### Covered

1. **Congenital coronary artery anomalies**
   a. For evaluation of suspected congenital anomalies of the coronary arteries

2. **Congestive Heart Failure/ cardiomyopathy/ left ventricular dysfunction**
   a. For exclusion of coronary artery disease in patients with left ventricular ejection fraction <55% in whom coronary artery disease has not been excluded as the etiology of the cardiomyopathy

3. **Evaluation of patients with suspected coronary artery disease including those with prior abnormal cardiac testing (MPI or stress echo)**
   a. Patients with abnormal MPI or stress echo within the preceding 60 days suspected to be false positive on the basis of low Coronary Heart Disease Risk (using standard methods of risk assessment such as the SCORE risk calculation)
   i. In the absence of a contraindication (excluding renal

The following diagnostic indications for CCTA may be covered when accompanied by pre-test considerations as well as supporting clinical data and prerequisite information:

**A. Congenital coronary artery anomalies**
   1. For evaluation of suspected congenital anomalies of the coronary arteries

**B. Congestive Heart Failure/ cardiomyopathy/ left ventricular dysfunction**
   1. For exclusion of coronary artery disease in patients with left ventricular ejection fraction <55% and low or moderate coronary heart disease risk (using standard methods of risk assessment, such as the SCORE risk calculation) in whom coronary artery disease has not been excluded as the etiology of the cardiomyopathy
   2. Patients with high coronary heart disease risk should undergo cardiac catheterization

**C. Suspected coronary artery disease in asymptomatic patients when Fractional Flow Reserve (FFR-CT) can be calculated in conjunction with imaging**
   1. Patients with high-risk of CAD (SCORE) who have not had evaluation of coronary artery disease (MPI, stress echo, cardiac PET, coronary CTA or cardiac catheterization) within the preceding three (3) years.

A. For symptomatic individuals who have a very low, low, or intermediate pretest probability of CAD, CCTA may be used in the following situations:
   1. Unable to perform either an exercise or pharmacologic imaging stress test
   2. Stress test (treadmill or imaging stress test) is uninterpretable, equivocal, or a false positive is suspected
   3. Replace performance of invasive coronary angiogram

B. For symptomatic individuals, evaluate post-CABG graft patency when only graft patency is a concern and imaging of the native coronary artery anatomy is not needed, such as in early graft failure

