New Century Health

Cardio Policy:

Coronary and/or Cardiac Computed Tomographic Angiography

POLICY NUMBER UM CARDIO_1115	**SUBJECT** Coronary and/or Cardiac Computed Tomographic Angiography	**DEPT/PROGRAM** UM Dept	**PAGE 1 OF 4**
DATES COMMITTEE REVIEWED 07/22/11, 12/12/12, 12/17/13, 02/19/15, 08/12/15, 11/28/16, 12/21/16, 10/31/17, 02/13/19, 02/21/19, 05/08/19, 12/11/19, 07/08/20, 01/13/21, 05/12/21, 08/11/21, 09/14/22	**APPROVAL DATE** September 14, 2022	**EFFECTIVE DATE** September 30, 2022	**COMMITTEE APPROVAL DATES** 07/22/11, 12/12/12, 12/17/13, 02/19/15, 08/12/15, 11/28/16, 12/21/16, 10/31/17, 02/13/19, 02/21/19, 05/08/19, 12/11/19, 07/08/20, 01/13/21, 05/12/21, 08/11/21, 09/14/22
PRIMARY BUSINESS OWNER: UM		**COMMITTEE/BOARD APPROVAL** Utilization Management Committee	
URAC STANDARDS HUM v8: UM 1-2; UM 2-1	**NCQA STANDARDS** UM 2	**ADDITIONAL AREAS OF IMPACT**	
CMS REQUIREMENTS	**STATE/FEDERAL REQUIREMENTS**	**APPLICABLE LINES OF BUSINESS** Commercial, Exchange, Medicaid	

I. PURPOSE

Indications for determining medical necessity for Coronary and/or Cardiac Computed Tomographic Angiography (CCTA).

II. DEFINITIONS

A coronary computerized tomography angiogram (CCTA) is an imaging test for coronary heart disease. Unlike a traditional coronary angiogram, CT angiograms do not use catheters threaded to the arteries of the heart.

Instead, a CT angiogram relies on computerized tomographic x-ray to produce images of the heart and heart vessels after injection of contrast material through a peripheral vein.

An appropriate diagnostic or therapeutic procedure is one in which the expected clinical benefit exceeds the risks or negative consequences of the procedure by a sufficiently wide margin such that the procedure is generally considered acceptable or reasonable care. The ultimate objective of AUC is to improve patient care and health outcomes in a cost–effective manner but is not intended to ignore ambiguity and nuance intrinsic to clinical decision making.

Appropriate Care - Median Score 7-9

May be Appropriate Care - Median Score 4-6

Rarely Appropriate Care - Median Score 1-3

Intermediate pre-test probability of CAD risk will correlate with a 10-year absolute Coronary Heart Disease risk between 10% and 90%.

III. POLICY

Indications for approving a request for medical necessity are:

A. CCTA is being performed to avoid performing cardiac catheterization in patients with chest pain syndrome with intermediate pre- test probability of CAD, uninterpretable ECG and are not able to exercise with no prior CCTA done within the last 12 months. **(AUC Score 8)**[1,2,3,5,7]

B. Symptomatic patient with or without prior CABG, with new onset or persistent angina on exertion or at rest, interfering in performing daily activities, despite being on guideline directed medical therapy, and with an equivocal stress test results with no prior CCTA done within the last 12 months. **(AUC Score 8)**[1,2,3,5,7]

C. Chest pain of uncertain etiology, when non-invasive tests are negative, but symptoms are severe, and management requires that significant coronary artery disease be excluded. **(AUC Score 8)**[1,2,3,5]

D. Pulmonary vein mapping prior to Atrial Fibrillation Ablation or prior to placement of biventricular device with no prior CCTA done within the last 12 months. **(AUC Score 8)**[1,2,3,5]

E. Congenital heart disease -Initial or follow up assessment of complex congenital heart disease including anomalies of coronary circulation, great vessels, and cardiac chambers and valves with no prior CCTA done within the last 12 months and other forms of imaging within the last 12 months are non-diagnostic or equivocal. **(AUC Score 7)**[1,2,3,5]

