-time clarifying follow-up of a prior indeterminate finding; **OR**
 - In the absence of change in symptoms, there is an established need for monitoring which would influence management.

→ **Computed tomography (CT), cardiac without contrast** is considered appropriate if **ANY** of the following is **TRUE**¹⁴:

- ◆ Cardiac surgical preoperative planning; **OR**
- ◆ Detection or evaluation of **ANY** of the following:
 - Ascending aorta; **OR**
 - Calcification of coronary arteries when there is no pre-test knowledge of sufficiently extensive calcification of the suspect coronary segment that would diminish the interpretive value²; **OR**
 - Cardiac masses; **OR**
 - Cardiac valves; **OR**
 - Pericardium; **OR**
- ◆ Repeat imaging (defined as repeat request following recent imaging of the same anatomic region with the same modality), in

the absence of established guidelines, will be considered reasonable and necessary if **ANY** of the following is **TRUE**:

- New or worsening symptoms, such that repeat imaging would influence treatment; **OR**
- One-time clarifying follow-up of a prior indeterminate finding; **OR**
- In the absence of change in symptoms, there is an established need for monitoring which would influence management.

Non-Indications

→ **Computed tomography (CT), cardiac** is not considered appropriate if **ANY** of the following is **TRUE** if contrast is used:

- ◆ If contrast is used, history of anaphylactic allergic reaction to iodinated contrast media; **OR**
- ◆ The request is for a calcium scoring scan or electron beam CT (EBCT); **OR**
- ◆ Imaging is being performed for screening purposes in the absence of signs, symptoms or disease²⁻³; **OR**
- ◆ The anticipated results are not expected to provide new, additional information to that already previously obtained from other tests (e.g., stress myocardial perfusion images or cardiac ultrasound)²⁻³; **OR**
- ◆ It is anticipated that the patient may require invasive cardiac angiography for further diagnosis or for therapeutic intervention (e.g., angina decubitus, unstable angina, Prinzmetal angina, etc.)²⁻³; **OR**
- ◆ When imaging is used for cardiac evaluation if there is pre-test knowledge of sufficiently extensive calcification of the suspect coronary segment that would diminish the interpretive value.²⁻³

*NOTE: The referring professional and radiologist should discuss the risks and benefits of contrast media administration, including possible prophylaxis, in patients with chronic or worsening kidney disease or severe renal failure.²¹

**NOTE: CT in patients with claustrophobia should be requested at the discretion of the ordering provider.

***NOTE: CT in pregnant patients should be requested at the discretion of the ordering provider and obstetric care provider.

Disclaimer on Radiation Exposure in Pediatric Population

Due to the heightened sensitivity of pediatric patients to ionizing radiation, minimizing exposure is paramount. At Cohere, we are dedicated to ensuring that every patient, including the pediatric population, has access to appropriate imaging following accepted guidelines. Radiation risk is dependent mainly on the patient's age at exposure, the organs exposed, and the patient's sex, though there are other variables. The following technical guidelines are provided to ensure safe and effective imaging practices:

Radiation Dose Optimization: Adhere to the lowest effective dose principle for pediatric imaging. Ensure that imaging protocols are specifically tailored for pediatric patients to limit radiation exposure.^{8,22}

Alternative Modalities: Prioritize non-ionizing imaging options such as ultrasound or MRI when clinically feasible, as they are less likely to expose the patient to ionizing radiation. For instance, MRI or ultrasound should be considered if they are more likely to provide an accurate diagnosis than CT, fluoroscopy, or radiography.^{8,22}

Cumulative Dose Monitoring: Implement systems to track cumulative radiation exposure in pediatric patients, particularly for those requiring multiple imaging studies. Regularly reassess the necessity of repeat imaging based on clinical evaluation.^{8,22}

CT Imaging Considerations: When CT is deemed the best method for achieving a correct diagnosis, use the lowest possible radiation dose that still yields reliable diagnostic images.^{8,22}

Cohere Imaging Gently Guideline

The purpose of this guideline is to act as a potential override when clinically indicated to adhere to Imaging Gently and Imaging Wisely guidelines and As Low As Reasonably Possible (ALARA) principles.

