

# Medicare Advantage Medical Policy



## Computed Tomography to Detect Coronary Artery Calcification – Medicare Advantage

### Medicare Advantage Plan

☒ Medicare Plus Blue<sup>SM</sup>

☒ BCN Advantage<sup>SM</sup>

UM Committee Approval Date: 9/17/2025

Effective Date: 10/17/2025

### Description

Computed Tomography (CT) for Coronary Artery Calcification (CAC), also known as a coronary calcium scan, is a non-invasive, non-contrast imaging study used to detect and quantify calcified plaque in the coronary arteries. The presence and extent of calcification serve as a direct marker of the total atherosclerotic plaque burden.

This scan is primarily indicated for screening and cardiovascular risk stratification in asymptomatic individuals, helping to identify subclinical coronary artery disease before symptoms manifest. The resulting quantitative measurement, known as the Agatston score, helps clinicians refine risk assessment and guide preventative strategies, such as lifestyle modifications and pharmacotherapy. A higher score signifies a greater plaque burden and a correspondingly increased risk for future cardiovascular events. It is important to note that a CAC scan does not assess for luminal stenosis and is not a substitute for diagnostic procedures like stress testing or coronary CT angiography (CCTA) in symptomatic patients.

### Related Medical Coverage Policies

- Contrast-Enhanced Computed Tomography Angiography (CTA, CCTA, MDCT, MSCT) of the Heart and/or Coronary Arteries – Medicare Advantage

### Policy Guidelines

Blue Cross Blue Shield of Michigan (BCBSM) and Blue Care Network of Michigan (BCN) adhere to guidance from the Centers for Medicare and Medicaid Services (CMS), including when performing organization determinations for Medicare Advantage plan members. CMS Medicare statutes, regulations, manuals, National Coverage Determinations (NCDs), Local Coverage Determinations (LCDs), Local Coverage Articles (LCAs) and other sub-regulatory guidance provide the clinical guidelines for coverage determinations, payment integrity functions, and all other uses by CMS regulations. When CMS Medicare guidance is silent, incomplete, or insufficient, CMS permits BCBSM/BCN to utilize “internal coverage criteria”, such as independent criteria, health plan policy research, LCD/LCAs outside the services area or research from independent medical research repositories (i.e., Hayes) for coverage policies

42 CFR § 422.101. BCBSM/BCN internal medical coverage policies are developed and based on current evidence in widely accepted treatment guidelines or clinical literature; in addition, they address how clinical benefits may or may not outweigh member harm.

Clinical review follows guidance provided in the BCBSM Medicare Advantage Coverage Determination Hierarchy policy, which may be found at <https://www.bcbsm.com/providers/mpradmin/> by entering the policy name.

## Coverage Guidance

To ensure consistency with coverage guidance, the Medicare statutes, regulations, coverage manuals, NCD, LCD, and LCA should be reviewed and applied first. BCBSM/BCN internal coverage criteria should only be applied when CMS guidance is silent, incomplete, or insufficient for a code

Apart from durable medical equipment (DME), Medicare Administrative Contractor (MAC) jurisdiction for the purpose of clinical determination is based upon place of service. The place of service for laboratory testing is defined as the geographic location of the reference laboratory. Non-jurisdictional LCD/LCAs may not be utilized for a determination unless they have been specifically identified as internal coverage criteria by the policy. Alternatively, jurisdiction for DME MAC is determined by the member place of residence. Please see CMS Medicare Administrative Contractors (MAC) table for state MAC assignments below

| Code   | Description                                                                                             | CMS Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Additional Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 75571  | Computed tomography, heart, without contrast material, with quantitative evaluation of coronary calcium | <b>National Coverage Determinations</b><br>None<br><br><b>Local Coverage Determinations and Articles</b><br><b>WPS</b><br>L35121/ A57552 - Coronary Computed Tomography Angiography (CCTA)<br>L39913/ A59813 – Artificial Intelligence Enabled CT Based Quantitative Coronary Topography (AI-QCT)/ Coronary Plaque Analysis (AI-CPA)<br><br><b>CGS</b><br>L33947/ A56451 - Cardiac Computed Tomography (CCT) and Coronary Computed Tomography Angiography (CCTA)<br>L39840/ A59716 – Artificial Intelligence Enabled CT Based Quantitative Coronary Topography (AI-QCT)/ Coronary Plaque Analysis (AI-CPA)<br><br><b>First Coast</b><br>None<br><br><b>NGS</b><br>L33559/ A56737 - Cardiac Computed Tomography (CCT) and | BCBSM/BCN will follow CMS guidance as the primary source for coverage determinations. However, in instances where CMS guidance is silent, incomplete, or insufficient for a particular code, BCBSM/BCN internal coverage criteria will be applied to ensure consistent and informed decision-making.<br><br>In such cases, please refer to the relevant BCBSM/BCN policy for guidance:<br><i>Computed Tomography to Detect Coronary Artery Calcification</i><br>Policy attached below |
| S8092* | Electron beam computed tomography (also known as ultrafast CT, cine CT)                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  | <p>Coronary Computed Tomography Angiography (CCTA)<br/>L39863/ A59733 - Artificial Intelligence Enabled CT Based Quantitative Coronary Topography (AI-QCT)/ Coronary Plaque Analysis (AI-CPA)</p> <p><b>Noridian JE</b><br/>L39881/ A59769 - Artificial Intelligence Enabled CT Based Quantitative Coronary Topography (AI-QCT)/ Coronary Plaque Analysis (AI-CPA)</p> <p><b>Noridian JF</b><br/>L39883/ A59771 - Artificial Intelligence Enabled CT Based Quantitative Coronary Topography (AI-QCT)/ Coronary Plaque Analysis (AI-CPA)</p> <p><b>Novitas</b><br/>None</p> <p><b>Palmetto</b><br/>L33423/ A56691 Cardiac Computed Tomography &amp; Angiography (CCTA)<br/>L39851/ A59721 - Artificial Intelligence Enabled CT Based Quantitative Coronary Topography (AI-QCT)/ Coronary Plaque Analysis (AI-CPA)</p> |  |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

