Effective Health Care

Risk stratification and CAD
Nomination Summary Document

Results of Topic Selection Process & Next Steps

- The topic, *Non-invasive Tests to Diagnose Patients with Suspected Coronary Artery Disease and to Risk Stratify Patients with Coronary Artery Disease*, will go forward for refinement as a systematic review. The scope of this topic, including populations, interventions, comparators, and outcomes, will be further developed in the refinement phase.

- When key questions have been drafted, they will be posted on the AHRQ Web site and open for public comment. To sign up for notification when this and other Effective Health Care (EHC) Program topics are posted for public comment, please go to http://effectivehealthcare.ahrq.gov/index.cfm/join-the-email-list1/.

Topic Description

Nominator(s): Organization

Nomination Summary: *Non-invasive Tests to Diagnose Patients with Suspected Coronary Artery Disease and to Risk Stratify Patients with Coronary Artery Disease* was ranked as a priority topic by a panel of stakeholders. Multiple non-invasive tests (NITs) are available to aid the evaluation of patients at intermediate risk of patients with coronary artery disease (CAD). While the test performance characteristics for each of these diagnostic strategies are known, the relative impact of these tests on clinical end points such as major cardiovascular events, hospitalizations, and mortality have not been characterized.

PICO from Nomination
Population(s): Patients with symptomatic and asymptomatic CAD
Intervention(s): Tests will be compared according to the stressor used (exercise, vasodilators [dipyridamole and adenosine] and dobutamine) and the method used to measure induced ischemia (e.g. electrocardiography, radionuclide myocardial perfusion imaging, and echocardiography)
Comparator(s): Another NIT or coronary angiography
Outcome(s):
- All patient-related benefits, including but not limited to: reduction in hospitalizations, major adverse cardiovascular events, and mortality.
- All patient-related harms, including but not limited to: higher utilization of elective cardiac catheterization without subsequent percutaneous coronary intervention, hospitalizations, major adverse cardiovascular events, and mortality

Key Questions from Nominator: What are the comparative diagnostic accuracy, diagnostic thinking, and therapeutic and patient outcome efficacy of NITs for the risk stratification of patients with CAD?

Considerations

- The topic meets all EHC Program selection criteria. (For more information, see http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/.)

- More than 500,000 men and women die from CAD each year in the United States (US). Despite recent decreases in mortality, heart disease remains the leading cause of death in the US for men and women.

- NITs can be used to diagnose symptomatic and asymptomatic patients with suspected CAD or with confirmed CAD. These tests are widely used, but the choice of NIT differs widely by clinician preference, availability, or setting. There is no clear guidance of what the test or combination of tests to use for patients with different risks.

- The majority of existing systematic reviews primarily focus on NITs to diagnose symptomatic patients with suspected CAD and solely on the test accuracy outcome. Reviews did not evaluate asymptomatic patients with suspected or known CAD. There are new primary studies that compared two or more NITs, evaluated NITs in the asymptomatic populations, and looked at outcomes other than test performance (e.g., clinical outcome, diagnostic decision-making, and therapeutic decision-making). Based on these findings there appears to be enough evidence to warrant a new systematic review of the literature.

.

.