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In the Literature

Highlights from Commonwealth Fund-Supported Studies in Professional Journals

Hospital Strategies for Reducing Risk-Standardized Mortality Rates in Acute Myocardial Infarction: A Survey

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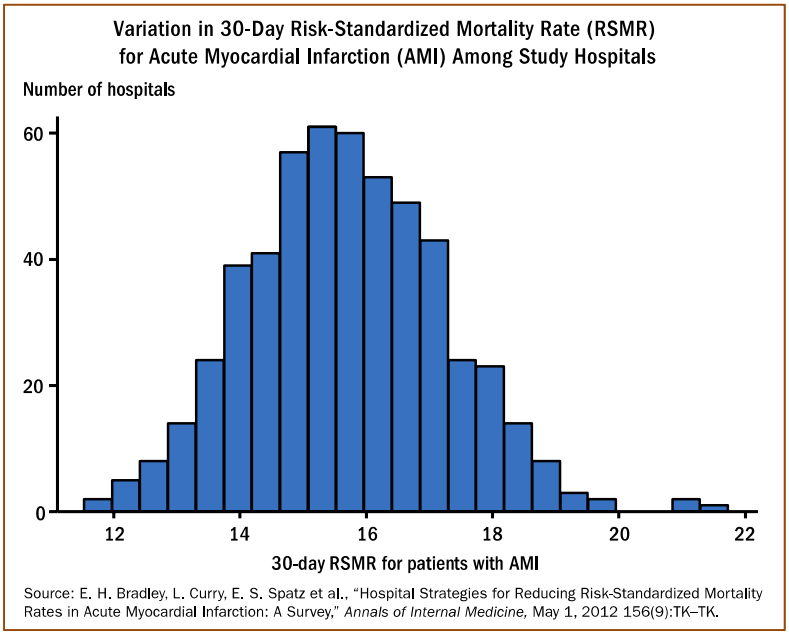
Synopsis

Several strategies adopted by hospitals appear to be associated with lower mortality rates for patients admitted with a heart attack, clinically known as acute myocardial infarction (AMI). These strategies include: holding monthly meetings between hospital clinicians and emergency medical services to review AMI cases; always having cardiologists on site; fostering an organizational environment that encourages creative problem-solving; not cross-training intensive care unit nurses for the cardiac catheterization laboratory; and having both physician and nurse champions.



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The Issue

Although deaths from heart attack have decreased significantly over the past decade, there is still substantial variation across U.S. hospitals in the number of patients who die within 30 days of hospitalization for AMI. Data from 2005 to 2008 show a more than twofold difference in variation in 30-day risk-standardized mortality rates (RSMRs) across hospitals nationally. Research has shown that certain variables—like medication adherence—can improve these rates, but less is known about strategic factors like communication and problem-solving. In this study, researchers surveyed more than 500 acute care hospitals to explore the associations between their strategies and mortality rates.

Key Findings

- Organizational environment or culture emerged as a central feature in higher-performing hospitals. Hospitals that encouraged creative problem-solving by clinicians had significantly lower mortality rates.
- Hospitals that held monthly meetings between hospital clinicians and emergency medical services to review AMI cases had substantially lower RSMRs than hospitals with less frequent or no regular meetings.
- Having cardiologists always on site was associated with significantly lower RSMRs.
- Hospitals with both physician and nurse champions—that is, leaders in the workplace who can influence the opinions of their colleagues and friends—had the lowest RSMRs, while hospitals with only nurse champions had among the highest RSMRs. The researchers suggest that hospitals with only nurse champions may have environments that are not conducive to quality improvement and interdisciplinary collaboration.
- Hospitals that cross-trained their critical care nurses to cover the cardiac catheterization laboratory had higher RSMRs, perhaps because the cross-training led to inadequate specialization in critical care nursing. The authors also propose that the higher RSMRs are an unintended effect of a cost-saving strategy.
- Fewer than 10 percent of the hospitals reported employing at least four of these five strategies.

Addressing the Problem

While the effect of individual strategies may be modest, the authors estimate that together they lower RSMRs by more than 1 percent. If this change could be achieved nationally, thousands of lives could be saved annually by interventions that involve little risk and relatively few resources.

About the Study

The researchers surveyed quality improvement directors at 537 acute care hospitals. To calculate 30-day risk standardized mortality rates, they used data reported to the Centers for Medicare and Medicaid Services from January 2008 through December 2009. They obtained data on hospital structural characteristics from the 2008 American Hospital Association Survey of Hospitals.

Bottom Line

If hospitals across the country adopted a set of low-risk, low-cost strategies for reducing mortality for heart attack—such as establishing monthly meetings between hospital clinicians and emergency medical services to review cases and encouraging creative problem-solving—thousands of lives could be saved annually.

Citation

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This summary was prepared by Deborah Lorber.