

Administrative data feedback failed to improve quality of care in acute myocardial infarction

Beck CA, Richard H, Tu JV, Pilote L. **Administrative Data Feedback for Effective Cardiac Treatment: AFFECT, a cluster randomized trial.** JAMA. 2005;294:309-17.

Clinical impact ratings: Emergency Med ★★★★★☆☆ Hospitalists ★★★★★☆☆ Cardiology ★★★★★☆☆

QUESTION

In patients with acute myocardial infarction (AMI), does immediate feedback using hospital report cards improve quality of care?

METHODS

Design: Cluster randomized controlled trial (Administrative Data Feedback for Effective Cardiac Treatment [AFFECT] study).

Allocation: Concealed.*

Blinding: Blinded (study investigators and data handlers).*

Follow-up period: Up to 30 days after discharge.

Setting: 76 acute care hospitals in Quebec, Canada.

Patients: 5675 patients 20 to 105 years of age (mean age 67 y, 64% men) who were diagnosed with AMI. Exclusion criteria included admission to noncardiac surgical service, transfer from another acute care facility, AMI coded as an in-hospital complication, discharge alive with total length of stay ≤ 2 days, previous AMI within the past year, and invalid health card number.

Intervention: 38 hospitals (*n* = 2533) received rapid confidential feedback and 38

hospitals (*n* = 3142) received delayed (14 mo) feedback. Feedback consisted of 12 quality indicators based on administrative data for AMI care that were developed by a Canadian consensus panel.

Outcomes: Proportion of survivors of AMI at each study hospital who filled a prescription for a β-blocker, and mortality at 30 days.

Patient follow-up: 100% (intention-to-treat analysis).

MAIN RESULTS

Immediate feedback did not increase β-blocker prescription filling or reduce AMI mortality more than delayed feedback (Table).

CONCLUSION

In patients with acute myocardial infarction, immediate administrative data feedback to hospitals did not improve quality of patient care.

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*See Glossary.

Immediate feedback vs feedback delayed 14 months for acute myocardial infarction at 30 days after discharge†

Outcomes	Immediate feedback	Delayed feedback	RBR (95% CI)	NNH
β-blocker prescription	30%	32%	4.4% (−3 to 12)	Not significant
			RRR (CI)	NNT
Mortality	12%	12%	0.6% (−14 to 14)	Not significant

†RBR = relative benefit reduction. Other abbreviations defined in Glossary; RBR, RRR, NNH, NNT, and CI calculated from data in article.

COMMENTARY

Beck and colleagues' findings that early hospital feedback failed to improve adherence to management guidelines, while perhaps disappointing, enhance our understanding of the difficulties in influencing the complex and variable systems in which we provide care. It is not surprising that a report card to a hospital administrator did not change outcome. As the GAP study in post-MI management has shown (1), effecting even small increases in use of effective medications and care plans may require involvement of several layers of providers in a visible effort addressing multiple points in the care delivery spectrum. Larger and more rapid improvements may come, not with such strategies as computer systems, feedback loops, or utilization managers, but with spontaneous adaptation to compelling motivating forces, such as "pay for performance," which is likely to be imposed without proof of efficacy but may nonetheless work.

Perhaps the most important take-home messages from Beck and colleagues are that we do not perform as well as we think we do, systems are more complex than we think they are, improvements do not come as easily or quickly as we think they should, and no one really knows how to change systems. One can only hope that as the reimbursement directives impose change, investigators like Beck and colleagues will design and implement studies that help sort out what works and what doesn't.

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Reference

1. Mehta RH, Montoye CK, Gallogly M, et al. Improving quality of care for acute myocardial infarction: The Guidelines Applied in Practice (GAP) Initiative. JAMA. 2002;287:1269-76.