Surviving MI

AN ACC QUALITY INITIATIVE

September 26, 2014

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At the end of this webinar you will…

1. Understand the background research for Surviving MI which identifies the characteristics of top performing hospitals

2. Understand the evidence-based strategies associated with lower 30-day Risk Standardized Mortality Rates (RSMR)

3. Begin to understand the connection between the evidence and tactics disseminated through Surviving MI

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Speaker Bio

Henry H. Ting, MD, MBA, FACC

Senior Vice President and Chief Quality Officer, New York-Presbyterian Hospital, The University Hospital of Columbia and Cornell

Prior to July 2014
- Professor of Medicine
- Associate Dean, Mayo Clinic College of Medicine
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Speaker Bio

Elizabeth H. Bradley, PhD
- Professor of Public Health
- Director of the Yale Global Health Initiative
- Faculty Director of the Yale Global Health Leadership Institute
- Master at Branford College

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How Can Hospitals Reduce 30-Day Risk Standardized Mortality Rates After AMI?

ORIGINAL RESEARCH | IMPROVING PATIENT CARE

What Distinguishes Top-Performing Hospitals in Acute Myocardial Infarction Mortality Rates?
A Qualitative Study

Leslie A. Curry, PhD; Erica Spatz, MD; Emily Cherlin, PhD, MSW; Jennifer W. Thompson, MPP; David Berg, PhD; Henry H. Ting, MD, MBA; Carole Decker, RN, PhD; Harlan M. Krumholz, MD, SM; and Elizabeth H. Bradley, PhD

Background: Mortality rates for patients with acute myocardial infarction (AMI) vary substantially across hospitals, even when adjusted for patient severity; however, little is known about hospital factors that may influence this variation.

Objective: To identify factors that may be related to better performance in AMI care, as measured by risk-standardized mortality rates.

Design: Qualitative study that used site visits and in-depth interviews.

Setting: Eleven U.S. hospitals that ranked in either the top or the bottom 5% in risk-standardized mortality rates for 2 recent years of data from the Centers for Medicare & Medicaid Services (2005 to 2006 and 2006 to 2007), with diversity among hospitals in key characteristics.

Participants: 158 members of hospital staff, all of whom were involved with AMI care at the 11 hospitals.

Measurements: Site visits and in-depth interviews conducted with hospital staff during 2009. A multidisciplinary team performed analyses by using the constant comparative method.

Results: Hospitals in the high-performing and low-performing groups differed substantially in the domains of organizational values and goals, senior management involvement, broad staff presence and expertise in AMI care, communication and coordination among groups, and problem solving... diverse protocols or processes... teams, clinical guidelines... ciliation); however, these... performing from low-perf...

Limitation: The qualitative... theses, and statistical asse...

Conclusion: High-perform... organizational culture that... across the hospital. Evide... though important, may no... performance in care for p...

Primary Funding Source: ... Quality, United Health Fo...

Ann Intern Med. 2011;154:384-...
For author affiliations, see end...

IMPROVING PATIENT CARE | ORIGINAL RESEARCH

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

Elizabeth H. Bradley, PhD; Leslie A. Curry, PhD, MPH; Erica S. Spatz, MD, MHS; Jeph Herrin, PhD; Emily J. Cherlin, MSW, PhD; Jeptha Curtis, MD; Jennifer W. Thompson, MPP; Henry H. Ting, MD, MBA; Yongfei Wang, MS; and Harlan M. Krumholz, MD, SM

Background: Despite recent improvements in survival after acute myocardial infarction (AMI), hospitals nationally vary 2-fold in their 30-day risk-standardized mortality rates (RSMRs). Nevertheless, information is limited on hospital-level factors that may be associated with RSMRs.

Objective: To identify hospital strategies that were associated with lower RSMRs.

Design: Cross-sectional survey of 537 hospitals (reflecting a 91% response rate) and weighted multivariable regression by using data from the Centers for Medicare & Medicaid Services to determine the associations between hospital strategies and hospital RSMRs.

Setting: Acute care hospitals with an annualized AMI volume of at least 25 patients.

Participants: Patients hospitalized with AMI between 1 January 2008 and 31 December 2009.

Measurements: Hospital performance improvement strategies, characteristics, and 30-day RSMRs.

Results: In multivariable analysis, several hospital strategies were significantly associated with lower RSMRs and in aggregate were

associated with clinically important differences in RSMRs. These strategies included holding monthly meetings between hospital clinicians and emergency medical services to review AMI cases (RSMR lower by 0.70 percentage points), having cardiologists always on site (lower by 0.54 percentage points), fostering an organizational environment in which clinicians are encouraged to solve problems creatively (lower by 0.84 percentage points), not cross-training nurses from intensive care units for the cardiac catheterization laboratory (lower by 0.44 percentage points), and having physician and nurse champions rather than nurse champions alone (lower by 0.88 percentage points). Fewer than 10% of hospitals reported using at least 4 of these 5 strategies.

