04-70450-07

Original Effective Date: 06/15/15

Reviewed: 10/23/25

Revised: 11/15/25

Subject: Computed Tomography Angiography (CTA) Chest (non coronary)

THIS MEDICAL COVERAGE GUIDELINE IS NOT AN AUTHORIZATION, CERTIFICATION, EXPLANATION OF BENEFITS, OR A GUARANTEE OF PAYMENT, NOR DOES IT SUBSTITUTE FOR OR CONSTITUTE MEDICAL ADVICE. ALL MEDICAL DECISIONS ARE SOLELY THE RESPONSIBILITY OF THE PATIENT AND PHYSICIAN. BENEFITS ARE DETERMINED BY THE GROUP CONTRACT, MEMBER BENEFIT BOOKLET, AND/OR INDIVIDUAL SUBSCRIBER CERTIFICATE IN EFFECT AT THE TIME SERVICES WERE RENDERED. THIS MEDICAL COVERAGE GUIDELINE APPLIES TO ALL LINES OF BUSINESS UNLESS OTHERWISE NOTED IN THE PROGRAM EXCEPTIONS SECTION.

Position Statement	Billing/Coding	Reimbursement	Program Exceptions	<u>Definitions</u>	Related Guidelines
<u>Other</u>	References	<u>Updates</u>			

DESCRIPTION:

Computed tomography angiography (CTA) is an imaging procedure performed for characterizing vascular anatomy, diagnosing vascular diseases, planning treatment for vascular disease and assessing the effectiveness of vascular treatment. CTA may be performed with or without contrast material.

Summary and Analysis of Evidence: Computed tomography (CT) is a frequently used imaging modality for the diagnosis and evaluation of many thoracic diseases. CT is a radiologic modality for evaluating disorders of the thoracic including, but limited to disorders and conditions within the chest including, but not limited to cancer, lung cancer screening, and pulmonary emboli (ACR-ASNR-SPR, 2023).

Angiography provides accurate information about the site of dissection, branch artery involvement, and communication of the true and false lumens. Additionally, angiographic and catheter-based techniques allow for evaluation and treatment of coronary artery and aortic branch (visceral and limb artery) disease, as well as assessment of aortic valve and left ventricular function (Hiratzka et al 2010).

POSITION STATEMENT:

Computed tomography angiography (CTA) of the chest (non coronary) **meets the definition of medical necessity** for the following:

Suspected pulmonary embolism (PE)

- High risk for pulmonary embolism (PE) based on shock or hypotension.
- Positive D-dimer.

Vascular disease

- Superior vena cava (SVC) syndrome
- Subclavian steal syndrome after positive or inconclusive ultrasound
- Thoracic outlet syndrome
- Takayasu's arteritis
- Clinical concern for acute aortic dissection
 - Sudden painful ripping sensation in the chest or back and may include:
 - New diastolic murmur
 - Cardiac tamponade
 - Distant heart sounds
 - Hypotension or shock.

Initial/Screening for Thoracic Aortic Disease

- Echocardiogram or chest x-ray show aneurysm
- Initial study for a suspected aneurysm
- Screening of first-degree relatives of individuals with a thoracic aortic aneurysm (defined as > 50% above normal) or dissection
 - Known connective tissue disease or genetic conditions that predispose to aortic aneurysm or dissection (e.g., Marfan syndrome, Ehlers Danlos or Loeys-Dietz syndromes).
- Screening of the thoracic aorta after a diagnosis of a bicuspid aortic valve (dilation of the ascending aorta may not be seen on echocardiogram)
 - o If normal, re-image every three to five years.
- Screening of first-degree relatives of members with a bicuspid aortic valve
- Turner's syndrome Screen for coarctation or aneurysm of the thoracic aorta
 - o If normal results, screen every 5-10 years
 - o If abnormal, screen annually.
- Suspected vascular cause of dysphagia or expiratory wheezing with other imaging is suggestive or inconclusive.

