

*Quality of Health Care***PART 3: IMPROVING THE QUALITY OF CARE**

QUALITY of care is making a comeback. After more than two decades of preoccupation with the costs of health care, more attention is being devoted to quality. But much of the attention is coming from unlikely sources — organizations more often associated with efforts to reduce costs. Employers are talking about the quality of health care.^{1,2} Managed-care companies and insurers talk about it.^{3,4} Data touted as measures of quality are increasingly appearing in newspaper and magazine articles.⁵⁻⁷ The Health Care Financing Administration and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) have called for a more cooperative effort to enhance quality.^{8,9}

Physicians may be forgiven if they are dubious. They have heard it before. In the 1970s, peer review was supposed to improve the quality of care. In the 1980s, it was quality assurance. Quality improvement is the chosen phrase of this decade. In the 1960s we talked about improving the quality of care primarily in terms of increasing access to health care for specific populations. The solution was to subsidize health insurance for the poor and the elderly. In the 1990s we hear that marketplace competition will improve quality and that public “report cards” are the answer.¹⁰

SKEPTICISM ABOUT QUALITY IMPROVEMENT

Many physicians doubt that the current emphasis on quality is really aimed at improving their patients' health. I believe this skepticism has three sources. First, physicians see little difference between new “quality improvement” efforts and the quality-assurance programs that continue to harass them. A great deal of anecdotal evidence suggests that the latter, with their emphasis on finding errors in medical practice and imposing punitive, sometimes humiliating sanctions, make practicing physicians' lives difficult. Furthermore, physicians believe that such programs rarely deal with issues they regard as important for patient care. Traditional quality-assurance efforts most often focus on issues identified by regulatory agencies or accreditation organizations. Their agenda has typically consisted of checking documentation, studying credentialing processes, reviewing the work of oversight committees in hospitals, and the like. Rarely do they try directly to improve health outcomes for patients. It should not be surprising, therefore, that physicians are skeptical

when the quality-assurance officer who has been conducting such a program at a hospital (and usually continues to do so) announces the beginning of a new, collaborative attempt to improve quality.

The second reason for skepticism is the paucity of evidence that, as a whole, previous quality-assurance programs actually did anything to improve outcomes for patients. Data documenting the effectiveness of newer approaches are likewise scant. Whether one looks at the kind of collaborative quality improvement endorsed by the Health Care Financing Administration and the JCAHO and advocated by many or the marketplace competition hailed by some economists, there are few hard data to show that these efforts improve health outcomes. Physicians' training leads them to expect that convincing evidence of effectiveness should accompany any requirement to alter the way they care for patients.

Many who try to bring a more cooperative spirit to improving quality find that there is a third reason for being skeptical. Much of what passes for quality improvement can justifiably be viewed as thinly veiled cost containment or marketing. When hospital teams charged with achieving “continuous quality improvement” focus on reducing stays and try to engage physicians in such exercises, the physicians may understandably feel that quality of care is made to play second fiddle to the imperative to reduce expenditures. Many employers' programs to identify “centers of excellence” are essentially schemes to negotiate low-cost package deals for specific services in return for the funneling of more patients to the chosen institutions. Any attempt to document excellence in outcomes and efforts at improvement is little more than window dressing.

So physicians have legitimate questions. What, if anything, is new about this focus on quality? Can any of it help us take care of our patients? Or does it just camouflage efforts by health plans and hospitals to reduce costs? I believe there is something new here and that it can help physicians improve health outcomes for their patients.

NEED FOR NEW APPROACHES TO QUALITY IMPROVEMENT

Several developments have brought us to the point where efforts to measure and improve the quality of care can directly benefit patients and help physicians provide better care. So much information about the efficacy and effectiveness of health services (under ideal and actual conditions, respectively) is now published that physicians cannot keep current by the traditional means of reading selected journals and going to a few meetings. They have neither the training nor the time to sift through the literature, identifying rigorous studies and then compiling their findings into meaningful guides to clinical practice. The evolving science (and art) of meta-analysis is a

starting point for many new efforts to measure quality and a powerful tool for systematically summarizing research data on efficacy and effectiveness.¹¹⁻¹³

Valuable as such research is, however, it is too rare and too narrowly focused to be the only direct guide to treatment decisions, even if clinicians could keep up with it all. Expert clinical judgment will always be needed to extrapolate from the few rigorous data on efficacy to the far broader range of circumstances facing practicing physicians. For example, the many randomized trials of coronary-artery bypass grafting have all excluded patients with previous bypass surgery. How are we to decide when repeat surgery will benefit these patients, who represent an increasing proportion of potential candidates for this procedure? Awaiting more randomized trials is not an acceptable strategy. In the past, clinicians relied on consultants or review articles for the expert judgment needed to supplement the data on efficacy emerging from clinical research. These sources were sometimes supplemented by committees of specialty societies that issued their own opinions.

