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| Origination Date: 11/01 | Revision Date(s): 9/02, 10/02, 7/03, 7/04, 7/05, 6/06, 6/07, 6/08 |
| Developed By: Medical Criteria Committee | |

Csaba Mera MD.

**Approved:** **Csaba Mera, MD** **Date:** 6/26/08

**Description:**
Electron Beam Computed Tomography (EBCT) is an ultra-fast CT scan, which is capable of identifying microcalcifications in the coronary arteries. The rationale for performing an EBCT is that calcium is deposited early in the formation of atherosclerotic plaques, and calcification may be useful as an early marker of the atherosclerotic process.

**Criteria:**
In depth studies to establish the value and indications for these tests have not been reported. Peer review literature does not substantiate the value of this test over current established technology. The American College of Cardiology/American Heart Association Consensus Document review indicates that the published literature does not clearly define which asymptomatic individuals would benefit from EBCT. The Consensus recommends that appropriately designed studies of EBCT for this purpose (of defining benefit) are strongly encouraged.

EBCT is considered to be an investigational diagnostic test and is not covered by ODS at this time.

**Information to be Submitted with Pre-Authorization Request:**
None. This is considered to be investigational.

**References:**


- External Cardiologist Review/Opinion (11/00)
- "ACC/AHA Expert Consensus Document on Electron-Beam Computed Tomography for the Diagnosis and Prognosis of Coronary Artery Disease". 2/2000
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- Redberg RF, Shaw LJ. A review of electron beam computed tomography: implications for coronary artery disease screening. Prev Cardiol 5(2):71-78, 2002.
- EBCT screening does not modify cardiovascular lifestyle risk. Hayes Alert. 6(5) May 2003.
- O'Malley PG, Feuerstein IM, Taylor AJ. Impact of electron beam tomography with or without case management, on motivation, behavioral change, and cardiovascular risk profile. JAMA 2003 May; 289(17): 2215-23.
- O'Malley PG, Greenberg BA, Taylor AJ. Cost-effectiveness of using electron beam computed tomography to identify patients at risk for clinical coronary artery disease. Am Heart J. 2004 July; 148(1):106-13.
- Pletcher MJ, Tice JA, Pignome M, et al. Using the coronary artery calcium score to predict coronary heart disease events. Arch Intern Med. 2004; 164:1285-1292.
- Screening for coronary heart disease: recommendation statement. Ann Intern Med. 2006 Apr 6;140(7):569-72.
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