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HCPCS® codes, descriptions and materials are copyrighted by Centers for Medicare and Medicaid Services (CMS).

\* Status Indicator Code: The National Physician Fee Schedule Relative Value File (NPFSSRVF), which is published by Medicare, indicates HCPCS codes starting with “S” have been assigned a Status Indicator code of “I” - Not valid for Medicare purposes

The above information is current as of the review date for this policy. However, the coverage issues and policies maintained by CMS are updated and/or revised periodically. Therefore, the most current CMS information may not be contained in this document.

Please refer to the Medicare Coverage Database website at <https://www.cms.gov/medicare-coverage-database/search.aspx> for the most current applicable NCD, LCD, LCA, and CMS Online Manual System Transmittals.

### CMS Medicare Administrative Contractors (MAC) Jurisdictions

| Part A and Part B Medicare Administrative Contractor (MAC) Jurisdiction |                                                            |
|-------------------------------------------------------------------------|------------------------------------------------------------|
| <b>Wisconsin Physicians Service Insurance Corporation (WPS)</b>         | IA, IN, KS, MI, MO, NE                                     |
| <b>CGS Administrators, LLC</b>                                          | KY, OH                                                     |
| <b>First Coast Service Options, Inc</b>                                 | FL, PR, US VI                                              |
| <b>National Government Services, Inc (NGS)</b>                          | CT, IL, MA, ME, MN, NH, NY, RI, VT, WI,                    |
| <b>Noridian Healthcare Solutions, LLC, Jurisdiction JE</b>              | CA, HI, NV, American Samoa, Guam, Northern Mariana Islands |
| <b>Noridian Healthcare Solutions, LLC, Jurisdiction JF</b>              | AK, AZ, ID, MT, ND, OR, SD, UT, WA, WY                     |

|                                                                       |                                                                                                                                                                     |
|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Novitas Solutions, Inc</b>                                         | AR, CO, DC, DE, LA, MD, MS, NJ, NM, OK, PA, TX,                                                                                                                     |
| <b>Palmetto GBA</b>                                                   | AL, GA, TN NC, SC, VA, WV                                                                                                                                           |
| <b>DME MAC Jurisdictions</b>                                          |                                                                                                                                                                     |
| <b>CGS Administrators, LLC,</b><br>Jurisdictions JB and JC            | AL, AR, CO, FL, GA, IL, IN, KY, LA, MI, MN, MS, NM, NC, OH, OK, Puerto Rico, SC, TN, TX, VA, Virgin Island, WI, WV                                                  |
| <b>Noridian Healthcare Solutions, LLC,</b><br>Jurisdictions JA and JD | AK, American Soamoa, AZ, CA, CT, DE, DC, Guam, HI, ID, IA, KS, MA, MD, ME, MO, MT, ND, NE, NH, NJ, NV, NY, Northern Mariana Islands, OR, PA, RI, SD, UT, VT, WA, WY |

## Important Reminder

BCBSM and BCN follow CMS Medicare coverage guidance to limit coverage to items and services that are reasonable and necessary for the diagnosis or treatment of an illness or injury or to improve the functioning of a malformed body member. Medicare Advantage Medical Policies list the criteria BCBSM and BCN use to decide which medical services are considered “reasonable and necessary” when Medicare coverage rules are not fully developed, or as otherwise may permitted by CMS Medicare regulations. Individual member benefit plan documents, such as the Evidence of Coverage and Annual Notice of Change, as well as applicable laws govern benefit coverage, including any inclusion, exclusion, and/or other restrictions.

Medicare Advantage Medical policies are created when permitted by CMS Medicare regulations, reviewed regularly, and may be revised periodically. BCBSM/BCN Medical Policies are proprietary and should not be copied or disseminated without the express, prior written approval of BCBSM. All providers are required to review applicable BCBSM reimbursement policies prior to claim submission and bill for covered services in accordance with those policies. Additionally, providers contracted with BCBSM or BCN's Medicare Advantage network(s) should review the provider manual for any additional claim submission requirements. Providers not contracted with BCBSM or BCN's Medicare Advantage network may be required to submit documentation to BCBSM, BCN, or its delegated entity supporting billed claims, including but not limited to applicable medical records.

**Note:** U.S. Food and Drug Administration (FDA) approval for a specific indication or the issuance of a CPT code is not sufficient for a procedure to be considered medically reasonable and necessary. Similarly, the presence of a procedure/device code or payment amount for the service in the Medicare fee schedule does not necessarily indicate coverage. If a service is deemed not reasonable and necessary, to treat illness or injury for any reason (including lack of safety and efficacy because it is an experimental procedure, etc.), the procedure is considered not covered.

**Disclaimer:** This medical policy is not an authorization, certification, explanation of benefits, or a contract for the services, devices, or drugs that is referenced in the medical policy. Medical policies do not constitute medical advice and do not guarantee any results or outcomes or guarantee payment. The medical policy is not intended to replace independent medical judgment for the treatment of individuals. Treating physicians and health care providers are solely responsible for determining what care to provide to their patients. Identification of selected brand names of devices, tests and procedures in a medical coverage policy is for reference only and is not an endorsement of any one device, test, or procedure over another.

Pursuant to Section 1557 and Section 504, Blue Cross does not discriminate on the basis of race, color, national origin, age, disability, or sex (including sex characteristics, intersex traits; pregnancy or related conditions; sexual orientation; gender identity, and sex stereotypes). This includes our rules, benefit designs and medical policies.

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### BCBSM/BCN Medicare Advantage Policy History

| <b>Policy Effective Date</b> | <b>UM Committee Approval Date</b> | <b>Comments</b>                                                           |
|------------------------------|-----------------------------------|---------------------------------------------------------------------------|
| 07/17/2024                   | 07/17/2024                        | Medicare Advantage policy established                                     |
| 09/17/2025                   | 10/17/2025                        | MA policy foundational language updated. Adoption of JUMP policy updates. |

# Medical Policy



Nonprofit corporations and independent licensees  
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**Joint Medical Policies are a source for BCBSM and BCN medical policy information only. These documents are not to be used to determine benefits or reimbursement. When Centers for Medicare and Medicaid (CMS) coverage rules are not fully developed, this medical policy may be used by BCBSM or BCN Medicare Advantage plans 42 CFR § 422.101 (b)(6). Please reference the appropriate certificate or contract for benefit information. This policy may be updated and is therefore subject to change.**

**\*Current Policy Effective Date: 9/1/25**  
(See policy history boxes for previous effective dates)

## **Title: Computed Tomography to Detect Coronary Artery Calcification**

### **Description**

Several types of fast computed tomography (CT) imaging, including electron-beam CT and spiral CT, allow the quantification of calcium in coronary arteries. Coronary artery calcium (CAC) is associated with coronary artery disease (CAD). The use of CAC scores has been studied in the prediction of future risk of CAD and in the diagnosis of CAD in symptomatic individuals

### **Background**

#### **CORONARY ARTERY CALCIUM**

Coronary artery calcium (CAC) is associated with coronary artery disease (CAD). The development of fast computed tomography (CT) scanners has allowed the measurement of CAC in clinical practice. Coronary artery calcium has been evaluated in several clinical settings. The most widely studied indication is for the use of CAC in the prediction of future risk of CAD in individuals with subclinical disease, with the goal of instituting appropriate risk-reducing therapy (e.g., statin treatment, lifestyle modifications) to improve outcomes. Also, CAC has been evaluated in individuals with symptoms potentially consistent with CAD, but in whom a diagnosis is unclear.

#### **Detection**

Electron-beam computed tomography (EBCT; also known as ultrafast CT) and spiral CT (or helical CT) may be used as an alternative to conventional CT scanning due to faster throughput. In both methods, the speed of image acquisition gives them unique value for imaging a moving heart. The rapid image acquisition time virtually eliminates motion artifact related to cardiac contraction, permitting visualization of the calcium in the epicardial coronary arteries. Electron-beam computed tomography software permits quantification of calcium area and density, which are translated into calcium scores. Calcium scores have been investigated

as a technique for detecting CAC, both as a diagnostic technique in symptomatic individuals to rule out an atherosclerotic etiology of symptoms or, in asymptomatic individuals, as an adjunctive method for risk stratification for CAD.

Electron-beam computed tomography and multidetector CT were initially the primary fast CT methods for measurement of CAC. A fast CT study for CAC measurement takes 10 to 15 minutes and requires only a few seconds of scanning time. More recently, computed tomography angiography has been used to assess coronary calcium. Because of the basic similarity between EBCT and computed tomography angiography in measuring coronary calcium, it is expected that computed tomography angiography provides information on coronary calcium that is similar to EBCT.

Computed tomography scan-derived coronary calcium measures have been used to evaluate coronary atherosclerosis. Coronary calcium is present in coronary atherosclerosis, but atherosclerosis detected may or may not be causing ischemia or symptoms. Coronary calcium measures may be correlated with the presence of critical coronary stenoses or serve as a measure of the patient's proclivity toward atherosclerosis and future coronary disease. Thus, coronary calcium could serve as a variable to be used in a risk assessment calculation to determine appropriate preventive treatment in asymptomatic individuals. Alternatively, in other clinical scenarios, coronary calcium scores might help determine whether there is an atherosclerotic etiology or component to the presenting clinical problem in symptomatic individuals, thus helping to direct further workup for the clinical problem. In this second scenario, a calcium score of 0 usually indicates that the patient's clinical problem is unlikely to be due to atherosclerosis and that other etiologies should be more strongly considered. In neither case does the test determine a specific diagnosis. Most clinical studies have examined coronary calcium for its potential use in estimating the risk of future coronary heart disease events.

### **Risk Assessment Tool**

The ASCVD (atherosclerotic cardiovascular disease) pooled cohort risk score is based on national guidelines developed by the American College of Cardiology. It is a calculation of an individual's 10-year risk of having a cardiovascular problem, such as a heart attack or stroke. This risk estimate considers age, sex, race, cholesterol levels, blood pressure, medication use, diabetes status, and smoking status. Risk assessment is a critical step in the current approach to primary prevention of atherosclerotic cardiovascular disease (myocardial infarction, heart failure, atherosclerosis and stroke). The pooled cohort equation has been widely validated and is broadly useful for the general US clinical population. But the risk assessment tool may systematically underestimate risk in certain patient groups, and overestimate risk in others. Therefore when uncertainty remains, as for individuals at borderline (ASCVD risk score of 5 to 7.5) or intermediate risk (ASCVD risk score of 7.6 to 19.9), or if the patient is undecided after a patient–clinician discussion with consideration of risk enhancing factors (eg, family history), additional testing with measurement of coronary artery calcium can be useful to reclassify risk estimates and improve selection of individuals for use or avoidance of statin therapy.<sup>6</sup>

### **Nomenclature**

Coronary calcium levels can be expressed in many ways. The most common method is the Agatston score, which is a weighted summed total of calcified coronary artery area observed on CT. This value can be expressed as an absolute number, commonly ranging from 0 (low risk) to 400 (high risk). These values can be translated into age- and sex-specific percentile

values. Different imaging methods and protocols will produce different values based on the specific algorithm used to create the score, but the correlation between any 2 methods appears to be high, and scores from 1 method can be translated into scores from a different method.

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## Regulatory Status:

Many models of CT devices, including EBCT and other ultrafast CT devices, have been cleared for marketing by the U.S. Food and Drug Administration through the 510(k) process. U.S. FDA product code: JAK.

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## Medical Policy Statement

Computed tomography for the detection of coronary artery calcification is considered **established** when criteria are met.

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## Inclusionary and Exclusionary Guidelines

Benefits must be verified. Employer groups may decline coverage of this test.

### Inclusions:

Coronary artery calcium (CAC) testing is considered established to assist with decisions regarding management of hypercholesterolemia when ALL of the following apply:

- No known atheromatous vascular disease
- Not diabetic
- Age  $\geq 40$  years and  $\leq 75$  years
- Low-density lipoprotein (LDL) cholesterol  $\geq 70$  mg/dL and  $\leq 190$  mg/dL
- 10-year risk (using atherosclerotic cardiovascular disease [ASCVD] Pooled Cohort Equations)  $\geq 5\%$  and  $\leq 20\%$

### Exclusions:

ANY of the following:

- Family history of premature atherosclerotic cardiovascular disease
- Persistently elevated low-density lipoprotein ( $\geq 160$  mg/dL)
- Persistently elevated triglyceride ( $> 175$ mg/dL)
- Metabolic syndrome
- Chronic kidney disease (eGFR 15-59 mL/min/1.73 m<sup>2</sup>)
- Chronic inflammatory condition
- History of menopause before age 40 years
- History of preeclampsia
- High risk race/ethnicity (eg, South Asian ancestry)
- Markers associated with increased risk of atherosclerotic cardiovascular disease (if measured):
  - Elevated high-sensitivity C-reactive protein ( $\geq 2.0$  mg/L)
  - Elevated lipoprotein(a) ( $> 50$ mg/dL)

- Apolipoprotein B > 130mg/dL
- Ankle-brachial index less than 0.9

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**CPT/HCPCS Level II Codes** *(Note: The inclusion of a code in this list is not a guarantee of coverage. Please refer to the medical policy statement to determine the status of a given procedure.)*

**Established codes:**

75571                      S8092

**Other codes (investigational, not medically necessary, etc.):**

NA

***Note: Individual policy criteria determine the coverage status of the CPT/HCPCS code(s) on this policy. Codes listed in this policy may have different coverage positions (such as established or experimental/investigational) in other medical policies.***

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**Rationale**

McClelland et al (2015) sought to derive and validate a novel risk score to estimate 10-year coronary heart disease risk using coronary artery calcium and traditional risk factors.<sup>1</sup> Algorithm development was conducted in the MESA (Multi-Ethnic Study of Atherosclerosis), a prospective community-based cohort study of 6,814 participants age 45 years to 84 years, who were free of clinical heart disease at baseline and were followed for 10 years. The MESA study is sex balanced and included 39% non-Hispanic whites, 12% Chinese Americans, 28% African Americans, and 22% Hispanic Americans. External validation was conducted in the Heinz Nixdorf Recall Study (HNR) and the Dallas Heart Study (DHS). The authors found that inclusion of coronary artery calcium, in the MESA risk score offered significant improvements in risk prediction (C-statistic 0.80 vs. 0.75; p<0.0001). External validation in both the HNR and DHS studies provided evidence of very good discrimination and calibration. The difference in estimated 10-year risk between events and nonevents was approximately 8% to 9%, indicating excellent discrimination. Mean calibration, or calibration-in-the-large, was excellent for both studies, with average predicted 10-year risk within one-half of a percent of the observed event rate. The authors concluded that an accurate estimate of 10-year coronary heart disease risk can be obtained using traditional risk factors and coronary artery calcium.

**Supplemental Information**

**ACCF/SCCT/ACR/AHA/ASE/ASNC/NASCI/SCAI/SCMR 2010<sup>2</sup>  
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 Noncontrast CT calcium scoring was judged as appropriate for intermediate CHD risk patients, and for the specific subset of low-risk patients in whom a family history of premature CHD was present. Intermediate risk was defined as a 10-year risk of between 10% and 20%, although individual patient exceptions to a broadened intermediate risk range of 6% to 20% were recognized for certain patient subsets with generally low absolute risk but high relative risk (younger men and women).

**ACCF/AHA guideline for assessment of cardiovascular risk in asymptomatic adults: executive summary 2010<sup>3</sup>**

**A Report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines**

Recommendations for Calcium Scoring Methods

Class IIa

1. Measurement of CAC is reasonable for cardiovascular risk assessment in asymptomatic adults at intermediate risk (10% to 20% 10-year risk). (Level of Evidence: B)

Class IIb

1. Measurement of CAC may be reasonable for cardiovascular risk assessment in persons at low to intermediate risk (6% to 10% 10-year risk). (Level of Evidence: B)

Class III: No Benefit

1. Persons at low risk (<6% 10-year risk) should not undergo CAC measurement for cardiovascular risk assessment. (Level of Evidence: B)

Key: Class I: Procedure/treatment SHOULD be performed/administered  
Class IIa: IT IS REASONABLE to perform procedure/administer treatment  
Class IIb: Procedure/treatment MAY BE CONSIDERED  
Class III: No benefit

**AHA/ACC/AACVPR/AAPA/ABC/ACPM/ADA/AGS/APhA/ASPC/NLA/PCNA 2018<sup>4</sup>**

**Guideline on the Management of Blood Cholesterol: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines**

**"Top 10 Take-Home Messages to Reduce Risk of Atherosclerotic Cardiovascular Disease Through Cholesterol Management"**

In discussion of the scope of the guideline:

"...when risk status is uncertain, a coronary artery calcium (CAC) score is an option to facilitate decision-making in adults  $\geq 40$  years of age".

Guideline 9:

In adults 40 to 75 years of age without diabetes mellitus and with LDL-C levels  $\geq 70$  mg/dL to 189 mg/dL ( $\geq 1.8$ –4.9 mmol/L), at a 10-year ASCVD risk of  $\geq 7.5\%$  to 19.9%, if a decision about statin therapy is uncertain, consider measuring coronary artery calcium (CAC). If CAC is zero, treatment with statin therapy may be withheld or delayed, except in cigarette smokers, those with diabetes mellitus, and those with a strong family history of premature ASCVD. A CAC score of 1 to 99 favors statin therapy, especially in those  $\geq 55$  years of age. For any patient, if the CAC score is  $\geq 100$  Agatston units or  $\geq 75$ th percentile, statin therapy is indicated unless otherwise deferred by the outcome of clinician–patient risk discussion.

**ACC/AHA Guideline on the Primary Prevention of Cardiovascular Disease: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines 2019<sup>5</sup>**

The guideline states:

For individuals with intermediate predicted risk ( $\geq 7.5\%$  to  $< 20\%$ ) by the PCE or for select adults with borderline ( $5\%$  to  $< 7.5\%$ ) predicted risk, coronary artery calcium measurement can be a useful tool in refining risk assessment for preventive interventions (eg, statin therapy). In these groups, coronary artery calcium measurement can reclassify risk upward (particularly if coronary artery calcium score is  $\geq 100$  Agatston units (AU) or  $\geq 75$ th age/sex/race percentile) or downward (if coronary artery calcium is zero) in a significant proportion of individuals. The extent of reclassification is sufficient to provide confidence that borderline- or intermediate-risk patients with elevated coronary artery calcium will have event rates that clearly exceed benefit thresholds (ie,  $\geq 7.5\%$  in 10 years) and those with coronary artery calcium scores of zero will have event rates  $< 7.5\%$ , which can help guide shared decision-making about statins or potentially even aspirin. In observational data, the presence and severity of coronary artery calcium have been shown to be associated with the likelihood of benefit from statin therapy for ASCVD risk reduction. Coronary artery calcium scoring has superior discrimination and risk reclassification as compared with other subclinical imaging markers or biomarkers.

**American Heart Association and American College of Cardiology Special Report 2019<sup>6</sup>**  
Use of Risk Assessment Tools to Guide Decision-Making in the Primary Prevention of Atherosclerotic Cardiovascular Disease

The report states:

“In patients 40 to 75 years of age and at intermediate risk, substantial data indicate that use of coronary artery calcium (CAC) measurement can be effective in reclassifying risk meaningfully in a large proportion of individuals. In this intermediate-risk range, those who also have CAC measurement of  $\geq 100$  AU (or 75th percentile for age/sex/race/ethnicity) have event rates in the range where the benefit of statin therapy would clearly exceed any potential for harms. Additionally, such data can inform a patient and clinician regarding higher likelihood of benefit from drug therapy. Conversely, those with intermediate predicted risk and CAC score of 0 AU appear to have lower 10-year event rates ( $< 7.5\%$ ), suggesting that drug therapy could be of limited value.

The American Heart Association, American College of Cardiology (2021) Guideline on Evaluation and Diagnosis of Chest Pain includes a recommendation for CAC as first-line testing in patients with stable chest pain with no known coronary artery disease and low likelihood of obstruction.<sup>7</sup> The guidelines recommend the addition of CAC may also be useful for intermediate-high risk patients with stable chest pain and no known coronary artery disease undergoing stress testing.

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## **Government Regulations**

### **National:**

There is no national coverage determination addressing this procedure.

