



Effective Health Care

Post-Myocardial Infarction Depression

Nomination Summary Document

Results of Topic Selection Process & Next Steps

- *Post-Myocardial Infarction Depression* will go forward for refinement as an update of the existing comparative effectiveness or effectiveness review listed below. The scope of this topic, including populations, interventions, comparators, and outcomes, will be further developed in the refinement stage.
 - Bush DE, Ziegelstein RC, Patel UV, et al. *Post-Myocardial Infarction Depression*. Rockville (MD): Agency for Healthcare Research and Quality (US); 2005 May. (Evidence Reports/Technology Assessments, No. 123.) Available from: <http://www.ncbi.nlm.nih.gov/books/NBK37817/>.

Topic Description

Nominator(s): Organization

Nomination Summary: The nominating organizations requested an update of the 2005 AHRQ evidence report titled *Post-Myocardial Infarction Depression*, which has been archived. The nominator states that an updated report will help inform a clinical guideline on the topic. The nominating organization has a 2009 clinical guideline on the detection and treatment of post-myocardial infarction (MI) depression. This guideline was reaffirmed in 2014 for one year.

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Key Question 4 (numbering based on archived AHRQ report)

Population(s): Post-MI adults diagnosed with depression

Intervention(s): Treatment options including psychotherapy and antidepressants

Comparator(s): Those listed above (e.g., compared to each other)

Outcome(s):

1. Clinical outcomes: depression and depressive symptoms, total mortality, cardiac mortality, repeat-MI, resuscitated arrest, stroke, arrhythmias, and revascularization
2. Quality of life
3. Utilization of health care services: Readmission, total hospital days, and cost of care

Key Question 5 (numbering based on archived AHRQ report)

Population(s): Adults who have experienced an acute MI

Intervention(s): Screening tools for depression

Comparator(s): Those listed above (e.g., compared to each other)

Outcome(s): Accurate screening and diagnosis of depression during and after hospitalization

**Key Questions
from Nominator:**

1. What is the independent association of measures of depression with post-MI outcomes?
2. Does treatment of post-MI depression improve outcomes?
3. What are the performance characteristics of depression measures post-MI?
4. What is the comparative effectiveness of screening tools for depression post-MI?

**Key Questions
from 2005 AHRQ
Evidence Report:**

We confirmed with the nominating organization that these KQs encompass those included in the nomination.

4. Do post-MI patients with depression have better outcomes with depression treatment than do those without such treatment?
 - a. Do outcomes (e.g., cardiac outcomes and other non-depression outcomes) differ with or without improvement in depression for post-MI patients with depression who do receive depression treatment?
 - b. Do outcomes (e.g., cardiac outcomes and other non-depression outcomes) differ with or without improvement in depression for post-MI patients with depression who do not receive depression treatment?
5. What are the performance characteristics (e.g., sensitivity, specificity, reliability, and predictive value) of instruments or methods that are used to screen for depression (or depressive symptoms) after an acute MI?
 - a. What are the performance characteristics of instruments or methods that are used to screen for depression (or depressive symptoms) after an acute MI, during hospitalization?
 - b. What are the performance characteristics of instruments or methods that are used to screen for depression (or depressive symptoms) after an acute MI, within 3 months after hospitalization?

Considerations

- Heart disease is the leading cause of death for both men and women in the US. Myocardial infarctions (MIs) occur when plaque builds up in the coronary arteries. MIs may be treated with anticlotting medications, angioplasty, or coronary bypass surgery and may include lifestyle changes or cardiac rehabilitation. Post-MI patients may be at a greater risk for depression than individuals in the general population, and post-MI depression and anxiety may be more common in women.
- While there are screening tools for depression such as the Beck Depression Inventory, Hospital Anxiety and Depression Scale, and the Symptom Checklist-90 Depression Scale, the 2005 AHRQ evidence report on depression post-MI found that none of these instruments had been normalized for post-MI patients.
- Treatment for depression in post-MI patients may differ from treatment in the general population, as there is an increased risk for mortality and cardiac events post-MI. Depression post-MI may be a significant predictor of poor outcomes such as a repeat cardiac event or death. Treatments for depression include psychosocial interventions such as cognitive behavioral therapy and medications such as selective serotonin reuptake inhibitors. Lifestyle changes such as regular exercise may also be recommended to improve cardiac outcomes and address the symptoms of depression.
- This topic will move forward as an update of the archived 2005 AHRQ report Post-Myocardial Infarction Depression. A search did not find recent guidelines or literature reviews that comprehensively address

the topic. Based on our scan of the literature we identified sufficient studies for a new systematic review on this topic.