Level of Care Criteria

Inpatient or Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
75571	Computed tomography (CT) of heart; without contrast material, with quantitative evaluation of coronary calcium
75572	Computed tomography (CT), heart; with contrast material, for evaluation of cardiac structure and morphology (including 3-dimensional [3D] image postprocessing, assessment of cardiac function, and evaluation of venous structures, if performed)
75573	Computed tomography (CT), heart; with contrast material, for evaluation of cardiac structure and morphology in the setting of congenital heart disease (including 3D image postprocessing, assessment of LV cardiac function, RV structure and function and evaluation)
76380	Computed tomography, limited or localized follow-up study
S8092	Electron beam computed tomography (also known as EBCT or Ultrafast CT)

Disclaimer: G, S, I, and N Codes are non-covered per CMS guidelines due to their experimental or investigational nature.

Medical Evidence

Baldassarre et al. (2022) conducted a state-of-the-art review on the advances in multimodality imaging in cardio-oncology. Cardiac computed tomography (CT) is used to evaluate cardiac tumors, pericardial conditions, valve functionality/disorders, and preplanning for transcatheter valve interventions. The modality can produce imaging quickly and is widely available. In addition, cardiac CT can be assessed for non-cardiovascular consequences of radiation exposure. These include the identification of a porcelain aorta, detection of carotid artery disease, and evaluation for radiation-induced pulmonary fibrosis, all of which can elevate the risks associated with surgical interventions. Complementary imaging modalities such as contrast-enhanced cardiac CT and positron emission tomography (PET) with 18F-fluorodeoxyglucose (FDG) can aid in distinguishing between benign lesions and malignant cardiac tumors, mainly when cardiac magnetic resonance (CMR) evaluation is not feasible.²³

Grandhi et al. (2022) performed a study that sought to assess the efficacy of coronary artery calcium (CAC) as an initial diagnostic modality for excluding obstructive coronary artery disease (CAD). The study specifically examined the utilization of CAC to rule out obstructive CAD in the emergency department (ED). A total of 2902 participants were identified from an extensive registry of patients admitted to the ED due to acute chest pain and deemed at low to intermediate risk for acute coronary syndrome. Fifty-six percent had a CAC score of 0. The diagnosis among participants included CAD (4.6%), non-obstructive CAD (3.9%), and obstructive CAD (0.7%). Among participants with a CAC score greater than 0, obstructive CAD was reported in 23%. The authors conclude that implementing CAC testing at the outset of CP evaluation may enhance patient triage by determining who can safely delay further testing and invasive procedures.²⁴

Korsholm et al. (2020) published a review of expert recommendations on cardiac CT for planning transcatheter left atrial appendage occlusion. Guidance is provided on preparing for, conducting, reconstructing, and interpreting cardiac CT scans before left atrial appendage occlusion (LAAO) procedures. This presents a consistent protocol for physicians seeking to

integrate 3D cardiac CT seamlessly into their workflow for LAAO. Despite the benefits associated with cardiac CT, widespread implementation before procedures has been difficult. Challenges include the absence of a standardized imaging protocol, limited familiarity with image and software adjustments, and apprehensions regarding radiation exposure, contrast utilization, and financial considerations. Before the LAAO procedure, cardiac CT should be conducted to assess the anatomical suitability, accurately measuring LAA dimensions to aid in device selection and procedural planning, and confirm the absence of LAA thrombus. Cardiac CT holds promise as a potential replacement for the current gold standard in preprocedural planning for LAAO.²⁵