C. For symptomatic individuals with unsuccessful conventional coronary angiography

D. Additional Indications:
   1. Re-do CABG: To identify whether bypass grafts are located directly beneath the sternum, so that alternative ways to enter the chest can be planned
   2. Evaluate coronary artery anomalies and other complex congenital heart
<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
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<tbody>
<tr>
<td>Impairment and iodinated contrast agent hypersensitivity</td>
<td>Patients with moderate or high Coronary Heart Disease Risk should be referred for coronary arteriography; OR</td>
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<tr>
<td>Patients with equivocal MPI or stress echo</td>
<td>Patients with equivocal MPI or stress echo within the preceding 60 days who have low or moderate Coronary Heart Disease Risk (using standard methods of risk assessment such as the SCORE risk calculation)</td>
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<tr>
<td>i. In the absence of a contraindication (excluding renal impairment and iodinated contrast agent hypersensitivity)</td>
<td>Patients with high Coronary Heart Disease Risk should be referred for coronary arteriography</td>
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<td>ii. The resulting information from the CCTA should facilitate management decisions and not merely add a new layer of testing</td>
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<tr>
<td>Patients at moderate coronary heart disease risk</td>
<td>Patients at moderate coronary heart disease risk (using standard methods of risk assessment, such as the SCORE risk calculation) being evaluated for non-coronary artery cardiac surgery (including valvular and ascending aortic surgery) to avoid an invasive angiogram, where all the necessary pre-operative information can be obtained using cardiac CT</td>
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<tr>
<td>For evaluation of suspected congenital anomalies of the coronary arteries</td>
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<td>Patients with moderate or high risk of CAD (SCORE)</td>
<td>Patients with moderate or high risk of CAD (SCORE) who have a high risk occupation that would endanger others in the event of a myocardial infarction, (e.g. airline pilot, law-enforcement officer, firefighter, mass transit operator, bus driver) who have not had evaluation of coronary artery disease (MPI, stress echo, cardiac PET, coronary CTA or cardiac catheterization) within the preceding three (3) years.</td>
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<tr>
<td>2.</td>
<td>Patients with moderate or high risk of CAD (SCORE) who have a high risk occupation that would endanger others in the event of a myocardial infarction, (e.g. airline pilot, law-enforcement officer, firefighter, mass transit operator, bus driver) who have not had evaluation of coronary artery disease (MPI, stress echo, cardiac PET, coronary CTA or cardiac catheterization) within the preceding three (3) years.</td>
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<td>3. Patients with diseases/conditions with which coronary artery disease commonly coexist and who have not had evaluation of coronary artery disease (MPI, stress echo, cardiac PET, coronary CTA or cardiac catheterization) within the preceding three (3) years:</td>
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<td>i. Abdominal aortic aneurysm</td>
<td>i. Abdominal aortic aneurysm OR</td>
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<td>ii. Established and symptomatic peripheral vascular disease</td>
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<tr>
<td>iii. Prior history of cerebrovascular accident (CVA), transient ischemia attack (TIA), or carotid endarterectomy (CEA) or high grade carotid stenosis (&gt;70%)</td>
<td>iii. Prior history of cerebrovascular accident (CVA), transient ischemia attack (TIA), or carotid endarterectomy (CEA) or high grade carotid stenosis (&gt;70%) OR</td>
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<tr>
<td>iv. Chronic renal insufficiency or renal failure</td>
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<td>Patients who have undergone cardiac transplantation and have had no evaluation for coronary artery disease within the preceding one (1) year.</td>
<td>4. Patients who have undergone cardiac transplantation and have had no evaluation for coronary artery disease within the preceding one (1) year.</td>
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<td>Patients in whom a decision has been made to treat with interleukin 2.</td>
<td>5. Patients in whom a decision has been made to treat with interleukin 2.</td>
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<td>D. Suspected coronary artery disease in symptomatic patients who have not had evaluation of coronary artery disease (MPI, cardiac PET, stress echo, coronary CTA or cardiac catheterization) within the preceding sixty (60) days when Fractional Flow Reserve (FFR-CT) can be calculated in conjunction with imaging:</td>
<td>D. Suspected coronary artery disease in symptomatic patients who have not had evaluation of coronary artery disease (MPI, cardiac PET, stress echo, coronary CTA or cardiac catheterization) within the preceding sixty (60) days when Fractional Flow Reserve (FFR-CT) can be calculated in conjunction with imaging:</td>
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<td>i. With intermediate or high pretest probability of CAD</td>
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<tr>
<td>ii. With low or very low pretest probability of CAD and high risk of CAD (SCORE)</td>
<td>ii. With low or very low pretest probability of CAD and high risk of CAD (SCORE)</td>
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<tr>
<td>Disease of cardiac chambers or great vessels</td>
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<td>3. Anomalous coronary artery(ies)</td>
<td>3. Anomalous coronary artery(ies) suspected for diagnosis or to plan treatment and less than age 40 with a history that includes one or more of the following</td>
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<td>i. Persistent exertional chest pain and normal stress test</td>
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<td>ii. Full sibling(s) with history of sudden death syndrome before age 30 or with documented anomalous coronary artery</td>
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<td>iii. Resuscitated sudden death and contraindications for conventional coronary angiography</td>
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<td>4. Unexplained new onset of heart failure</td>
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<td>5. Evaluation of newly diagnosed congestive heart failure or cardiomyopathy</td>
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<td>i. No prior history of coronary artery disease, the ejection fraction is less than 50 percent, and low or intermediate risk on the pre-test probability assessment AND</td>
<td>i. No prior history of coronary artery disease, the ejection fraction is less than 50 percent, and low or intermediate risk on the pre-test probability assessment AND</td>
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<td>ii. No exclusions to cardiac CT angiography</td>
<td>ii. No exclusions to cardiac CT angiography</td>
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<td>iii. No cardiac catheterization, SPECT, cardiac PET, or stress echocardiogram has been performed since the diagnosis of congestive heart failure or cardiomyopathy</td>
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<td>6. Ventricular tachycardia (6 beat runs or greater) if CCTA will replace conventional invasive coronary angiography</td>
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<td>7. Equivocal coronary artery anatomy on conventional cardiac catheterization</td>
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</table>
2. Atypical symptoms: syncope, shortness of breath (dyspnea), neck, jaw, arm, epigastric or back pain, or sweating (diaphoresis)
   i. With moderate or high risk of CAD (SCORE)
3. Other symptoms; palpitation, dizziness, lightheadedness, near syncope, nausea, vomiting, anxiety, weakness, fatigue etc.
   i. With high risk of CAD (SCORE)
4. Patients with any cardiac symptom who have diseases/conditions with which coronary artery disease commonly coexists such as:
   i. Diabetes mellitus OR
   ii. Abdominal aortic aneurysm OR
   iii. Established and symptomatic peripheral vascular disease OR
   iv. Prior history of cerebrovascular accident (CVA), transient ischemia attack (TIA), or carotid endarterectomy (CEA) or high grade carotid stenosis (>70%) OR
   v. Chronic renal insufficiency or renal failure
5. Patients who have undergone cardiac transplantation.
6. Patients in whom a decision has been made to treat with interleukin 2.