Limitation: The cross-sectional design demonstrates statistical associations but cannot establish causal relationships.

Conclusion: Several strategies, which are currently implemented by a few hospitals, are associated with significantly lower 30-day RSMRs for patients with AMI.

Funding Source: The Agency for Healthcare Research and Quality, the United Health Foundation, and the Commonwealth Fund.

Ann Intern Med. 2012;156:* * * FILL THIS IN * * *.
For author affiliations, see end of text.
www.annals.org

Mixed Methods

Qualitative, using sample of 11 top performing hospitals based on risk-standardized 30-day mortality rates (RSMR), in-depth interviews with 158 hospital staff ; constant comparative method of qualitative data analysis

Quantitative cross-sectional study, using random sample of acute care hospitals in the US, web-based survey for hypothesized determinants, and multivariable analyses of correlates of RSMR (n=539 reflecting a 91% response rate)

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Results

Differentiating Features of Top Performers

Feature	Examples
Organizational values and goals	Shared values to provide exceptional, high quality care; alignment of quality and financial goals
Senior management involvement	Provision of adequate resources; holding staff accountable for quality; use of quality data in management decisions
Broad staff presence and expertise in AMI care	Sustained physician champions; empowered nurses; involved pharmacists; high standards
Communication and coordination among groups	Diverse skills and roles; recognizing interdependencies; smooth information flow among groups
Problem solving and learning	Adverse events opportunities to learn; innovation and creativity in trial and error; learn from outside

Curry LA, Spatz E, Cherlin E, *et al*. What distinguishes top performing hospitals in acute myocardial infarction rates? *Annals of Internal Medicine*, 2011; 154:384-390.

Strategy Associated With Lower RSMR	% Points RSMR Decrease (% implementing)
Physician AND nurse champions for AMI care	0.92 (by 43%)
Organizational culture supports creative problem solving	0.66 (by 40%)
Monthly meetings with EMS to review AMI cases	0.61 (by 15%)
Nurses are not cross trained from ICU for the cardiac catheterization laboratory	0.41 (by 82%)
Pharmacists round on all patients with AMI	0.41 (by 35%)

Bradley EH, Curry LA, *et al*. Hospital strategies for reducing risk-standardized mortality rates in acute myocardial infarction. *Ann Intern Med*. 2012;156:618-26.

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The issue of having cardiologists on site 24-7
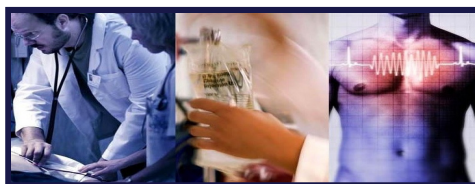
Reduction in RSMR 0.54 (implemented by 14%)

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What Goes Wrong?

Focus on checklist rather than real change; people execute the checklist but miss the culture part.

Changes are made but they do not integrate into the DNA of the organization, so when people turnover, systems are dropped.
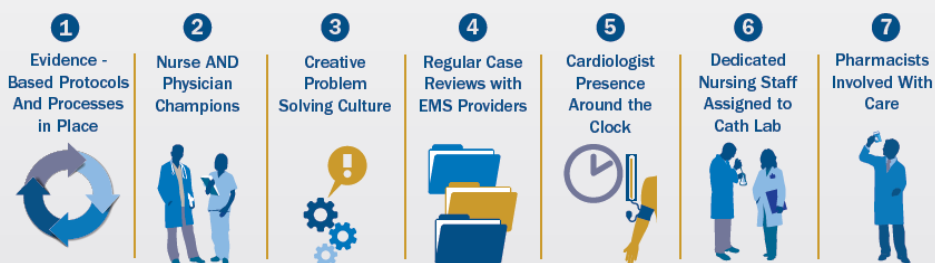
The environment shifts; other priorities dominate.

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Surviving MI Key Strategies

Key strategies affect the whole hospital and different members of the care team including physicians, nurses, pharmacists and hospital administrators.

1 Evidence - Based Protocols And Processes in Place

2 Nurse AND Physician Champions

3 Creative Problem Solving Culture

4 Regular Case Reviews with EMS Providers

5 Cardiologist Presence Around the Clock

6 Dedicated Nursing Staff Assigned to Cath Lab

7 Pharmacists Involved With Care

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Thank You

Please submit your questions for the moderated question and answer session.

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The Quality Improvement for Institutions program combines the ACC's NCDR data registries with toolkits and proven hospital-based quality improvement initiatives like Hospital to Home, the D2B Alliance and Surviving MI.

Release the power of your data at CVQuality.ACC.org.