Final Comments and Responses for Coronary Computed Tomography Angiography (CCTA) -

RAD-043

Comment

It was noted that atrial fibrillation and flutter alone is not an indication for CCTA, but a history of it with planned ablation therapy is allowed, and atrial fibrillation and flutter codes are listed in the LCD. It was asked if other coronary diseases or reasons, not listed in the LCD, will be considered when deciding to do CCTA?

Response

The diagnosis codes should be coded to the highest level of specificity and should support medical necessity for CCTA. The use of CCTA in atrial fibrillation and atrial flutter before planned ablation therapy is allowed because of the need for pulmonary vein mapping before invasive radiofrequency ablation.

Comment

Since it is common for many people to experience coronary signs and symptoms such as chest pain and shortness of breath, please clarify the indications for the CCTA test.

Response

The CCTA test is not covered for screening in the absence of signs, symptoms or disease. The test must be medically necessary. Diagnosis codes must be coded to the highest level of specificity and are listed in the LCD. They are too numerous to copy in this Comments and Response document.

Comment

Consider the approved indications from the 2010 Taylor ACC/AHA Appropriate Use Criteria Task Force for Cardiac Computed Tomography Angiography (CCTA). Specific issues include: a) There is a general indication for CCTA as an alternative to stress testing, rather than an alternative to catheterization. The Appropriate Use Criteria (AUC) approves CCTA for patients without prior known coronary artery disease (CAD) if they have intermediate likelihood as an alternative to stress testing even if they can exercise. If they can't exercise, this can be extended to low risk outpatients as well. b) The LCD says "atypical symptoms" but there is no distinction in types of symptoms in the AUC. Could it include typical angina as well? c) Consider the use of CCTA as an appropriate use for patients presenting with cardiomyopathy of unknown etiology to rule out CAD.

Response

This Taylor 2010 document is an update to the original CCTA cardiac magnetic resonance (CMR) appropriateness criteria published in 2006. It was written to reflect changes in test utilization, to incorporate new clinical date, and to clarify CCTA use.

a) The language will be adjusted to reflect that CCTA is appropriate for the detection of symptomatic CAD if there is an intermediate pretest probability of CAD and their EKG is uninterpretable OR they are

unable to exercise, in acute chest pain with intermediate pretest probability of CAD with no EKG changes and negative serial enzymes.

b) The language will be changed to include atypical and typical anginal symptoms.

c) The language will be changed to include CCTA as appropriate for a patient presenting with new onset heart failure to evaluate coronary arteries to assess etiology.

Comment

Consider the Society for Cardiovascular Computed Tomography (SCCT) practice guideline regarding high calcium scores: a) The use of specific threshold has not been validated and coronary CTA can still be useful in selected patients with a high calcium score. b) If the patient has had a non-gated and non-cardiac CT which reported severe coronary calcification, it might be difficult to quantify calcium and the above still applies. c) In CABG patient with extensive native coronary artery calcification, CCTA can be very useful to assess for graft patency; and with extensive native bypassed coronary artery calcification is irrelevant to the reason the examination is being performed.

Response

a) and b) The use of calcium scores is controversial because they may not be useful if a patient falls into either a low- or high-risk category. The coronary calcium scan won't tell you anything you don't already know that could have been obtained from a health history, physical health exam, and lab tests. This test is not advised for routine screening for coronary artery disease. Screening is not a covered benefit of Medicare. There needs to be more conclusive data in the form of research studies published in peer-reviewed medical journals that support the use of CCTA in the presence of high coronary calcium scores. Per the Taylor 2010 document there is an intermediate level risk of CHD which correlates to a 10-year absolute CHD risk between 10% and 20% for a high calcium score >1000.

c) Per the Taylor 2010 document it is considered appropriate (test is generally acceptable and is a reasonable approach for the indication) to use CCTA post CABG if the patient is symptomatic. If the patient is asymptomatic and the time of the prior CABG is <5yrs it is considered inappropriate (test is not generally acceptable and is not a reasonable approach for the indication) to do a CCTA. If the patient is asymptomatic but the time of the prior CABG is ≥ 5yrs it is considered uncertain (test may be generally acceptable and may be a reasonable approach for the indication. Uncertainty also implies that more research and/or patient information is needed to classify the indication definitively) to do a CCTA.