

# **LCD for Computed Coronary Tomography Angiography (L30288)**

## **Contractor Information**

### **Contractor Name**

Wisconsin Physicians Service Insurance Corporation

### **Contractor Number**

00951, 00952, 00953, 00954, 05101, 05201, 05301, 05401, 05102, 05202, 05302, 05402, 52280

### **Contractor Type**

Carrier - MAC - FI

## **LCD Information**

### **LCD ID Number**

L30288

### **LCD Title**

Computed Coronary Tomography Angiography

### **Contractor's Determination Number**

RAD-034

### **AMA CPT / ADA CDT Copyright Statement**

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### **CMS National Coverage Policy**

CMS Pub 100-3 National Coverage Determination Manual, §220.1

CMS Pub 100-4 Medicare Claims Processing Manual; Ch. 13, §20

CMS Pub 100-9, Contractor Beneficiary and Provider Communication Manual; Ch. 5§20

### **Oversight Region**

Region V

### **Original Determination Effective Date**

For services performed on or after 08/16/2009

## **Original Determination Ending Date**

## **Revision Effective Date**

For services performed on or after 01/01/2010

## **Revision Ending Date**

## **Indications and Limitations of Coverage and/or Medical Necessity**

Multislice or Multidetector Computed Tomography (MDCT) with its advanced spatial and temporal resolution has opened up new possibilities in the imaging of the heart and major vessels of the chest, including the coronary arteries.

The MDCT technology requires thin (up to 1mm) slices, 0.5 to 0.75 mm reconstructions, multiple simultaneous images (e.g. 16, 32, 64 or more slices) and cardiac gating (often requiring beta blockers for ideal heart rate).

The current available body of evidence appears to demonstrate that coronary CTA (CCTA) can reliably rule out the presence of significant coronary artery disease (CAD) in patient with a low to intermediate probability of having CAD and can reliably achieve a high degree of diagnostic accuracy necessary to replace conventional angiography in selected situations

In some circumstances, CCTA may be proposed instead of, or in addition to, other noninvasive cardiac tests. This is particularly useful in the commonly encountered clinical scenario of patients having an equivocal stress myocardial perfusion test. The information from CCTA may be used to guide further diagnostic evaluation and/or appropriate therapy (e.g., revascularization versus medical management) and this may over the long term influence the morbidity from CAD.

It is expected that the levels of competence for both the technical and professional components of the procedure will be in compliance with those guidelines defined by the American College of Cardiology (ACC) American Heart Association (AHA) Clinical Competence Statement on Cardiac Imaging with Computed Tomography and Magnetic Resonance (2005) and the American College of Radiology (ACR) Clinical Statement on Noninvasive Cardiac Imaging (2005).

### **Indications**

1. Coronary CTA used as an alternative to invasive angiography, following a stress test that is equivocal or suspected to be inaccurate.

Coronary CTA might be used as a triage tool as an alternative to invasive coronary angiography in select patients who have an equivocal or suspected inaccurate stress (or stress imaging) test. The rationale is that a noninvasive coronary anatomic test (CCTA) might permit a separate method of assessing the coronary arteries which is different from a stress test and limit the number of normal invasive coronary angiograms. It could also help avoid missing serious coronary disease in those suspected of having an inaccurate stress test result.

2. Coronary CTA for suspected congenital anomalies of the coronary circulation.

Coronary CTA is used to assess patients suspected of having a congenital coronary anomaly. The cross-sectional nature of this technique allows one to definitively determine both the presence and possible future harm that could result from the anomaly. It is often used after an anomaly has been suspected following a different test such as prior invasive coronary angiogram. A coronary CTA is used to decide if surgery is indicated and for surgical planning.

### 3. Coronary CTA for evaluation of acute chest pain in the emergency department (ED).

The rationale for the application of coronary CTA in this setting is to quickly triage patients in order to rule out coronary artery disease as a possible cause of symptoms. It is hoped that the application of coronary CTA in the emergency room would limit resource use in chest pain patients who do not have coronary artery disease. It is preferable that CCTA in the ED be ordered by a cardiologist.

### 4. CTA for the assessment of coronary or pulmonary venous anatomy

This application of CTA for the coronary and pulmonary veins is primarily for pre-surgical planning. Coronary venous anatomy can be useful for the cardiologist who needs to place a pacemaker lead in the lateral coronary vein in order to resynchronize cardiac contraction in patients with heart failure. This may be helpful to guide biventricular pacemaker placement.

Pulmonary vein anatomy can vary from patient to patient. Pulmonary vein catheter ablation can isolate electrical activity from the pulmonary veins and allow for the elimination of recurrent atrial fibrillation. The presence of a pulmonary venous anatomic map may help eliminate procedural complications and allow for the successful completion of the procedure.

#### Limitations

1. The test is never covered for screening, i.e., in the absence of signs, symptoms or disease.
2. The selection of the test should be made within the context of other testing modalities such as stress myocardial perfusion images or cardiac ultrasound result so that the resulting information facilitates the management decision, not merely adds a new layer of testing.
3. The test may be denied, on post-pay review, as not medically necessary when used for cardiac evaluation of a patient where there is a pre-test knowledge of sufficiently extensive calcification of the coronary segment in question that would diminish the interpretive value.
4. Coverage of this modality for coronary artery assessment is limited to devices that process thin, high resolution slices (1 mm or less). The multidetector scanner must have at least 64 slices per rotation capability.
5. The administration of beta blockers and the monitoring of the patient during CCTA by a physician experienced in the use of cardiovascular drugs are included and are not separately payable services.
6. All studies must be ordered by a physician or a qualified non-physician practitioner similar to any other medical testing such as the stress myocardial perfusion imaging or ultrasound evaluation.
7. For contrast enhanced examinations a physician must be present for direct supervision during testing similar to the stress myocardial perfusion imaging.
8. The electron beam tomography (EBT) technology or Ultrafast CT is not covered by this LCD for coronary artery examination.
9. Atrial fibrillation by itself is not an indication; atrial fibrillation with planned ablation therapy is allowed.

#### **Coding Information**

#### **Bill Type Codes:**

**Contractors may specify Bill Types to help providers identify those Bill Types typically used to report this service. Absence of a Bill Type does not guarantee that the policy does not apply to that Bill Type. Complete absence of all Bill Types indicates that coverage is not influenced by Bill Type and the policy should be assumed to apply equally to all claims.**

|     |   |
|-----|---|
| 11x | Hospital-inpatient (including Part A)   |
| 12x | Hospital-inpatient or home health visits (Part B only)  |
| 13x | Hospital-outpatient (HHA-A also) (under OPPS 13X must be used for ASC claims submitted for OPPS payment -- eff. 7/00) |
| 14x | Non-Patient Laboratory Specimens  |
| 18x | Hospital-swing beds   |
| 21x | SNF-inpatient, Part A   |
| 22x | SNF-inpatient or home health visits (Part B only)   |
| 23x | SNF-outpatient (HHA-A also)   |
| 71x | Clinic-rural health   |
| 72x | Clinic-hospital based or independent renal dialysis facility  |
| 85x | Special facility or ASC surgery-rural primary care hospital (eff 10/94)   |

#### **Revenue Codes:**

**Contractors may specify Revenue Codes to help providers identify those Revenue Codes typically used to report this service. In most instances Revenue Codes are purely advisory; unless specified in the policy services reported under other Revenue Codes are equally subject to this coverage determination. Complete absence of all Revenue Codes indicates that coverage is not influenced by Revenue Code and the policy should be assumed to apply equally to all Revenue Codes.**

Contractors may specify Revenue Codes to help providers identify those Revenue Codes typically used to report this service. In most instances Revenue Codes are purely advisory; unless specified in the policy services reported under other Revenue Codes are equally subject to this coverage determination. Complete absence of all Revenue Codes indicates that coverage is not influenced by Revenue Code and the policy should be assumed to apply equally to all Revenue Codes.

|      |   |
|------|---|
| 035X | Computed tomographic (CT) scan-general classification |
|------|---|

#### **CPT/HCPCS Codes**

\*For dates of service January 1, 2006 through December 31, 2009, Category III CPT Codes, 0145T, 0146T, 0147T, 0148T and 0149T, were effective for CCT and CCTA services. During this timeframe the use of Category III CPT Codes was mandatory to report coronary CTA procedures. As of January 1, 2010, CPT Codes 75572, and 75574 replace all CPT codes previously used for these services.

75572

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)

75574

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)

### ICD-9 Codes that Support Medical Necessity

Note: ICD-9 codes must be coded to the highest level of specificity.

TRUNCATED DIAGNOSIS CODES ARE NOT ACCEPTABLE.

ICD-9 Codes for use with CPT Codes 75572 and 75574

|        |  |
|--------|--|
| 413.0  | ANGINA DECUBITUS   |
| 413.1  | PRINZMETAL ANGINA  |
| 413.9  | OTHER AND UNSPECIFIED ANGINA PECTORIS                        |
| 414.8  | OTHER SPECIFIED FORMS OF CHRONIC ISCHEMIC HEART DISEASE      |
| 425.4  | OTHER PRIMARY CARDIOMYOPATHIES                               |
| 427.31 | ATRIAL FIBRILLATION  |
| 427.32 | ATRIAL FLUTTER   |
| 428.0  | CONGESTIVE HEART FAILURE UNSPECIFIED                         |
| 746.85 | CORONARY ARTERY ANOMALY CONGENITAL                           |
| 747.41 | TOTAL ANOMALOUS PULMONARY VENOUS CONNECTION                  |
| 747.42 | PARTIAL ANOMALOUS PULMONARY VENOUS CONNECTION                |
| 786.05 | SHORTNESS OF BREATH  |
| 786.50 | UNSPECIFIED CHEST PAIN                                       |
| 786.51 | PRECARDIAL PAIN  |
| 786.59 | OTHER CHEST PAIN   |
| 794.30 | UNSPECIFIED ABNORMAL FUNCTION STUDY OF CARDIOVASCULAR SYSTEM |

## **Diagnoses that Support Medical Necessity**

Diagnoses listed above

## **ICD-9 Codes that DO NOT Support Medical Necessity**

ICD-9 codes not listed above

## **ICD-9 Codes that DO NOT Support Medical Necessity Asterisk Explanation**

## **Diagnoses that DO NOT Support Medical Necessity**

Any diagnosis not listed above

## **General Information**

### **Documentation Requirements**

1. Each claim must be submitted with ICD-9-CM codes that reflect the condition of the patient, and indicate the reason(s) for which the service was performed. Claims submitted without ICD-9-CM codes will be returned.
2. The documentation of the study requires a formal written report, with clear identifying demographics, the name of the interpreting provider, the reason for the tests, an interpretive report and copies of images. The computerized data with image reconstruction should also be maintained.
3. Documentation must be available to Medicare upon request.

## **Appendices**

### **Utilization Guidelines**

1. The frequency of the studies exam must be reasonable and justified by the course of the patient's illness.

### **Sources of Information and Basis for Decision**

1. American College of Cardiology Foundation (ACCF) American Heart Association (AHA) Clinical Competence Statement on Cardiac Imaging with Computed Tomography and Magnetic Resonance. Journal of the American College of Cardiology, Vol. 46, No. 2, 2005 pg 383-402.
2. American College of Radiology Clinical Statement on Noninvasive Cardiac Imaging. Radiology, 2005; 235:723-727.
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### **Advisory Committee Meeting Notes**

Wisconsin 01/16/2009  
Illinois 01/28/2009  
Michigan 01/07/2009  
Minnesota 01/22/2009  
Iowa, Kansas, Missouri, Nebraska 02/12/2009

### **Start Date of Comment Period**

02/12/2009

### **End Date of Comment Period**

03/30/2009

### **Start Date of Notice Period**

07/01/2009

### **Revision History Number**

7

### **Revision History Explanation**

01/01/2010, CPT/HCPCS 2010 coding update; Removed specific CPT code designation requirement for a specific ICD-9 code designation, effective 08/16/2009 (one).

06/19/2009 Any Carrier Advisory Committee (CAC) related information, including Start date and End Date of Comment Period, reflects the last time this LCD passed through the Comment and Notice process. AB

This LCD consolidates and replaces all previous policies and publications on this subject by the carrier and fiscal intermediary predecessors of Wisconsin Physicians Service. This coverage determination also applies within states outside the primary geographic jurisdiction that have nominated Wisconsin Physicians Service to process their claims.

\* - An asterisk indicates a revision to that section of the policy.

See companion document titled Billing and Coding Guidelines for RAD-034, Computed Coronary Tomography Angiography

This policy does not reflect the sole opinion of the contractor or contractor medical director. Although the final decision rests with the contractor, this policy was developed in cooperation with the Carrier Advisory Committee, which includes representatives from relative specialties.

05/26/2009 Deleted duplicate DL 30288

05/21/2009 posted as draft

11/15/2009 - CPT/HCPCS code 0145T was deleted from group 1

11/15/2009 - CPT/HCPCS code 0146T was deleted from group 1

11/15/2009 - CPT/HCPCS code 0147T was deleted from group 1

11/15/2009 - CPT/HCPCS code 0148T was deleted from group 1

11/15/2009 - CPT/HCPCS code 0149T was deleted from group 1

### **Reason for Change**

### **Last Reviewed On Date**

12/03/2009

### **Related Documents**

This LCD has no Related Documents.

### **LCD Attachments**

[Coding and Billing Guidelines 01/01/2010 \(PDF - 39,954 bytes\)](#)

### **All Versions**

Updated on 12/31/2009 with effective dates 01/01/2010 - N/A

Updated on 07/16/2009 with effective dates 08/16/2009 - N/A