

From: Bibb Allen <bibb@mac.com>
Subject: **Comments For Coronary CTA**
Date: December 11, 2005 11:54:58 AM CST
To: BLCDCComment@BCBSAL.org
 1 Attachment, 36.5 KB

Dear Fred,

I am disappointed that you have elected not to cover CCTA under Policy 21041.

There are a number of reasons that you should reconsider this position.

In regards to your position that the literature does not support the reimbursement of CCT and CCTA, please consider the following:

Scientific Evidence Supporting The Value Of Cardiac CT and Coronary CTA

While we understand the concerns raised in the BCBSA Technology Evaluation Center (TEC) Report (Volume 20, No. 4 May 2005), the report sets the bar unrealistically high by requiring long term outcomes data. Extending this logic, oncologic PET/CT scanning, admittedly one of the most important breakthroughs in the last few years would still be investigational. In addition, the blanket exclusion of all scientific literature that analyzes vascular segments or specific coronary arteries as opposed to the overall patient result undermines the value of the BCBSA analysis. We do not understand how BCBSA can assert that exams which detect critical stenoses of the proximal coronaries on CTA not be considered significant data elements just because a small distal coronary branch could not be evaluated due to motion or some other artifact?

Even after excluding what we feel is important data, the TEC Report states the remaining studies showed a 85-100% sensitivity for stenoses with a specificity of 75-86%, and a negative predictive value of 82-100%. More recent studies (see below) have yielded similar or better results. A sampling of radionuclide perfusion SPECT imaging results over the last 10 years (Kiat et al 1989, Iskandrian et al 1989, Kahn et al 1989, Solot et al 1993, Van Train et al 1994, and Azzarelli et al 1999) shows a very similar range of sensitivities (82-97%) and specificities (36-100%). The DATTA study (a meta analysis review of over 5000 patients) published by the AMA in 1994 showed SPECT imaging to have a sensitivity ranging from 83-98% and specificity of 53-100%. Anyone involved in regularly reading SPECT exams knows the artifacts and poorly evaluated areas such as the inferior wall due to frequent attenuation artifacts. While CTA may have its own limitations, the evolving data looks at least as good as the SPECT imaging experience.

Since the publication of the TEC Report other studies have been published which analyzed patients rather than arteries or segments. Heuschmid et al (AJR 2005) using MDCT in 37 patients reported a negative predictive value of CTA of 87% in all patients, but 99% in patients with calcium scores of less than 1000. Raff et al (JACC 2005) using 64 slice MDCT in 70 patients found a sensitivity of 90% for significant stenoses, specificity of 95%, and importantly a negative predictive value of 93%. White et al (AJR 2005) in studying patients with chest pain in the emergency department using 16 slice MDCT found a cardiac cause of chest pain with a sensitivity of 83% and specificity of 96%. For all cardiac and non-cardiac causes of pain the sensitivity and specificity were 87% and 96% respectively.

There were numerous additional scientific abstracts presented at the recent 2005 Radiological Society of North America (RSNA) conference in Chicago two weeks ago. Herzog et al specifically looked at the issue of per segment versus per patient stenoses using a 64 slice MDCT scanner. In the per patient analysis, they found a 100% sensitivity and specificity in 36 patients. Pugliese et al using a variety of 16 and 64 slice MDCT scanners in 153 patients found a sensitivity of 92-95% with a negative predictive value of 99%. Two other studies specifically addressed the issue of evaluating acute chest pain in the emergency department. Hoffman et al studied 30 patients with 16 or 64 slice MDCT. The negative predictive value was 100%. While all 30 patients were admitted to the hospital with the presumptive diagnosis of acute coronary syndrome, 23 would have been correctly not admitted on the basis of a negative CT. Gasper et al studied 29 emergency patients with 64 slice MDCT. These authors found that CT resulted in hospitalization being cancelled in 33%, early intervention postponed in 56%, and intervention changed in 34%. All of these changes in management were statistically significant. These same authors studied MDCT in 50 unselected patients as an adjunct to treadmill stress testing and found that 33% of 15 patients with equivocal treadmill studies had significant coronary artery disease. 21% had significant disease in the face of a normal treadmill test.

Local Coverage Determination Policies of other Carriers

Other Carriers have embraced reimbursement for coronary CTA. Blue Cross Blue Shield of Arkansas (Draft Policy) accepts as medically necessary the emergency evaluation of chest pain and the management of symptomatic patients with known coronary artery disease. Empire (Final Policy) and GHI (Final Policy) have well structured and detailed policies which include evaluation of chest pain due to cardiac and non-cardiac causes. These policies state that for cardiac causes, MDCT may be employed for..."facilitation of the diagnostic cardiac evaluation of a patient with chest pain syndrome (chest pain, anginal equivalent, angina). Depending on the clinical presentation, the MDCT for coronary artery evaluation may precede a perfusion stress test or may be used to clarify a perfusion stress test that is non-diagnostic, equivocal, or is inadequate in explaining the patient's symptoms". The policy goes on to list numerous other indications including congenital anomalies, symptoms that may be due to pulmonary emboli or aortic dissection, and "facilitation of the management decision of a symptomatic patient with known coronary artery disease". HGSA (Final Policy) lists similar medically necessary indications.

The underlying tenet that is addressed in some policies and that we support is that coronary CTA should not be used as a screening test, but rather as an examination in symptomatic patients or those with a moderate pre-test probability of disease or where symptoms and the results of other tests appear discordant. The selection of the test or tests should be made so that the resulting information facilitates management decisions and has been ordered by an appropriate medical practitioner.

Enclosed is a file that reflects our current knowledge regarding final and proposed LCDs for CCT and CCTA.



[LCDs for CT....xls \(36.5 KB\)](#)

If you determine is indicated, the following are considered the reasonable indications based on the current literature.

1. Coronary CTA can be used as a first test to determine the cause of chest pain

The current literature certainly supports this as a valid indication.

2. Coronary CTA used as a substitute for catheter coronary angiography in patients with non-diagnostic stress tests or stress imaging.

Studies show the negative predictive for CCTA is high. CCTA is a less invasive method to establish a negative diagnosis as compared to catheter angiography.

3. Coronary CTA can be used to evaluate the cause of symptoms in patients with known coronary artery disease.

New and/or changing symptoms can be evaluated without the use for stress imaging or catheter angiography.

4. Coronary CTA to evaluate the cause of chest pain or dyspnea in patients with prior bypass surgery of intracoronary artery stent placement.

Coronary bypass grafts are generally well seen with coronary CTA, and patency can be readily assessed.

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

6. Coronary CTA for evaluation of acute chest pain in the emergency room.

7. 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 EPS and biventricular pacemaker planning.

8. Use of coronary CTA prior to non-coronary artery cardiac surgery.

CCTA can be used to assess coronary artery occlusive disease in patients without symptoms undergoing valve replacement or other cardiac surgery.

9. Quantitative evaluation of coronary calcium to be used as a triage tool in patients with typical chest pain and unknown Agatston score to determine appropriateness of coronary CTA vs. catheter coronary angiography.

10. Quantitative evaluation of coronary calcium to be used as a triage tool or lipid-lowering therapy in patients with moderate to high Framingham Risk score.

After review of these comments, if you reconsider your coverage decision regarding the Category III codes for CCT and CCTA, I would like to have continued dialogue ICD coding, limitations, equipment and personnel requirements, etc.

Best regards as always,

Bibb