Follow-up after established Thoracic Aneurysm

- Six months follow-up after initial finding of a dilated thoracic aorta, for assessment of rate of change
 - Aortic Root or Ascending Aorta (in cm)
 - 3.5 to 4.4 Annual
 - 4.5 to 5.5 or growth rate > 0.5 cm/year Every 6 months

- o Genetically mediated (Marfans syndrome, Aortic Root or Ascending Aorta) (in cm)
 - 3.5 to 4.4 Annual
 - 4.5 to 5.0 or growth rate > 0.5 cm/year Every 6 months
 - Surgery generally recommended over 5.0 cm
- Descending Aorta (in cm)
 - 4.0 to 5.0 Annual
 - 5.0 to 6.0 Every 6 months.
- Follow-up post medical treatment of aortic dissection:
 - Acute dissection: 1 month, 6 months, then annually
 - o Chronic dissection: annually.
- Follow-up post either root repair or AVR plus ascending aortic root/arch repair: baseline post-op, then annually
- Re-evaluation of known ascending aortic dilation or history of aortic dissection with a change in clinical status or cardiac exam or when findings may alter management.

Congenital malformations

- Thoracic malformation on other imaging (e.g., chest x-ray, echocardiogram, GI study, or inconclusive CT)
- Congenital heart disease with pulmonary hypertension
- Pulmonary sequestration.

Pulmonary hypertension (based on other testing)

- Echocardiogram
- Right heart catherization.

Atrial fibrillation (with ablation planned)

Preoperative/procedural evaluation

Postoperative or post procedural evaluation

- Post-operatives complications
- Routine post-operatives
 - o Thoracic endovascular **or open surgical** aneurysm repair
 - 1 month
 - More frequent follow-up/possible intervention if complication detected

If stable, annual for 5 years.

BILLING/CODING INFORMATION:

CPT Coding:

71275	Computed tomographic angiography, chest (noncoronary), with contrast
	material(s), including noncontrast images, if performed, and image
	postprocessing

REIMBURSEMENT INFORMATION:

Refer to section entitled **POSITION STATEMENT**.

Re-imaging or additional imaging due to poor contrast enhanced exam or technically limited exam is the responsibility of the imaging provider.

LOINC Codes:

The following information may be required documentation to support medical necessity: physician history and physical, physician progress notes, plan of treatment and reason for computed tomography angiography (CTA) of the chest (non coronary).

Documentation Table	LOINC	LOINC	LOINC Time Frame Modifier Codes
	Codes	Time Frame	Narrative
		Modifier Code	
Physician history and	28626-0	18805-2	Include all data of the selected type that
physical			represents observations made six
			months or fewer before starting date of
			service for the claim
Attending physician	18741-9	18805-2	Include all data of the selected type that
progress note			represents observations made six
			months or fewer before starting date of
			service for the claim
Plan of treatment	18776-5	18805-2	Include all data of the selected type that
			represents observations made six
			months or fewer before starting date of
			service for the claim
Radiology reason for	18785-6	18805-2	Include all data of the selected type that
study			represents observations made six
			months or fewer before starting date of
			service for the claim
Radiology comparison	18779-9	18805-2	Include all data of the selected type that
study-date and time			represents observations made six
			months or fewer before starting date of
			service for the claim

Radiology comparison study observation	18834-2	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology-study observation	18782-3	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology-impression	19005-8	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology study- recommendation (narrative)	18783-1	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim

PROGRAM EXCEPTIONS:

Federal Employee Plan (FEP): Follow FEP guidelines.

Medicare Advantage products: No Local Coverage Determination (LCD) were found at the time of the last guideline reviewed date. The following National Coverage Determination (NCD) was reviewed on the last guideline reviewed date: Computed Tomography (220.1), located at cms.gov.

If this Medical Coverage Guideline contains a step therapy requirement, in compliance with Florida law 627.42393, members or providers may request a step therapy protocol exemption to this requirement if based on medical necessity. The process for requesting a protocol exemption can be found at Coverage Protocol Exemption Request.

DEFINITIONS:

No guideline specific definitions apply.

RELATED GUIDELINES:

Computed Tomography Angiography (CTA) Abdomen and Pelvis, 04-70450-04
Computed Tomography Angiography (CTA) Brain (Head), 04-70450-05
Computed Tomography Angiography (CTA) Lower Extremity, 04-70450-09
Computed Tomography Angiography (CTA) Neck, 04-70450-06
Computed Tomography Angiography (CTA) Upper Extremity, 04-70450-08

OTHER:

None

REFERENCES:

- 1. ACR-NASCI-SIR-SPR Practice Guideline for the Performance and Interpretation of Body Computed Tomography Angiography (CTA), 2021.
- 2. American College of Radiology (ACR) Appropriateness Criteria® Suspected Pulmonary Embolism, 2022.
- 3. American College of Radiology ACR Appropriateness Criteria® Procedural Planning for Transcatheter Aortic Valve Replacement, 2023.
- 4. Anderson DR, Kahn SR, Rodger MA et al. Computed tomographic pulmonary angiography vs ventilation-perfusion lung scanning in patients with suspected pulmonary embolism: a randomized controlled trial. JAMA 2007; 298(23): 2743-1753.
- 5. Ascha M, Renapurkar RD, Tonelli AR. A review of imaging modalities in pulmonary hypertension. Ann Thorac Med. 2017; 12(2):61–73.
- 6. Erbel R, Aboyans V, Boileau C, Bossone E et al. 2014 ESC Guidelines on the diagnosis and treatment of aortic diseases: Document covering acute and chronic aortic diseases of the thoracic and abdominal aorta of the adult. The Task Force for the Diagnosis and Treatment of Aortic Diseases of the European Society of Cardiology (ESC). Eur Heart J. 2014 Nov 1;35(41):2873-926.
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- 8. Hiratzka LF, Bakris GL, Beckman JA et al. 2010 ACCF/AHA/AATS/ACR/ASA/SCA/SCAI/SIR/STS/SVM Guidelines for the diagnosis and management of patients with thoracic aortic disease. A Report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines, American Association for Thoracic Surgery, American College of Radiology, American Stroke Association, Society of Cardiovascular Anesthesiologists, Society for Cardiovascular Angiography and Interventions, Society of Interventional Radiology, Society of Thoracic Surgeons, and Society for Vascular Medicine. J Am Coll Cardiol 2010 Apr 6;55(14): e27-e129.
- 9. Karaosmanoglu AD, Khawaja RD, Onur MR, et al. CT and MRI of aortic coarctation: Pre- and postsurgical findings. AJR Am J Roentgenol. March 2015; 204(3): W224-33.
- 10. Keser G, Direskeneli H, Aksu K. Management of Takayasu arteritis: a systematic review. Rheumatology. 2014; 53(5):793–801.
- Konstantinides SV, Torbicki A, Agnelli G, et al. 2014 ESC Guidelines on the diagnosis and management of acute pulmonary embolism: The Task Force for the Diagnosis and Management of Acute Pulmonary Embolism of the European Society of Cardiology (ESC). Euro Heart J. 2014; 35(43):3033–3080.
- 12. Long Q, Zha Y, Yang Z. Evaluation of pulmonary sequestration with multidetector computed tomography angiography in a select cohort of patients: A retrospective study. Clinics (Sao Paul). 2016; 71(7):392–398.
- 13. Osiro S, Zurada A, Gielecki J, et, al. A review of subclavian steal syndrome with clinical correlation. Med Sci Monit. 2012;18(5): RA57-RA63.
- 14. Pascall E, Tulloh RM. Pulmonary hypertension in congenital heart disease. Future Cardiol. 2018; 14(4): 343–353.

- 15. Poletto E, Mallon MG, Stevens RM, et al. Imaging review of aortic vascular rings and pulmonary sling. J Am Osteopath Coll Radiol. 2017; 6(2):5-14.
- 16. Potter BJ, Pinto DS. Subclavian Steal Syndrome. Circulation. 2014; 129:2320–2323.
- 17. Povlsen S, Povlsen B. Diagnosing thoracic outlet syndrome: Current approaches and future directions. Diagnostics (Basel). 2018; 8(1):21.
- 18. Rose-Jones LJ, Mclaughlin VV. Pulmonary hypertension: Types and treatments. Curr Cardiol Rev. 2015; 11(1):73-79.
- 19. Stein PD, Fowler SE, Goodman LR et al. Multidetector computed tomography for acute pulmonary embolism. New England Journal of Medicine 2006; 354(22): 17-27.

COMMITTEE APPROVAL:

This Medical Coverage Guideline (MCG) was approved by the Florida Blue Medical Policy and Coverage Committee on 10/23/25.

GUIDELINE UPDATE INFORMATION:

06/15/15	New Medical Coverage Guideline.
07/15/16	Revision; added information related to: chest CTA and pulmonary embolism (PE), CTA and
	thoracic aortic aneurysms and CTA and coarctation of the aorta. Updated references.
04/15/18	Revision; revised position statement. Updated references.
08/15/20	Review/revision. Revised and expanded criteria for CTA chest (non coronary). Updated
	references.
05/15/22	Review: Position statements and references updated.
07/01/22	Revision to Program Exceptions section.
09/30/23	Review: position statements and references updated.
11/15/24	Review; no change to position statement. Updated references.
11/15/25	Review; no change to position statement.