E. Patients with suspected CAD and abnormal exercise treadmill test (performed without imaging) with low or moderate coronary heart disease risk (using standard methods of risk assessment such as the SCORE risk calculation) when Fractional Flow Reserve (FFR-CT) can be calculated in conjunction with imaging
   1. Abnormal finding on an exercise treadmill test include chest pain, ST segment change, abnormal BP response or complex ventricular arrhythmias.

F. Patients with abnormal MPI or stress echo within the preceding 60 days suspected to be false positive on the basis of low coronary heart disease risk (using standard methods of risk assessment such as the SCORE risk calculation)
   1. In the absence of a contraindication (excluding renal impairment and iodinated contrast agent

8. Newly diagnosed dilated cardiomyopathy
9. Preoperative assessment of the coronary arteries in patients who are going to undergo surgery for aortic dissection, aortic aneurysm, or valvular surgery if CCTA will replace conventional invasive coronary angiography“
10. Vasculitis/Takayasu’s/Kawasaki’s disease
11. Cardiac Trauma: Chest CTA (CPT®71275) and CCTA (CPT®75574) are useful in detecting aortic and coronary injury and can help in the evaluation of myocardial and pericardial injury
hypo sensitivities), patients with moderate or high coronary heart disease risk should be referred for coronary arteriography.

G. Patients with equivocal MPI or stress echo within the preceding 60 days who have low or moderate coronary heart disease risk (using standard methods of risk assessment such as the SCORE risk calculation).
1. In the absence of a contraindication (excluding renal impairment and iodinated contrast agent hypersensitivity), patients with high coronary heart disease risk should be referred for coronary arteriography.
2. The resulting information from the CCTA should facilitate management decisions and not merely add a new layer of testing.

H. Patients at moderate coronary heart disease risk (using standard methods of risk assessment, such as the SCORE risk calculation) being evaluated for non-coronary artery cardiac surgery (including valvular and ascending aortic surgery) to avoid an invasive angiogram, where all the necessary pre-operative information can be obtained using cardiac CT.