### **Local:**

#### **Palmetto GBA**

**Artificial Intelligence Enabled CT Based Quantitative Coronary Topography (AI-QCT)/Coronary Plaque Analysis (AI-CPA) (L39851)**

**Original Effective Date: 11/24/2024 Revision Effective Date: 11/24/2024**

## Coverage Guidance

### Coverage Indications, Limitations, and/or Medical Necessity

Artificial Intelligence Enabled CT Based Quantitative Coronary Topography/Coronary Plaque Analysis (AI-QCT/AI-CPA) using coronary computed tomography angiography (CCTA)\* is considered reasonable and medically necessary as a diagnostic study when:

1. The patient has acute or stable chest pain with no known coronary artery disease (CAD)<sup>1</sup> and is eligible for CCTA\*, AND
2. CCTA classifies patient as:
  - Intermediate risk\*\* OR
  - CAD-RADS 1, CAD-RADS 2 or CAD-RADS 3 category\*\*\* on CCTA<sup>1,2</sup>, AND
3. Cardiac evaluation is negative or inconclusive for acute coronary syndrome (ACS)<sup>1</sup>.

\*See Local Coverage Determination (LCD), Cardiac Computed Tomography & Angiography (CCTA) L33423 for criteria for CCTA.

AI-QCT/AI-CPA should not be performed until after the base study (CCTA) has been completed and interpreted. Software to perform AI-QCT/AI-CPA must be FDA cleared or approved.

\*\*Intermediate and high-risk as defined in the 2021

AHA/ACC/ASE/CHEST/SAEM/SCCT/SCMR Guideline for the Evaluation and Diagnosis of Chest Pain<sup>1</sup>

\*\*\* CAD-RADS 1- CAD-RADS 3 category as defined by CAD-RADS™ 2.0–2022 Coronary Artery Disease Reporting and Data System (CAD-RADS): an Expert Consensus document of the Society of Cardiovascular Computed Tomography (SCCT), the American College of Cardiology (ACC), the American College of Radiology (ACR), and the North America Society of Cardiovascular Imaging (NASCI).<sup>2,3</sup>

#### Limitations

AI-QCT/AI-CPA is NOT considered reasonable or necessary in the following clinical circumstance(s) (non-covered):

1. Screening (i.e., in the absence of signs, symptoms, or disease);
2. When there are contraindications to CCTA\*;
3. In conjunction with invasive coronary catheterization;
4. In the presence of normal CCTA results (CAD RADS=0 or no plaque disease);
5. In the presence of high-grade stenosis (>70%) or CAD-RADS 4 and CAD-RADS 5;
6. Within 30 days of a myocardial infarction (MI);
7. In the presence of unstable coronary symptoms; and
8. For disease surveillance.

\*See Cardiac Computed Tomography & Angiography (CCTA) L33423 for a full listing of contraindications to CCTA.

#### Definitions

*Artificial Intelligence Enabled CT Based Quantitative Coronary Topography (AI-QCT)/Coronary Plaque Analysis (AI-CPA)* - Artificial intelligence application to imaging obtained through coronary computed tomography (CT) scans to calculate coronary artery dimensions and degree of stenosis per vessel and coronary plaque composition and burden.<sup>4</sup>

*Calcified Plaque* - Higher density plaque, mostly composed of calcium, thought to be associated with lower clinical risk than non-calcified plaque. Traditionally, the overall burden of calcified plaque has been assessed indirectly through a coronary artery calcium score (CACS) or using cut off >350 Hounsfield Units (HU).<sup>5</sup> There is both calcified and non-calcified tissue present.<sup>6</sup>

*Coronary Artery Disease (CAD)* - Narrowing of the coronary arteries usually caused by plaque and atherosclerosis that can lead to ischemia of the heart.<sup>1</sup>

- Known CAD includes patient with prior anatomic testing with identified nonobstructive atherosclerotic plaque and obstructive CAD.<sup>1</sup>

*Coronary Artery Disease Reporting and Data System (CAD-RADS)* - A standardized method to communicate findings of CCTA.<sup>2</sup>

| Category   | Degree of maximal coronary stenosis                                          | Interpretation                                         |
|------------|------------------------------------------------------------------------------|--------------------------------------------------------|
| CAD-RADS 0 | 0%                                                                           | Absence of CAD                                         |
| CAD-RADS 1 | 1-24%                                                                        | Minimal non-obstructive CAD                            |
| CAD-RADS 2 | 25-49%                                                                       | Mild non-obstructive CAD                               |
| CAD-RADS 3 | 50-69%                                                                       | Moderate stenosis                                      |
| CAD-RADS 4 | 70-99% or left main $\geq$ 50% or 3-vessel obstructive ( $\geq$ 70%) disease | Severe stenosis                                        |
| CAD-RADS 5 | 100%                                                                         | Total coronary artery occlusion or sub-total occlusion |
| CAD-RADS N | Non-diagnostic study                                                         | Obstructive CAD cannot be excluded                     |

Coronary Computed Tomography Angiography (CCTA) - A non-invasive test using advanced computed tomography angiography imaging to view the tissues and blood vessels of the heart. This can be used to determine the presence and extent of CAD.

Coronary Plaque Analysis (CPA) - Analysis of coronary plaque composition and burden.

Fibrotic Plaque - A plaque with density of 131-350 HU.

