

Beware of False Wizards: The Need for More Research on Quality and Outcomes in Primary Care

Stephen F. Rothemich, MD
Richmond, Virginia

The Lion thought it might be as well to frighten the Wizard, so he gave a large, loud roar, which was so fierce and dreadful that Toto jumped away from him in alarm and tipped over the screen that stood in a corner. As it fell with a crash they looked that way, and the next moment all of them were filled with wonder. For they saw, standing in just the spot the screen had hidden, a little old man, with a bald head and a wrinkled face, who seemed to be as much surprised as they were.

—*The Wizard of Oz*¹

Quality, accountability, outcomes: these terms are an increasingly prominent part of the vocabulary of medicine. But have we looked behind the curtain? The time is now for primary care researchers to take an evidence-based approach to the quality movement. We need to find out which approaches to measuring and improving quality really work in our setting. Otherwise we risk someone else defining the agenda, and we may end up with a lot of useless parlor tricks and other unpleasant surprises.

It has been a year since the Institute of Medicine (IOM) Committee on the Future of Primary Care presented their report.² It outlines priority areas tied to the core elements of the IOM's definition of primary care. These elements include the majority of the population's health care needs, accessibility and integration of care, sustained partnerships, family and community context, and accountability for the quality of care. Regarding the quality of primary care, the committee made the following recommendation:

From the Department of Family Practice, Medical College of Virginia, Virginia Commonwealth University, Richmond. Requests for reprints should be addressed to Stephen F. Rothemich, MD, Department of Family Practice, PO Box 980251, Medical College of Virginia, Virginia Commonwealth University, Richmond, VA 23298-0251.

The committee recommends the development and adoption of uniform methods and measures to monitor the performance of health care systems and individual clinicians in delivering primary care as defined in this report. Performance measures should include cost, quality, access, and patient and physician satisfaction. The results should be made available to public and private purchasers of care, provider organizations, clinicians, and the general public.²

The implementation comments on this recommendation call for the involvement of private and public existing quality assessment groups, practicing primary care clinicians, public representatives, and the research community to work together to develop better means to monitor and improve quality. Although not specifically included in their list of recommendations, the report makes other important points regarding quality of care that expand the issue beyond just performance measures:

1. Substantial effort is also needed in developing methods to monitor health care outcomes and patient health status.
2. There is a need for both process and outcomes data regarding all of the objective areas in the primary care definition (accessibility, integration, accountability, etc.).
3. Difficult technical challenges are posed by case mix, enrollment instability, and the non-physician related factors that influence health care outcomes.

A recent series of articles outlines the current state of the art in assessing quality in medicine.^{3,8} There is agreement on many points. The public expects and deserves to receive quality medical care. Quality care includes care that is timely and accessible, engenders patient satisfaction, is delivered with optimal technical and interpersonal skill, and produces the best possible outcomes.⁹ We have, however, much to learn about how to measure the quality

of primary care. The above-mentioned challenges in the IOM report are formidable. If we are able to increase our research activity in these areas, the potential benefits are great. These include advancing our ability to define, measure, and improve quality in primary care settings and ensuring that efforts to contain medical costs do not threaten the quality of care for our patients.

Quality outcomes include not only biomedical endpoints but also health status and health-related quality of life.¹⁰ The majority of current medical research focuses on biomedical outcomes. We know very little about the linkage between the processes and outcomes of care.¹¹ For example, evaluations of the effectiveness of the prostate-specific antigen (PSA) screening test for prostate cancer should include not only the improvement in the detection rate and the benefit provided through treatment but also the potential declines in functional status and quality of life.¹² To provide quality care, we need more information about which subgroups might truly benefit from PSA screening so that we can help the most while harming the least.¹³ Agreement on the best processes of care will be possible only when we learn more about the positive and negative impacts on all important health outcomes. This more comprehensive view of the patient is also consistent with the values of primary care.

Health care organizations are beginning to look more closely at the components of quality care, often in response to accreditation groups such as the National Committee for Quality Assurance (NCQA).¹⁴ The NCQA Health Plan Employer Data and Information Set (HEDIS) measures, recently released in version 3.0, were designed to inform consumers in making choices between health plans. They include some intermediate outcomes data, such as the proportion of panel members who smoke, and some "hard" outcomes, such as mortality rates for certain surgical procedures. Although a health status measure in elderly patients is included in version 3.0, HEDIS is still focused primarily on performance measures and satisfaction. While these measures are a good starting place for measuring some aspects of quality of care at the population level, we need to learn much more before we can comprehensively evaluate the quality of care delivered to an individual patient and make comparisons at the provider level.⁸

For example, if my panel of patients is less likely,

even with my best educational efforts, to complete generally recognized health maintenance screening tests, should my care be judged as lower quality? How should we adjust outcomes measures such as functional status for the number and severity of comorbid conditions?¹⁵ We can measure functional health status, but does this inform us of the quality of care provided, or does it reflect more the effect of factors beyond the primary care provider's realm of influence? How do we take patient preferences into account when measuring and adjusting performance rates?¹⁶ Primary care research to answer these and similar questions can help ensure that health plans and especially individual providers are evaluated and compared fairly.

