I. POLICY

It is the policy of MedStar Health, Inc. to recognize the use of Computed Tomographic Angiography (CTA) of the Chest as appropriate and consistent with good medical practice when performed for the specific clinical indications listed in this policy. Coverage for this service is based upon medical necessity (refer to CRM.015.MH Medical Necessity) as detailed in this policy and according to the member’s specific benefit plan.

II. DEFINITIONS

Computed Tomographic Angiography (CTA) of the Chest - a non-invasive advanced radiological technology used for the imaging of the major vessels of the chest including the coronary arteries, aorta, pulmonary arteries, left subclavian artery, the brachiocephalic artery and the left common carotid artery.

III. PURPOSE

The purpose of this policy is to define the appropriate indications for coverage of CTA of the chest.

IV. SCOPE

This policy applies to various MedStar Health, Inc. Departments as indicated by the Benefit and Reimbursement Committee. These include but are not limited to: Medical Management, Benefit Configuration and Claims Departments.
IV.  PROCEDURE

A. Medical Description/Background

The “gold standard” used for diagnosing coronary artery disease (CAD) in symptomatic people has been the invasive procedure coronary angiography also known as cardiac catheterization.

CTA of the chest for cardiac assessment is a non-invasive procedure that is used for acquiring very fast images of the coronary vessels with an image acquisition time less than 20 seconds. CTA of the coronary arteries requires at least a 16 slice CT scanner to obtain images of the beating heart; however, 64 slice scanners are preferred to obtain high quality images. Performing multislice computed tomographic angiography (MSCTA) with a 64 slice scanner reduces the scanning time from 20 to 5 seconds. For non-cardiac assessment, the MSCTA scanner may have a capability of less than 16 slices. To further slow the patient’s heart rate to less than 60 beats per minute during the procedure, patients may take beta blockers, especially when undergoing the procedure with the slower 16 slice scanner. The MSCTA is considered a form of spiral CT and it differs from the Ultrafast/Electron Beam CT in that it uses x-ray versus the electron beam to create images. For coronary artery imaging, the resulting images show a high correlation with stenotic lesions normally found in diagnostic cardiac catheterizations and atheromas normally found on intracoronary ultrasound.

Additionally, in the instance of emergency evaluation of acute chest pain, it may be necessary to evaluate the patient for both cardiac and non-cardiac disease (e.g., pulmonary embolus or aortic dissection). Therefore, in the emergency evaluation of acute chest pain, when evaluation of the aorta, pulmonary vasculature and coronary circulation is ordered and performed there would be two separate evaluations/reports to support both services.

B. Indications

For cardiac assessment, a CTA is indicated for any of the following signs or symptoms:
- Emergency evaluation of acute chest pain
- Cardiac evaluation of a patient with chest pain syndrome (angina) as an alternative to cardiac catheterization when applicable and reason is specifically documented
- Management of a symptomatic patient with known coronary artery disease (e.g., post-stent, post coronary artery bypass graft)
• Detection of coronary artery disease in patients with new onset or newly diagnosed symptomatic clinical heart failure and no prior coronary artery disease
• Assessment of coronary or pulmonary venous anatomy
• Assessment of suspected congenital anomalies of coronary circulation
• Evaluation of patient with new or worsening coronary artery disease symptoms and documented past normal stress imaging study
• Diagnostic evaluation of a patient with current uninterpretable or equivocal stress imaging test results
• In lieu of routine invasive coronary angiography prior to non-coronary cardiac or aortic surgery in patients at low risk of concomitant coronary disease.

C. Limitations

• A physician or qualified non-physician practitioner must order the study.
• A physician or qualified non-physician practitioner must be present during the testing
• CTA is not covered for screening or asymptomatic patients.
• The selection of CTA must be made within the context of other testing modalities so that the resulting information facilitates the management decision, not merely adds a new layer of testing.
• Coverage of CTA for coronary artery assessment is limited to devices that process thin, high resolution slices (1 mm or less). The MSCTA scanner must have at least 16 slices per second capability, although 64 slices are preferable. For non-cardiac assessment, the MSCTA scanner may have a capability of less than 16 slices.
• The administration of beta-blockers and the monitoring of the patient by a cardiologist during the MSCTA are not separately payable services.
• The electron beam computer tomography (EBCT)/Ultrafast CT technology is not addressed in this policy since they are considered experimental/investigational.
• This test will be denied, on post-pay review, as not medically necessary when used for cardiac evaluation of a patient with extensive disease where there is pre-test knowledge of extensive calcification that would diminish the interpretive value.