High Risk Plaque (HRP) - High risk plaque findings include napkin-ring sign, low-attenuation plaque (LAP), positive vessel remodeling, low CT attenuation and spotty calcification.<sup>5,7</sup>

Invasive Coronary Angiography (ICA) - Invasive procedure done at the time of cardiac catheterization to look at the arteries of the heart and can determine the presence and extent of CAD.

Low Attenuation Plaque (LAP) - Low density plaque with dark appearance on CCTA and higher lipid content usually defined as attenuation of  $<30$  HU and associated with higher clinical risk. Density is measured in Hounsfield Units (HU) and low attenuation is -50 to 50 HU.<sup>5,8</sup>

Major Adverse Cardiac Events (MACE) - Fatal and non-fatal MI. Some studies also include unstable angina requiring hospitalization or revascularization.<sup>7</sup>

Non-Calcified Plaque (NCP) - A lower density plaque, often earlier in development and associated with higher clinical risk with density of 50-130 HU.<sup>5,8</sup> There is no discernible calcification present.<sup>6</sup>

Nonobstructive CAD - CAD with  $<50\%$  stenosis.<sup>1</sup>

Obstructive CAD - CAD with >50% stenosis<sup>1</sup>

Plaque- The presence of tissue structures  $\geq 1\text{mm}^2$  within or adjacent to the coronary artery lumen, identified and at least 2 independent planes, that can be distinguished from the surrounding tissues (epicardial fat) and the lumen.<sup>6</sup>

Quantitative Coronary Plaque Analysis (QCPA) - Imaging technique that provides objective and reproducible measurements of coronary artery dimensions and composition of the atherosclerotic plaques.

Quantitative Coronary Topography (QCT) - CT scan imaging that provides objective and reproducible measurements of the coronary artery dimensions and degree of stenosis per vessel.

## **Summary of Evidence**

A Contractor Advisory Committee (CAC) Meeting “Non-Invasive Technology for Coronary Artery Plaque Analysis” was hosted 5/25/23 by CGS Administrators, Noridian Healthcare Solutions, National Government Services, Palmetto GBA, and WPS Government Health Administrators. The transcript and audio are available on each Medicare Administrative Contractor’s (MACs) website.

## **Wisconsin Physicians Service Insurance Corporation (WPS)**

### **Local Coverage Determination (LCD): Coronary Computed Tomography Angiography (CCTA) (L35121)**

**Original Effective Date 10/01/2015**

**Revision Effective Date 10/28/2023**

Limitations:

1. The test is never covered for screening, i.e., in the absence of signs, symptoms or disease.
2. The test will be considered not medically necessary if the anticipated results are not expected to provide new, additional information to that already previously obtained from other tests (such as stress myocardial perfusion images or cardiac ultrasound). New or additional information should facilitate the management decision, not merely add a new layer of testing.
3. The test will be considered not medically necessary if pretest evaluation indicates that the patient would require invasive cardiac angiography for further diagnosis or for therapeutic intervention.
4. The test may be denied, on post-pay review, as not medically necessary when used for cardiac evaluation if there were pre-test knowledge of sufficiently extensive calcification of the suspect coronary segment that would diminish the interpretive value. (e.g., angina decubitus, unstable angina, Prinzmetal angina, etc.)
5. Coverage is limited to devices that process thin, high-resolution slices (1mm or less). The multi-detector scanners must have at least 64 slices per rotation capability.
6. The administration of beta blockers and the monitoring of the patient during MDCT/CCTA by a physician experienced in the use of cardiovascular drugs is included as part of the test and is not a separately payable service.
7. All studies must be ordered by the physician/qualified non-physician practitioner treating the patient and who will use the results of the test in the management of the patient.

8. The test must be performed under the direct supervision of a physician, similar to the stress myocardial perfusion imaging.
9. This LCD does not address electron beam tomography (EBT) technology or Ultrafast CT for coronary artery examination. There is no extension of coverage of EBT based on this policy.
10. Quantitative calcium scoring is not a covered service and will be denied as not medically necessary. Calcium scoring reported in isolation is considered a screening service. When performed in association with CT angiography, there is neither separate nor additional included reimbursement for the calcium scoring.
11. Atrial fibrillation or atrial flutter alone is not an indication; atrial fibrillation or atrial flutter with planned ablation therapy is allowed.

**Wisconsin Physicians Service Insurance Corporation (WPS)**  
**Local Coverage Article: Billing and Coding: Coronary Computed Tomography**  
**Angiography (CCTA) (A57552)**  
**Original Effective Date 11/28/2019**  
**Revision Effective Date 10/04/2024**

75571 is listed in the Group 2 Non-covered codes table.

*(The above Medicare information is current as of the review date for this policy. However, the coverage issues and policies maintained by the Centers for Medicare & Medicare Services [CMS, formerly HCFA] are updated and/or revised periodically. Therefore, the most current CMS information may not be contained in this document. For the most current information, the reader should contact an official Medicare source.)*

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## **Related Policies**

Contrast-Enhanced Computed Tomography Angiography (CTA, CCTA, MDCT, MSCT) of the Heart and/or Coronary Arteries

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## **References**

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7. Gulati M, Levy PD, Mukherjee D, et al. 2021 AHA/ACC/ASE/CHEST/SAEM/SCCT/SCMR Guideline for the Evaluation and Diagnosis of Chest Pain: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. Nov 30 2021; 144(22): e368-e454. PMID 34709879
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9. Wisconsin Physicians Service Insurance Corporation. Local Coverage Article Billing and Coding: Coronary Computed Tomography Angiography (CCTA). A57552 Original effective date 11/28/2019. Revision effective date 10/01/2024. [Article - Billing and Coding: Coronary Computed Tomography Angiography \(CCTA\) \(A57552\)](#) Accessed 3/14/25.