There is also reason to be concerned that as the profit in the health care delivery system shrinks, the pursuit of lower costs may overshadow emphasis on quality.^{5,8} Primary care research on quality can help to counter this pressure. In maturing managed care markets, the primary focus is on cutting costs in order to maintain market share by offering the lowest cost product. This creates a natural tension between cost control and quality of care, where payers must emphasize cost cutting in order to survive. As the markets mature and the cost of care becomes more uniform, the plans can compete more on the basis of services provided. Performance rates of services such as screening tests and physiologic endpoints as well as member satisfaction are emphasized and reported in HEDIS report cards. These important but incomplete measures may be promoted as evidence that a health plan produces good results. But to truly compete on the basis of quality, a more comprehensive perspective is required. More distant endpoints such as functional status and health-related quality of life must also be addressed. Primary care physicians, as patient advocates, will continue to have a strong interest in studying and maintaining quality throughout the stages of managed care market evolution. Their participation in multiple health plans also enhances their objectivity. By conducting research on quality of care, we can help ensure that our patients continue to receive the best possible care as these market transitions take place.

There are certainly advantages of doing research on outcomes and quality in the primary care setting. Measuring quality in a comprehensive way, especially outcomes research, often requires tracking

patients for many years. Measuring the frequency of different outcomes is more difficult when patients enter and leave the study population. This "denominator problem" has been the focus for criticism of practice-based epidemiological research in the past.¹⁷ It will be easier, however, to follow patients for many years in primary care practices than at the health plan level; there is less movement of patients between primary care providers than between health plans when individuals' insurance coverage changes, as most primary care physicians are on the provider panels of multiple competing health plans. We can also draw upon the tradition of successful practice-based research networks and use their statistical power to rigorously test interventions to improve quality.¹⁸ The primary care physicians' coordinating role also provides a central perspective from which to study the quality of the entire health care delivery system as it affects their individual patients. This broader perspective, the lesser denominator problems, the power of research networks, and the patient advocate role offer a powerful argument for primary care being the center of focus for outcomes research.

In summary, the time is now for researchers in family medicine to address the issues of how to measure and improve the quality of care and outcomes in our setting. If we fail to do this well, we risk our discipline being forced to adopt quality measures of unproved value that may be unfair to use in making provider comparisons. Even worse, we risk losing the opportunity to define a clinical research agenda that has promise for truly making a difference in what we do and how well it helps our patients. The recommendations in the IOM report are a good starting point, but we must do even more in the areas of health status outcomes,

case mix, and the links between the process and outcomes of care. Beware of false wizards: it's time for an evidence-based approach to quality. Let's look behind the screen with wonder and not wait for it to fall over and surprise us.

REFERENCES

1. Baum LF. *The Wizard of Oz*. Chicago, ILL: Childrens Press, 1969.
2. Institute of Medicine. *Primary care: America's health in a new era*. Washington, DC: National Academy Press, 1996.
3. Blumenthal D. Quality of care—what is it? *N Engl J Med* 1996; 335:891-4.
4. Brook RH, McGlynn EA, Cleary PD. Measuring quality of care. *N Engl J Med* 1996; 335:966-70.
5. Chassin MR. Improving the quality of care. *N Engl J Med* 1996; 335:1060-3.
6. Blumenthal D. The origins of the quality-of-care debate. *N Engl J Med* 1996; 335:1146-9.
7. Berwick DM. Payment by capitation and the quality of care. *N Engl J Med* 1996; 335:1227-31.
8. Blumenthal D, Epstein AM. The role of physicians in the future of quality management. *N Engl J Med* 1996; 335:1328-31.
9. Wenzel RP. Historical perspectives. In: Wenzel RP, ed. *Assessing quality health care: perspectives for clinicians*. Baltimore, Md: Williams & Wilkins, 1992.
10. Ware JE. The status of health assessment 1994. *Annu Rev Public Health* 1995; 16:327-54.
11. Greenfield S. Measuring the quality of office practice. In: Greenfield S, Nash DB, eds. *Providing quality care*. 2nd ed. Ann Arbor, Mich: Foundations of the American College of Healthcare Executives, 1995.
12. Budenholzer BR. Prostate-specific antigen testing to screen for prostate cancer. *J Fam Pract* 1995; 41:270-8.
13. Woolf SH. Screening for prostate cancer with prostate-specific antigen. An examination of the evidence. *N Engl J Med* 1995; 333:1401-5.
14. Iglehart JK. The National Committee for Quality Assurance. *N Engl J Med* 1996; 335:995-9.
15. Greenfield S, Sullivan L, Dukes KA, et al. Development and testing of a new measure of case mix for use in office practice. *Med Care* 1995; 33:AS47-55.
16. Bowman MA. The quality morass. *Fam Med* 1992; 24:107-10.
17. Wood M, Mayo F, Marsland D. Practice-based recording as an epidemiological tool. *Annu Rev Public Health* 1986; 7:357-89.
18. Nutting PA. Practice-based research networks: building the infrastructure of primary care research. *J Fam Pract* 1996; 42:199-203.