References

1. Centers for Medicare and Medicaid Services (CMS). National coverage determination (NCD): Computed tomography (CT) (220.1). Effective Date March 12, 2008. Accessed September 19, 2024. <https://www.cms.gov/medicare-coverage-database/search.aspx>.
2. Centers for Medicare and Medicaid Services (CMS). Local coverage determination (LCD): Cardiac computed tomography (CCT) and coronary computed tomography angiography (CCTA) (L33559). Revision Effective Date April 1, 2022. Accessed September 19, 2024. <https://www.cms.gov/medicare-coverage-database/search.aspx>.
3. Centers for Medicare and Medicaid Services (CMS). Local coverage determination (LCD): Cardiac computed tomography (CCT) and coronary computed tomography angiography (CCTA) (L33947). Revision Effective Date October 3, 2024. Accessed March 18, 2025. <https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?lcid=33947&ver=23&bc=0>
4. Centers for Medicare and Medicaid Services (CMS). Local coverage determination (LCD): Coronary computed tomography angiography (CCTA) (L35121). Revision Effective Date November 30, 2023. Accessed September 19, 2024. <https://www.cms.gov/medicare-coverage-database/search.aspx>.
5. Centers for Medicare and Medicaid Services (CMS). Local coverage determination (LCD): Cardiac computed tomography and angiography (CCTA) (L33423). Revision Effective Date April 6, 2023. Accessed September 19, 2024. <https://www.cms.gov/medicare-coverage-database/search.aspx>.
6. Zhang F, Lu Z, Wang F. Advances in the pathogenesis and prevention of contrast-induced nephropathy. *Life sciences*. 2020 Oct 15;259:118379.
7. Rudnick MR, Leonberg-Yoo AK, Litt HI, Cohen RM, Hilton S, Reese PP. The controversy of contrast-induced nephropathy with intravenous contrast: what is the risk?. *American Journal of Kidney Diseases*. 2020 Jan 1;75(1):105-13.
8. The Image Gently Alliance. Procedures – image gentle and CT scans. Updated 2014. Accessed June 26, 2024. <https://www.imagegently.org/Procedures/Computed-Tomography>.
9. Summers LN, Harry ML, Colling KP. Evaluating our progress with trauma transfer imaging: repeat CT scans, incomplete imaging, and delayed

- definitive care. *Emergency Radiology*. 2021 Oct;28(5):939–48.
10. Nguyen T, Bhosale PR, Cassia L, Surabhi V, Javadi S, Milbourne A, Faria SC. Malignancy in pregnancy: Multimodality imaging and treatment. *Cancer*. 2023 May 15;129(10):1479–91.
 11. Kjelle E, Brandsæter IØ, Andersen ER, Hofmann BM. Cost of low-value imaging worldwide: a systematic review. *Applied Health Economics and Health Policy*. 2024 Mar 1:1–7.
 12. Gulsin GS, McVeigh N, Leipsic JA, et al. Cardiovascular CT and MRI in 2020: Review of key articles. *Radiology*. 2021 Nov;301(2):263–277. doi: 10.1148/radiol.2021211002. PMID: 34491130.
 13. Perone F, Bernardi M, Santos-Gallego CG, et al. Role of cardiovascular imaging in risk assessment: Recent advances, gaps in evidence, and future directions. *J Clin Med*. 2023 Aug 26;12(17):5563. doi: 10.3390/jcm12175563. PMID: 37685628; PMCID: PMC10487991.
 14. American College of Radiology (ACR), North American Society of Cardiovascular Imaging (NASCI), Society for Pediatric Radiology (SPR). ACR–NASCI–SPR practice parameter for the performance and interpretation of cardiac computed tomography (CT) – resolution 45. Updated 2021. Accessed March 20, 2024. <https://www.acr.org/-/media/ACR/Files/Practice-Parameters/CardiacCT.pdf>.
 15. Expert Panels on Cardiac Imaging and Thoracic Imaging, Stojanovska J, Hurwitz LM, et al. ACR appropriateness criteria – blunt chest trauma, suspected cardiac injury. *J Am Coll Radiol*. 2020 Nov;17(11S):S380–S390. doi: 10.1016/j.jacr.2020.09.012. PMID: 33153551.
 16. Expert Panels on Vascular Imaging and Cardiac Imaging, Parenti VG, Vijay K, et al. ACR appropriateness criteria – workup of noncerebral systemic arterial embolic source. *J Am Coll Radiol*. 2023 May;20(5S):S285–S300. doi: 10.1016/j.jacr.2023.02.005. PMID: 37236749.
 17. Expert Panel on Cardiac Imaging, Rajiah P, Kirsch J, et al. ACR appropriateness criteria – nonischemic myocardial disease with clinical manifestations (ischemic cardiomyopathy already excluded). *J Am Coll Radiol*. 2021 May;18(5S):S83–S105. doi: 10.1016/j.jacr.2021.01.019. PMID: 33651982.
 18. Expert Panel on Cardiac Imaging, Agarwal PP, Nasr LA, et al. ACR appropriateness criteria – preprocedural planning for left atrial procedures in atrial fibrillation. Updated 2023. Accessed March 6, 2024. <https://acsearch.acr.org/docs/3194787/Narrative>.
 19. Sachdeva R, Valente AM, Armstrong AK, et al. ACC/AHA/ASE/HRS/ISACHD/SCAI/SCCT/SCMR/SOPE 2020 appropriate

- use criteria for multimodality imaging during the follow-up care of patients with congenital heart disease: A report of the American College of Cardiology Solution Set Oversight Committee and Appropriate Use Criteria Task Force, American Heart Association, American Society of Echocardiography, Heart Rhythm Society, International Society for Adult Congenital Heart Disease, Society for Cardiovascular Angiography and Interventions, Society of Cardiovascular Computed Tomography, Society for Cardiovascular Magnetic Resonance, and Society of Pediatric Echocardiography. *J Am Coll Cardiol*. 2020 Feb 18;75(6):657–703. doi: 10.1016/j.jacc.2019.10.002. PMID: 31918898.
20. Stout KK, Daniels CJ, Aboulhosn JA, et al. 2018 AHA/ACC guideline for the management of adults with congenital heart disease: A report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *J Am Coll Cardiol*. 2019 Apr 2;73(12):e81–e192. doi: 10.1016/j.jacc.2018.08.1029. PMID: 30121239.
 21. Davenport MS, Perazella MA, Yee J, et al. Use of Intravenous Iodinated Contrast Media in Patients with Kidney Disease: Consensus Statements from the American College of Radiology and the National Kidney Foundation. *Radiology*. 2020;294(3):660–668. doi: 10.1148/radiol.2019192094.
 22. National Cancer Institute. Radiation risks and pediatric computed tomography (CT): A guide for health care. Updated September 4, 2018. Accessed June 26, 2024. <https://www.cancer.gov/about-cancer/causes-prevention/risk/radiation/pediatric-ct-scans>.
 23. Baldassarre LA, Ganatra S, Lopez-Mattei J, et al. Advances in multimodality imaging in cardio-oncology: JACC state-of-the-art review. *J Am Coll Cardiol*. 2022 Oct 18;80(16):1560–1578. doi: 10.1016/j.jacc.2022.08.743. PMID: 36229093.
 24. Grandhi GR, Mszar R, Cainzos-Achirica M, et al. Coronary calcium to rule out obstructive coronary artery disease in patients with acute chest pain. *JACC Cardiovasc Imaging*. 2022 Feb;15(2):271–280. doi: 10.1016/j.jcmg.2021.06.027. PMID: 34656462.
 25. Korsholm K, Berti S, Iriart X, et al. Expert recommendations on cardiac computed tomography for planning transcatheter left atrial appendage occlusion. *JACC Cardiovasc Interv*. 2020 Feb 10;13(3):277–292. doi: 10.1016/j.jcin.2019.08.054. PMID: 31678086.

Clinical Guideline Revision History/Information

Original Date: October 3, 2024		
Review History		
Version 2	3/18/2025	<ul style="list-style-type: none">• Updated policy per CMS revisions for 10/3/2024• Updated Effective date• Updated Links and Bookmarks