F. Evaluation of cardiac mass, pericardial disease, with technically limited images from prior imaging studies other than Cardiac Computed Tomographic Angiography with no prior CCTA done within the last 12 months. **(AUC Score 7)**[1,2,3,4]

G. Evaluation of suspected aortic dissection or thoracic aortic aneurysm and suspected pulmonary embolism. **(AUC Score 8)**[1,2,3,5,7]

H. Evaluation of ventricular morphology and systolic function in heart failure patients when prior non-invasive images have been inadequate with no prior CCTA done within the last 12 months. **(AUC Score 7)**[1,2,3,5,7]

I. Evaluation of right ventricular morphology and systolic function in suspected Arrhythmogenic right ventricular dysplasia with no prior CCTA done within the last 12 months. **(AUC Score 7)**[1,2,3,5,7]

J. Detecting CAD in asymptomatic patients with prior calcium score 100-400 with contrast coronary CT with no prior CCTA done within the last 12 months. **(AUC Score 8)**[1,2,3,5,7]

K. CCTA may be performed in patients who cannot tolerate moderate sedation that is required during TEE, for pre procedural evaluation for Left Atrial Appendage Occlusion to look for LA/LAA thrombus, spontaneous contrast, LAA morphology and dimensions. **(AUC Score 7)**[2]. TEE however remains the preferred choice of modality for this procedure.

L. Evaluation of the aortic root and aortic valve calcium burden in patients being evaluated for TAVR. **(AUC Score 8)[6]**

M. Screening for atherosclerotic coronary artery disease using coronary artery CT calcium scoring may be performed in adult patients and all diabetic patients age ≥ 40 years old who are asymptomatic for ASCAD who are considered at intermediate Framingham risk OR are at low Framingham risk but have a strong family history of premature ASCAD, for whom the addition of statins and other forms of primary prevention may be of benefit **(AUC Score 6)[3,4]**

The following is a list of exclusion criteria for CCTA:

A. Atrial fibrillation (unless the CCTA is being used for pulmonary vein mapping prior to an atrial fibrillation ablation).

B. Multifocal Atrial Tachycardia (MAT)

C. Frequent Atrial Premature Contractions

D. More than 50 premature ventricular contractions per hour

E. Inability to lie flat

F. Body mass index >40

G. Inability to obtain a heart rate less than 65 beats per minute after beta blockers

H. Calcium (Agatston) score of 1000 or more

I. Normal coronary angiogram less than one year ago

J. Inability to hold breath for >8 seconds

Limitations

A. Requests for services that are part of a surveillance protocol for patients who are involved in a clinical trial are considered out of scope (OOS) for New Century Health and cannot be reviewed.

IV. PROCEDURE

A. In order to review a request for medical necessity, the following items must be submitted for review
   1. Progress note that prompted request
   2. Recent EKG (within 10 days)
   3. Stress test and/or prior cardiac catheterization report (if applicable)
   4. Most recent Echocardiogram

B. Primary codes appropriate for this service: 75571 (Calcium scoring only); 75574, 75573, 75572

V. APPROVAL AUTHORITY

A. Review – Utilization Management Department

B. Final Approval – Utilization Management Committee

VI. ATTACHMENTS

A. None

VII. REFERENCES

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5. Taylor AJ, et al. ACCF/SCCT/ACR/AHA/ASE/ASNC/NASCI/SCAI/SCMR 2010 appropriate use criteria for cardiac computed tomography. A report of the American College of Cardiology Foundation Appropriate Use Criteria Task Force, the Society of Cardiovascular Computed Tomography, the American College of Radiology, the American Heart Association, the American Society of Echocardiography, the American Society of Nuclear Cardiology, the North American Society for Cardiovascular Imaging, the Society for Cardiovascular Angiography and Interventions, and the Society for Cardiovascular Magnetic Resonance. Journal of the American College of Cardiology. Nov 2010. Volume 56, Issue 22, Page 1864-94.
6. Achenbach S, Delgado V, Hausleiter J, Schoenhagen P, Min JK, Leipsic JA. SCCT expert consensus document on computed tomography imaging before transcatheter aortic valve implantation (TAVI)/transcatheter aortic valve replacement (TAVR). *J Cardiovasc Comput Tomogr* 2012; 6: 366–80.
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