

Quality Measurement and Accountability in Cardiovascular Medicine

An Incomplete Revolution

The rise of quality measurement and the proliferation of programs that require accountability for quality are among the most dramatic developments in cardiovascular medicine in the past 2 decades. The quality revolution now affects the daily practice of virtually every cardiovascular clinician and has influenced national health policy. Over time, however, both the successes and limitations of the quality movement have become apparent. As is often the case with revolutionary changes, quality measurement and the uses of these measures merit reflection and consideration of further change.

For years, quality measurement played an insignificant role in medicine. This changed with a growing appreciation of substantial unexplained variation in health-care practice in parallel with seemingly unrestrained increases in care costs. The actions of the Health Care Financing Administration, now the Centers for Medicare & Medicaid Services, are illustrative of this evolution. Having employed the ineffectual approach of performing individual case review (quality assurance) of negative outliers, the Health Care Financing Administration adopted the relatively radical approach of measuring quality nationally in the hopes of stimulating improvement for all institutions and providers in the early 1990s.¹ The Health Care Financing Administration's Cooperative Cardiovascular Project measured the quality of care for acute myocardial infarction; subsequent efforts expanded to other high-impact conditions, including heart failure. Although these programs focused entirely on measuring processes of care (eg, rates of use of evidence-based therapies for acute myocardial infarction and heart failure) and did not address strategies for quality improvement, they introduced clinicians and hospitals to formal quality measurement on a national scale.

Since that time, the number of measures, the domains of measurement, and the uses of measures in cardiovascular medicine have expanded substantially. The National Quality Measures Clearinghouse of the Agency for Healthcare Research and Quality now catalogs nearly 2000 different measures,² many of which address cardiovascular disease. Although the preponderance are process measures, outcomes measures are becoming increasingly important. Simultaneously, the financial incentives associated with measurement have evolved substantially, from pay for participation to pay for reporting to pay for performance, increasing the extent to which quality measures will impact practice.

As quality measurement has become inextricably embedded in clinical practice, and as the implications of accountability have intensified, many clinicians have become fatigued with the measurement process and are skeptical that it improves clinical outcomes.³ Indeed, some have suggested that the additional work arising as a consequence of the avalanche of quality measures has contributed to physician burnout. Many process measures are considered irrelevant, either because performance is now so high that residual variation is of little clinical importance (eg, aspirin use in patients with acute myocardial infarction) or because they are perceived to lack a causal link to relevant patient outcomes (eg, documenting provision of hospi-

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tal discharge instructions). Evidence-based tools to improve performance, especially for outcomes measures, are rarely available. The effectiveness of measurement and reporting in improving patient outcomes and the opportunity costs of performance measurement programs have not been well characterized. MACRA (Medicare Access and CHIP [Children's Health Insurance Program] Reauthorization Act) of 2015, formalizing the Centers for Medicare & Medicaid Services transition from a fee-for-service structure (payment for quantity) to value-based reimbursement (payment for quality) is only increasing these anxieties and concerns.

Clearly, the accountability process must itself become more accountable. Because of the limitations of process metrics, measurement must accelerate toward a more parsimonious set of outcomes. Methodologically rigorous outcomes measures that can be ascertained through claims data have been developed and implemented in parallel with the retirement of many process measures. The availability of validated instruments and the pervasiveness of electronic health records should also permit the development of a broader range of validated outcomes measures, including patient-reported outcomes such as health status.² However, adopting risk-adjusted outcomes measures requires standardized data definitions; because electronic health records generally do not implement uniform data standards, national registries can fulfill this critical role. More meaningful patient-centered outcomes measures, in conjunction with cost data, also would improve our understanding of the value of care, which to this point has largely been elusive.

The science of understanding what works to improve outcomes must also become more rigorous, timely, and responsive. The use of readmission rates by the Centers for Medicare & Medicaid Services for public reporting and reimbursement was criticized because evidence-based approaches to reduce readmissions were unavailable. Recent evidence indicates that readmission rates for conditions under scrutiny by the Centers for Medicare & Medicaid Services have declined, suggesting that the pressures to improve have generated the desired results despite the uncertainty of how this was to be achieved.⁴ Although this is welcome news, generalizable and scalable tools for all institutions to achieve this success are not available. The practices responsible for these successes must be identified and disseminated broadly.

Furthermore, the net benefit of the readmissions reporting and incentive programs remains unclear without a more global perspective of their impact on the health-care ecosystem. Incentivizing health systems to reduce 30-day readmissions could introduce perverse incentives (eg, resistance to admit a recently hospitalized patient with heart failure, but only if that patient had been admitted to one's own institution) or could have adverse effects on other patient outcomes. Even if reducing readmissions produces benefits for patients with a specific

condition, the resources used for this purpose are not available for other efforts; ideally, it would be possible to optimize the allocation of available resources to the most efficient quality programs.

The ambitious objective of a clearer and broader understanding of the impact of quality initiatives within increasingly complex environments could be achieved with the emergence of learning healthcare systems, the foundation of which is the continuous generation, improvement, and application of knowledge.⁵ Currently, most systems overcome several barriers to achieve this capacity, including the need for real-time access to knowledge, electronic collection and analysis of care data, a culture of quality and learning, and incentives that are aligned to achieve high quality and value. Although MACRA of 2015 may help catalyze the transformation of systems by rewarding quality and promoting more robust informatics, clinicians must collectively and individually provide leadership in the healthcare environment for systems to achieve this capacity.

Given the limitations of the current state of quality measurement and reporting, and given that cardiovascular disease has been the focus of some of the most prominent national accountability programs, cardiovascular clinicians may be particularly jaded. This would be the wrong time to allow fatigue to justify disengagement. The American College of Cardiology and the American Heart Association have worked to engage in quality on a national level, providing the profession with a voice in what is measured and how measures are applied in practice. Although this voice is not always heeded, dogged participation in the process by clinicians is better than the alternative of measurement uncoupled from clinical reality. The quality movement is a marathon and not a sprint. Measurement and accountability are here to stay, and ensuring the highest quality care to patients is a principal professional responsibility for clinicians. We must continue to lead and facilitate the evolution of accountability for quality in the service of patients, and, in doing so, also serve our profession.

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FOOTNOTES

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REFERENCES

1. Jencks SF, Wilensky GR. The health care quality improvement initiative. A new approach to quality assurance in Medicare. *JAMA*. 1992;268:900–903.
2. Porter ME, Larsson S, Lee TH. Standardizing patient outcomes measurement. *N Engl J Med*. 2016;374:504–506. doi: 10.1056/NEJMp1511701.
3. Wachter RM. How measurement fails doctors and teachers. *New York Times*. January 16, 2016.
4. Zuckerman RB, Sheingold SH, Orav EJ, Ruhter J, Epstein AM. Readmissions, observation, and the hospital readmissions reduction program. *N Engl J Med*. 2016;374:1543–1551. doi: 10.1056/NEJMsa1513024.
5. Smith M, Saunders R, Stuckardt L, McGinnis JM, eds. *Best Care at Lower Cost: The Path to Continuously Learning Health Care in America*. Washington, DC: National Academies Press; 2013.