| Not Covered / Investigational and Not Medically Necessary | • Irregular heart rhythms  
• Multifocal Atrial Tachycardia (MAT)  
• Inability to lie flat  
• Body mass index of 40 or more  
• Inability to obtain a heart rate less than 65 beats per minute after beta-blockers  
• Inability to hold breath for at least 8 seconds  
• Renal Insufficiency  
• Asymptomatic patients and routine use in the evaluation of the coronary arteries following heart transplantation  
• CCTA should not be performed if there is extensive coronary calcification (calcium score >1000)  
• Evaluation of coronary stent patency (metal artifact limits accuracy) |
• Evaluation of left ventricular function following myocardial infarction or in chronic heart failure
• Evaluation of patients with postoperative native or prosthetic cardiac valves who have technically limited echocardiograms, MRI or TEE. Patients with indeterminate echocardiogram should undergo MUGA (CPT®78472 or CPT®78494) or cardiac MRI
• First test in evaluating symptomatic patients (e.g. chest pain)
• Irregular heart rhythms
• High pre-test probability for CAD—rather, these patients should undergo conventional coronary angiography, especially if an interventional procedure (e.g., PCI) is anticipated
• Identification of plaque composition and morphology
• Myocardial perfusion and viability studies
• Preoperative assessment for non-cardiac, nonvascular surgery
• Repeat or routine follow-up of CAD with CCTA

There is insufficient evidence to support routine use of Coronary Computed Tomography Angiography (CCTA) in the evaluation of the coronary arteries following heart transplantation.

**Payer Specific Requirements**

- CCTA exams are not covered by most healthcare insurers as a screening study, in the absence of signs, symptoms or known disease
- Selection of the optimal diagnostic work-up for cardiac evaluation should be made within the context of other available studies (which include treadmill stress test, stress myocardial perfusion imaging, stress echocardiography, cardiac MRI, cardiac PET imaging and invasive cardiac/coronary angiography), so that the resulting information facilitates patient

1. Must be ordered by a HAP/AHL Affiliated or Contracted Physician
2. Must be performed at a HAP/AHL Affiliated or Contracted Facility.
3. Must be authorized be a HAP Medical Director or designee, except for Medicare Complementary members with Medicare primary and HAP or AHL secondary.
echocardiography, cardiac MRI, cardiac PET imaging and invasive cardiac/coronary angiography, so that the resulting information facilitates patient management decisions and does not merely add a new layer of testing

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<th>Effective Date</th>
<th>10/31/2016</th>
<th>12/1/2015</th>
<th>3/18/2016</th>
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<tbody>
<tr>
<td>Original Policy Date</td>
<td>3/30/2005</td>
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</table>

**SUGGESTED DOCUMENTATION TO NAVIGATE PRE-AUTHORIZATION**

For instances when the indication is medically necessary, clinical evidence is required to determine medical necessity. For instances when the indication is investigational, you may submit additional information to the Prior Authorization Department. The following documentation is recommended in order to ensure that pre-authorization can be secured in a timely and efficient manner:

1. Medical chart notes – all notes from the patient chart related to the requested procedure, including patient’s current cardiac status/symptoms, cardiac factors, and indications.
2. Relevant patient information, including:
   - Patient age, height, weight, and BMI
   - Family history of heart problems (including relationship to member, age at diagnosis, type of event, etc.)
   - Medical history (e.g. diabetes, hypertension, stroke arrhythmia, etc.)
   - Cardiac risk factors
   - Previous cardiac treatments, surgeries, or interventions
   - Problems with exercise capacity
   - Ordering provider information
   - Imaging provider information
   - Imaging exam(s) being requested (body part, right, left, or bilateral)
   - Patient diagnosis (suspected or confirmed)
3. Diagnostic or imaging reports from previous tests (exercise stress test, echocardiography, stress echocardiography, MPI, coronary angiography, etc.)
4. Symptom history (onset, course, new or changing symptoms) related to all pertinent cardiac conditions, such as heart muscle/valvular disease, structural abnormality, infection, exposure to toxins/chemotherapy, etc.
5. Examination results, including evaluation of hypertension, heart failure, cardiomyopathy, abnormal rhythm, pulmonary embolus, congenital condition, etc.
6. Any other documentation that supports the need for the procedure

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The International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10) is maintained by the National Center for Health Statistics and the Centers for Medicare and Medicaid Services.

References: