

Subject: MCR Chest CTA (71275)		Original Effective Date: 12/13/17
Policy Number: 613	Revision Date(s): 11/6/18	
Review Date: 12/13/17, 12/13/18		

DISCLAIMER

This Molina Clinical Review (MCR) is intended to facilitate the Utilization Management process. It expresses Molina's determination as to whether certain services or supplies are medically necessary, experimental, investigational, or cosmetic for purposes of determining appropriateness of payment. The conclusion that a particular service or supply is medically necessary does not constitute a representation or warranty that this service or supply is covered (i.e., will be paid for by Molina) for a particular member. The member's benefit plan determines coverage. Each benefit plan defines which services are covered, which are excluded, and which are subject to dollar caps or other limits. Members and their providers will need to consult the member's benefit plan to determine if there are any exclusion(s) or other benefit limitations applicable to this service or supply. If there is a discrepancy between this policy and a member's plan of benefits, the benefits plan will govern. In addition, coverage may be mandated by applicable legal requirements of a State, the Federal government or CMS for Medicare and Medicaid members. CMS's Coverage Database can be found on the CMS website. The coverage directive(s) and criteria from an existing National Coverage Determination (NCD) or Local Coverage Determination (LCD) will supersede the contents of this Molina Clinical Review (MCR) document and provide the directive for all Medicare members.

DESCRIPTION OF PROCEDURE/SERVICE/PHARMACEUTICAL

Computed tomography angiography (CTA) is a noninvasive procedure that enhances certain anatomic views of vascular structures. This procedure complements traditional angiography and allows reconstruction of the images in different planes and removal of surrounding structures, leaving only the vessels to be studied.

RECOMMENDATIONS

Aneurysm/Dissection

- Thoracic/thoracoabdominal aneurysm or dissection suspected by clinical history, such as hypertension, “tearing type” chest pain, or trauma
- Known vascular disease, such as prior surgical repair, extensive atherosclerosis, Takayasu’s arteritis, etc.

Embolism or other occlusions

- Suspected or known pulmonary embolism (excludes low risk * with negative D-Dimer)

Fistula

- Suspected or known arteriovenous malformation (e.g. after chest tube placement)

Stenosis

- Pulmonary hypertension
- Vascular insufficiency the neck or arms, subclavian steal with abnormal ultrasound
- Severe Aortic Stenosis evaluation
- Differentiate aortic aneurysms from tumors near the aorta

- Differentiate between vascular and nonvascular tumors
- Evaluate hemorrhage or trauma
- Congenital
- Coarctation, great vessel transposition, or other vascular abnormality suggested by abnormal imaging or EKG.
- AVM

Pre/Post Procedural

- Pre-operative or Pre procedural evaluation and the chest blood vessel detail is needed. (Examples: Breast reconstructive surgery, Transcatheter Aortic Valve replacement, Radio Frequency Ablation for Atrial Fibrillation, etc.)
- Post-operative/Post-procedural for routine recommended follow up or for potential post-operative complications.
- A repeat study may be needed to help evaluate a patient's progress after treatment procedure intervention or surgery. The reason for the repeat study and that it will affect care must be clear.

Combination

- Chest CTA and Abdomen/Pelvis CTA is appropriate for evaluation for possible TAVR (Transcatheter Aortic Valve Replacement) for Aortic Stenosis

ADDITIONAL CRITICAL INFORMATION

****Low risk of pulmonary embolism is defined as answering NO to all of the following criteria:***

- Clinical signs and symptoms of a DVT
- Pulmonary Embolism is the most likely diagnosis
- Heart rate is greater than 100 bpm.
- Had undergone surgery in the last 4 weeks or have been recently immobilized.
- Had a prior DVT or pulmonary embolism
- Hemoptysis
- Have an underlying malignancy

The above medical necessity recommendations are used to determine the best diagnostic study based on a patient's specific clinical circumstances. The recommendations were developed using evidence based studies and current accepted clinical practices. Medical necessity will be determined using a combination of these recommendations as well as the patient's individual clinical or social circumstances.

- Tests that will not change treatment plans should not be recommended.
- Same or similar tests recently completed need a specific reason for repeat imaging.

REFERENCES USED FOR DETERMINATIONS

1. Bettman MA, Lyders EM, Yucel K et al, Expert panel on Cardiac Imaging, American College of Radiology Appropriateness Criteria, Acute chest pain-suspected pulmonary embolism, accessed at http://www.acr.org/SecondaryMainMenuCategories/quality_safety/app_criteria/pdf/ExpertPanelonCardiovascularImaging/AcuteChestPainSuspectedPulmonaryEmbolism_UpdateinProgressDoc4.aspx August 23, 2011.
2. Miller, J.C., Greenfield, A.J., Cambria, R.P., & Lee, S.I. (2008). Aortic aneurysms Journal of the American College of Radiology, 5(5), 678-681. doi: 10.1016/j.jacr.2008.01.016.

3. American College of Radiology. (2014). ACR Appropriateness Criteria® Retrieved from <https://acsearch.acr.org/list>.
4. Anderson, E.R., Kahn, S.R., Rodger, M.A., Kovacs, M.J., Morris, T., Hirsch, A., . . . Wells, P.S. (2007). Computed tomographic pulmonary angiography vs. ventilation-perfusion lung scanning in patients with suspected pulmonary embolism. *JAMA*, 298(23), 2743-2753. doi: 10.1001/jama.298.23.2743.
5. Douma R.A., Gibson N.S., Gerdes V.E., Buller H.R., Wells P.S., Perrier A., LeGal G. (2009) Validity and clinical utility of the simplified Wells rule for assessing clinical probability for the and exclusion of pulmonary embolism. *Thromb Haemost.* 2009 Jan;101(1):197-200. <http://www.ncbi.nlm.nih.gov/pubmed/19132208>
6. Miller, J.C., Greenfield, A.J., Cambria, R.P., & Lee, S.I. (2008). Aortic aneurysms. *Journal of the American College of Radiology*, 5(5), 678-681. doi: 10.1016/j.jacr.2008.01.016.
7. Romano, M., Mainenti, P.P., Imbriaco, M., Amato, B., Markabaowi, K., Tamburrini, O., & Salvatore, M. (2004). Multidetector row CT angiography of the abdominal aorta and lower extremities in patients with peripheral arterial occlusive disease: Diagnostic accuracy and interobserver agreement. *Radiology*, 50(3), 303-308. doi: 10.1016/S0720-048X(03)00118-9.
8. Stein, P.D., Fowler, S.E., Goodman, L.R., et al. (2006). Multidetector computed tomography for acute pulmonary embolism. *The New England Journal of Medicine*, 354(22), 2317-2327. doi: 10.1056/NEJMoa052367.
9. Sameer Arora, MD, Jacob A. Misenheimer, MD, and Radhakrishnan Ramaraj, MD. Aortic Valve Replacement; Comprehensive Review and Present Status, *Tex Heart Inst J.* 2017 Feb; 44(1): 29–38. doi: 10.14503/THIJ-16-5852

CODING INFORMATION: THE CODES LISTED IN THIS POLICY ARE FOR REFERENCE PURPOSES ONLY. LISTING OF A SERVICE OR DEVICE CODE IN THIS POLICY DOES NOT IMPLY THAT THE SERVICE DESCRIBED BY THIS CODE IS COVERED OR NON-COVERED. COVERAGE IS DETERMINED BY THE BENEFIT DOCUMENT. THIS LIST OF CODES MAY NOT BE ALL INCLUSIVE.

	Description
71275	CT (Computed Tomography) Chest/Thorax without contrast)