

Should High-Risk Statin Utilization Rates Be Increased For Complex AMI Patients?

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Description

Randomized controlled trials have shown that aggressively lowering low density lipoprotein cholesterol (LDL-C) with high-dose statins can result in a reduction of cardiovascular disease (CVD) events compared to moderate-dose statins. Current U.S. guidelines recommend at least a 50% reduction in LDL-C as desirable for cardiovascular prevention in patients following a heart attack, and recommend an even more aggressive goal for very high risk patients. In practice, however, less than 25% of high risk patients receive a high-dose statin, suggesting that providers remain uncertain about the benefits and harms of this treatment for many complex CVD patients. This study assessed the effectiveness of high-dose statin treatment for complex CVD patients. Results can help clinicians develop optimal treatment strategies for patients and help policymakers assess whether changes in high-dose statin utilization rates should be expanded from the current rate.

Specific Aims

1. Assess the risk, benefits, and costs of high-dose statin treatment following heart attack for patients with prior diagnosis of diabetes, congestive heart failure, or chronic kidney disease.
2. Translate findings to provide evidence for clinicians and policy-makers.

Findings

- High-intensity statin prescribing post-acute myocardial infarction varies with patient complexity.
- The more complex a patient is, the less likely that patient will be prescribed a high-intensity statin.
- Substantial geographic variation exists across the U.S. in high-intensity statin prescribing practices.

Main Objective

Assess the comparative effectiveness of high-dose statin treatment for complex cardiovascular disease patients.

Chronic Conditions Considered

Cardiovascular disease
Congestive heart failure
Diabetes
Chronic kidney disease

Study Design & Methods

Retrospective cohort design

Risk adjustment estimators (including propensity score methods) and moment-based instrumental variable estimators.

Data Sources & Sample Size

Medicare fee-for-service and medication claims data between 2007 and 2010 for more than 160,000 patients who experienced a heart attack in 2008 or 2009.

Strategies Addressed from the HHS Strategic Framework on Multiple Chronic Conditions

- 3.A. Identify best practices
- 4.C. Increase clinical research

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Implications

Results suggest that higher rates of high-intensity statin use post acute myocardial infarction can increase 1-year survival, but the magnitude and significance of these results vary across subsets of complex patients. High-intensity statin treatments may be warranted for patients with heart failure only, diabetes only, and chronic kidney disease plus diabetes.

Publications (as of September 2013)

Brooks JM, Cook EA, Chapman CG, Kulchaitanaoraj P, Chrischilles EA, Welch S, Robinson J. Geographic variation in statin use for complex acute myocardial infarction patients: evidence of effective care? Medical Care. In Press, 2014.

(Additional publications currently in preparation).

Posters and Presentations

Brooks J. Should high-risk statin utilization rates be increased for complex AMI patients? 60 Second Presentation at: the Agency for Healthcare Research and Quality Multiple Chronic Conditions Research Network Meeting, 2011 Sept 18-21; Bethesda, MD. Available at:

<http://www.ahrq.gov/about/annualconf11/video/specsessions/primecare02/index.html>



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