D. Codes

The following codes for treatments and procedures applicable to this policy are included below for informational purposes. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement policy. Please refer to the member’s contract benefits in
effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.

**CPT Codes For Non-Coronary CTAs of the Chest Requiring MEDICALIS Processing and Reference Number**

<table>
<thead>
<tr>
<th>CPT Codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>71275</td>
<td>Computed tomographic angiography, chest (noncoronary), with contrast material(s), including noncontrast images, if performed, and image post processing <strong>(Medicalis Requirement)</strong></td>
</tr>
<tr>
<td>75571</td>
<td>Computed tomography, heart, without contrast material, with quantitative evaluations of coronary calcium <strong>(Medicalis Requirement)</strong></td>
</tr>
</tbody>
</table>

**CPT Codes for Coronary CTAs of the Chest (ICD 9/10 Diagnosis Coding for these CPT codes listed below)**

<table>
<thead>
<tr>
<th>CPT Codes</th>
<th>Description</th>
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<tbody>
<tr>
<td>75572</td>
<td>Computed tomography, heart, with contrast material, for evaluation of cardiac structure and morphology (including 3D image postprocessing, assessment of cardiac function, and evaluation of venous structures, if performed)</td>
</tr>
<tr>
<td>75573</td>
<td>Computed tomography, 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 of venous structures, if performed)</td>
</tr>
<tr>
<td>75574</td>
<td>Computed tomographic angiography, heart, coronary arteries and bypass grafts (when present), with contrast material; including 3D image postprocessing (including evaluation of cardiac structure and morphology, assessment of cardiac function, and evaluation of venous structures, if performed)</td>
</tr>
</tbody>
</table>

**ICD-9 Coding for Coronary CTAs of the Chest (CPT 75572-75574)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>164.1</td>
<td>Malignant neoplasm of heart</td>
</tr>
<tr>
<td>198.89</td>
<td>Secondary malignant neoplasm of other specified sites</td>
</tr>
<tr>
<td>212.7</td>
<td>Benign neoplasm of heart</td>
</tr>
<tr>
<td>411.0-411.89</td>
<td>Acute and subacute forms of ischemic heart disease or coronary syndromes</td>
</tr>
<tr>
<td>412</td>
<td>Old myocardial infarction</td>
</tr>
<tr>
<td>413.0-413.9</td>
<td>Angina pectoris</td>
</tr>
<tr>
<td>414.00-414.07</td>
<td>Coronary atherosclerosis</td>
</tr>
<tr>
<td>414.10-</td>
<td>Aneurysm and dissection of heart</td>
</tr>
</tbody>
</table>
414.19
414.4  Coronary atherosclerosis due to calcified coronary lesion
414.8-414.9  Other and unspecified chronic ischemic heart disease
422.0-422.99  Acute myocarditis
423.0-423.9  Diseases of pericardium
425.11-  Hypertrophic obstructive cardiomyopathy
425.18
425.4  Other primary cardiomyopathies
427.31-  Atrial fibrillation-ventricular flutter
427.42
428.0-428.9  Heart failure
441.00-441.9  Aortic aneurysm and dissection
745.0-745.9  Bulbus and cordis anomalies and anomalies of cardiac septal closure
746.00-746.9  Other congenital anomalies of heart
747.0  Patent ductus arteriosus
747.31-  Congenital anomalies of pulmonary artery
747.39
747.40-  Congenital anomalies of pulmonary venous connection -great veins
747.49  Chest pain
786.50-  Chest pain
786.59
786.9  Other symptoms involving respiratory system and chest
794.30-  Abnormal cardiovascular function studies or nonspecific
disease
794.31  abnormal electrocardiogram
996.71-  Other complications due to heart valve prosthesis/ other cardiac
disease, implant, or graft
V45.81  Postsurgical aortocoronary bypass status
V72.81  Pre-operative cardiovascular examination

