COMPUTED TOMOGRAPHY (CT) TO DETECT CORONARY ARTERY CALCIFICATION

Description: Computed tomography (CT) using either spiral (helical) CT, electron beam CT (EBCT), or multi-detector CT (MDCT) can be used as a method for detecting coronary artery calcification. The CT scan allows automated quantification of the total size and density of the calcium deposits, which is reported as a calcium score. The coronary artery calcium score is used as a predictor of adverse cardiac events.

Spiral CT, EBCT, and MDCT have faster scan times than conventional CT. Spiral CT is performed as the patient is transported continuously through the scanner and the scan device rotates around the patient in a corkscrew-like path. Modifying the spiral scanning technique by gating image acquisition to the electrocardiogram allows only those frames acquired during diastole to be utilized for analysis of coronary calcium. This has enabled the use of more readily available spiral scanners for the determination of a calcium score. MDCT uses multiple rows of detectors that spiral around the patient simultaneously during a rapid volumetric image acquisition. The current generation of MDCT scanners generally has at least 64 detector rows.

EBCT, also known as ultrafast CT, bounces a single, focused beam of electrons off a series of tungsten targets arrayed around the patient to acquire serial transaxial images of the heart and coronary arteries. Three-dimensional reconstructions of the coronary vasculature can be created. EBCT and MDCT were initially the primary fast CT methods for measurement of coronary artery calcification. More recently, CT angiography has been used to assess coronary calcium.

Policy: The use of computed tomography (CT) to detect coronary artery calcification is considered INVESTIGATIVE due to a lack of evidence demonstrating an impact on improved health outcomes.

Coverage: Blue Cross and Blue Shield of Minnesota medical policies apply
generally to all Blue Cross and Blue Plus plans and products. Benefit plans vary in coverage and some plans may not provide coverage for certain services addressed in the medical policies.

Medicaid products and some self-insured plans may have additional policies and prior authorization requirements. Receipt of benefits is subject to all terms and conditions of the member’s summary plan description (SPD). As applicable, review the provisions relating to a specific coverage determination, including exclusions and limitations. Blue Cross reserves the right to revise, update and/or add to its medical policies at any time without notice.

For Medicare NCD and/or Medicare LCD, please consult CMS or National Government Services websites.

Refer to the Pre-Certification/Pre-Authorization section of the Medical Behavioral Health Policy Manual for the full list of services, procedures, prescription drugs, and medical devices that require Pre-certification/Pre-Authorization. Note that services with specific coverage criteria may be reviewed retrospectively to determine if criteria are being met. Retrospective denial of claims may result if criteria are not met.

Coding: The following codes are included below for informational purposes only, and are subject to change without notice. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement.

CPT:
75571 Computed tomography, heart, without contrast material, with quantitative evaluation of coronary calcium

HCPCS:
S8092 Electron beam computed tomography (also known as ultrafast CT, cine CT)

Policy History: Developed May 10, 2000

Most recent history:
Reviewed October 12, 2011
Reviewed October 10, 2012
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Reviewed September 10, 2014

Cross Reference: Computed Tomography Angiography (CTA) for Evaluation of Coronary Arteries, V-14

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