*The articles reviewed in this research include those obtained in an Internet based literature search for relevant medical references through 3/14/25, the date the research was completed.*

### Joint BCBSM/BCN Medical Policy History

| <b>Policy Effective Date</b> | <b>BCBSM Signature Date</b> | <b>BCN Signature Date</b> | <b>Comments</b>                                                                                                                                                                                                |
|------------------------------|-----------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6/3/02                       | 6/3/02                      | 7/2/02                    | Joint policy established                                                                                                                                                                                       |
| 2/16/04                      | 2/16/04                     | 3/1/04                    | Routine maintenance                                                                                                                                                                                            |
| 6/15/05                      | 6/15/05                     | 5/20/05                   | Routine maintenance                                                                                                                                                                                            |
| 1/10/06                      | 1/10/06                     | 3/10/06                   | Routine maintenance                                                                                                                                                                                            |
| 3/1/08                       | 12/11/07                    | 11/18/07                  | Routine maintenance                                                                                                                                                                                            |
| 9/1/10                       | 6/15/10                     | 6/29/10                   | Routine maintenance                                                                                                                                                                                            |
| 9/1/11                       | 6/21/11                     | 6/21/11                   | Routine maintenance                                                                                                                                                                                            |
| 11/1/11                      | 8/16/11                     | 8/16/11                   | Routine maintenance; title changed from Electron Beam Computed Tomography (EBCT) for Coronary Artery Disease to Computed Tomography to Detect Coronary Artery Calcification.<br>Added CPT code 75571 to policy |
| 5/1/13                       | 2/19/13                     | 3/4/13                    | Routine maintenance                                                                                                                                                                                            |
| 3/1/15                       | 12/12/14                    | 12/29/14                  | Routine maintenance                                                                                                                                                                                            |
| 7/1/16                       | 4/19/16                     | 4/19/16                   | Routine maintenance                                                                                                                                                                                            |
| 1/1/17                       | 10/11/16                    | 10/11/16                  | Routine maintenance                                                                                                                                                                                            |
| 1/1/18                       | 10/19/17                    | 10/19/17                  | Routine maintenance                                                                                                                                                                                            |
| 1/1/19                       | 10/16/18                    | 10/16/18                  | Routine maintenance                                                                                                                                                                                            |
| 1/1/20                       | 10/15/19                    |                           | Routine maintenance                                                                                                                                                                                            |
| 1/1/21                       | 10/20/20                    |                           | Routine maintenance<br>Ref added: 8,11,12,13,29                                                                                                                                                                |
| 5/1/21                       | 2/16/21                     |                           | Routine maintenance                                                                                                                                                                                            |
| 3/1/22                       | 12/14/21                    |                           | Routine maintenance<br>Ref added: 4, 5                                                                                                                                                                         |
| 9/1/22                       | 6/21/22                     |                           | Routine maintenance<br>Position change to covered, with criteria. Ref 1-5 added.<br>Risk score section added to Background.                                                                                    |
| 9/1/23                       | 6/13/23                     |                           | Routine maintenance (jf)<br>Ref 7 added from BCBSA                                                                                                                                                             |

|        |         |  |                                                      |
|--------|---------|--|------------------------------------------------------|
|        |         |  | Vendor Managed NA                                    |
| 9/1/24 | 6/11/24 |  | Routine maintenance (jf)<br>Vendor Managed: Carelton |
| 9/1/25 | 6/17/25 |  | Routine maintenance (jf)<br>Vendor Managed: Carelton |

Next Review Date: 2nd Qtr, 2026

**BLUE CARE NETWORK BENEFIT COVERAGE**  
**POLICY: COMPUTED TOMOGRAPHY TO DETECT CORONARY ARTERY CALCIFICATION**

**I. Coverage Determination:**

|                                                                                            |                                                             |
|--------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| <b>Commercial HMO<br/>(includes Self-Funded<br/>groups unless otherwise<br/>specified)</b> | Not covered                                                 |
| <b>BCNA (Medicare<br/>Advantage)</b>                                                       | See Government Regulations section.                         |
| <b>BCN65 (Medicare<br/>Complementary)</b>                                                  | Coinsurance covered if primary Medicare covers the service. |

**II. Administrative Guidelines:**

- The member's contract must be active at the time the service is rendered.
- Coverage is based on each member's certificate and is not guaranteed. Please consult the individual member's certificate for details. Additional information regarding coverage or benefits may also be obtained through customer or provider inquiry services at BCN.
- The service must be authorized by the member's PCP except for Self-Referral Option (SRO) members seeking Tier 2 coverage.
- Services must be performed by a BCN-contracted provider, if available, except for Self-Referral Option (SRO) members seeking Tier 2 coverage.
- Payment is based on BCN payment rules, individual certificate and certificate riders.
- Appropriate copayments will apply. Refer to certificate and applicable riders for detailed information.
- CPT - HCPCS codes are used for descriptive purposes only and are not a guarantee of coverage.