ICD-10 Coding for Coronary CTAs of the Chest (CPT 75572-75574)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C38.0</td>
<td>Malignant neoplasm of heart, mediastinum, and pleura</td>
</tr>
<tr>
<td>C79.89</td>
<td>Secondary malignant neoplasm of unspecified site</td>
</tr>
<tr>
<td>D15.1</td>
<td>Benign neoplasm of heart</td>
</tr>
<tr>
<td>I20.0-I20.9</td>
<td>Angina pectoris</td>
</tr>
<tr>
<td>I24.0-I24.9</td>
<td>Other acute ischemic heart diseases</td>
</tr>
<tr>
<td>I25.10-I25.9</td>
<td>Chronic ischemic heart disease (including old myocardial infarction)</td>
</tr>
<tr>
<td>I31.0-I31.9</td>
<td>Diseases of pericardium</td>
</tr>
<tr>
<td>I40.0-I40.9</td>
<td>Acute myocarditis</td>
</tr>
<tr>
<td>I42.0-I42.2</td>
<td>Dilated and obstructive hypertrophic cardiomyopathy</td>
</tr>
<tr>
<td>I42.5</td>
<td>Other restrictive cardiomyopathy</td>
</tr>
</tbody>
</table>
I42.8-I42.9 Other and unspecified cardiomyopathy
I48.0-I48.92; Atrial and ventricular cardiac arrhythmias
I49.01-I49.9
I50.1-I50.9 Heart failure
I71.00-I71.01 Dissection of aorta (thoracic)
I71.1-I71.6 Thoracic aortic aneurysm
I71.8-I71.9 Unspecified aortic aneurysm
Q20.0-Q20.9 Congenital malformations of cardiac chambers and connections
Q21.0-Q21.9 Congenital malformations of cardiac septa
Q23.0-Q23.9 Congenital malformations of aortic and mitral valves
Q24.0-Q249 Other congenital malformations of heart
Q25.0-Q25.9 Congenital malformations of great arteries
Q26.0-Q26.4 Congenital malformations of great veins (thoracic)
R07.1-R07.9 Chest pain
R94.30- Abnormal results of cardiovascular function studies
R94.39

T82.01XA- Complications of cardiac vascular prosthetic devices, implants, and grafts (chest)
T82.399S
T82.847A Pain from cardiac prosth dev/grft, init
T82.847D Pain from cardiac prosth dev/grft, subs
T82.847S Pain from cardiac prosth dev/grft, sequela
Z01.810 Encounter for preprocedural cardiovascular examination
Z95.1 Presence of aortocoronary bypass graft

E. Variations

N/A

F. Quality Audit

Quality Audit monitors policy compliance and/or billing accuracy at the request of MedStar Health, Inc.’s Technology Assessment Committee or the Benefits Reimbursement Committee.

G. Records Retention

Records Retention for documents, regardless of medium, are provided within MedStar Health, Inc. Policy and Procedure CORP.028.MH Records Retention.
Unless otherwise mandated by Federal or State law, or unless required to be maintained for litigation purposes, any communications recorded pursuant to this Policy are maintained for a minimum of ten (10) years from the date of recording.

H. References

Medical Literature/Clinical Information

Regulatory/Government Sources
1. Centers for Medicare and Medicaid Services (CMS). National Coverage Determination (NCD) for Computed Tomography (220.1), Effective Date 3/12/2008. [Link]


3. Centers for Medicare and Medicaid Services (CMS). Medicare Learning Network Matters (MM6098) - Cardiac Computed Tomographic Angiography (CTA), Effective Date 3/12/2008. [Link]

**Disclaimer:**

MedStar Health, Inc. medical payment and prior authorization policies do not constitute medical advice and are not intended to govern or otherwise influence the practice of medicine. The policies constitute only the reimbursement and coverage guidelines of MedStar Health, Inc. and its affiliated managed care entities. Coverage for services varies for individual members in accordance with the terms and conditions of applicable Certificates of Coverage, Summary Plan Descriptions, or contracts with governing regulatory agencies.

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