But these sources are severely limited by inherent biases. How can a practicing physician know how well a consultant or author understands the increasingly complex data on efficacy and effectiveness? How can that physician know whether the consultant's clinical opinion is outlandish or mainstream? Besides the progress in assimilating efficacy data systematically and quantitatively, more formal methods of combining expert clinical judgments have been developed.¹⁴ Some of these methods use quantitative approaches to measure how strongly the experts feel about particular opinions and to determine whether there is agreement or disagreement.¹⁵ When systematic assessment of the data is combined with a formal process of consensus to marshal expert clinical judgment, authoritative and reliable practice guidelines can result that give clinicians greater confidence in making treatment decisions. The guidelines produced by the Preventive Services Task Force,¹⁶ those of the Agency for Health Care Policy and Research,^{17,18} and the RAND appropriateness guidelines^{19,20} are among the best examples. They use up-to-date methods to analyze the literature on effectiveness, incorporate the expert judgment of a multidisciplinary group of clinicians in systematic ways (though there is substantial variation on this point), and avoid the ambiguity that plagues many such efforts. In general, they come closest to meeting the criteria for good guidelines established by the Institute of Medicine.^{21,22}

Of course, guidelines are no substitute for more and better research on what does and does not work. Incorporating well-constructed guidelines into practice may increase the use of effective interventions and decrease the use of ineffective ones, both of which will benefit the quality of care. Expanding our

knowledge of efficacy and effectiveness, however, requires an increasing investment in rigorously designed clinical research.

QUALITY IMPROVEMENT AND BETTER OUTCOMES FOR PATIENTS

Thus, the explosion of scientific information about health care has necessitated new methods of analyzing these data and synthesizing them with expert clinical judgment in order to give practicing physicians useful advice. These methods are only beginning to be used. Their potential is just beginning to be tapped. At the same time, the science of quality measurement has developed useful, practical tools that have already improved patient care in some instances and have the potential to do so more widely. Practice guidelines, particularly when combined with other methods of communication, such as feedback on performance and education by respected peers, have been shown in randomized trials to improve both the process and the outcomes of care.^{23,24}

Some of these measurement tools involve calculating risk-adjusted outcomes that permit physicians and hospitals, often for the first time, to compare their performance with that of their peers — not to punish poor performers, but rather to provide the information necessary for quality improvement. Mortality after bypass surgery has been reduced by this approach.²⁵⁻²⁷ Practicing physicians need such information to make informed clinical decisions. It is one thing for a randomized trial to show that carotid endarterectomy improves the survival of patients with asymptomatic carotid stenosis of 60 percent or more when it is performed by surgical teams with a combined rate of stroke and mortality of less than 3 percent.²⁸ Surgeons were carefully screened for eligibility to participate in that trial by a committee that reviewed each one's past performance.²⁹ It is quite another thing for community physicians to find out which surgical teams in their localities perform this procedure with outcomes that are similar or better. Practicing physicians do not ordinarily have access to such data today, but they must in the future.

Some of the new tools of quality improvement permit us to understand much better how errors creep into clinical practice. This kind of analysis, adapted from industrial models, involves studying in detail all the steps involved in providing a particular kind of care. It does not seek to identify errors in order to assign blame, but instead assumes that faulty systems of care are very often responsible for errors. Fixing systems by reducing unwarranted variations in the provision of care can be much more effective in reducing errors than punishing people.

Recent data, for example, suggest that many hospitalized patients are injured by avoidable adverse ef-

fects of drugs.³⁰ Administering the wrong dose of a drug, the most common error, accounted for 28 percent of all errors.³¹ These errors did not originate with a single ignorant physician or a small group. Rather, they were distributed among many physicians, order transcribers, pharmacists, and nurses. The analysis suggests that crucial information on dosing should be more readily available at critical stages and that monitoring for dosing errors should be improved (for example, with computerized systems instead of manual processes).

Other tools facilitate the compilation of complex clinical data in order to help physicians make difficult decisions more easily and accurately. Preventable errors in using antibiotics are one of the most frequent causes of adverse drug events. The need to consider many variables simultaneously in designing regimens of antibiotics for sick patients is one important cause of errors. Age, body-surface area, renal function, history of allergy, site of infection, and local sensitivity patterns of likely causative organisms are among the most critical considerations. Researchers at LDS Hospital in Salt Lake City documented the beneficial effects of computer programs that help physicians decide about prophylactic and therapeutic antibiotic regimens. The favorable outcomes included a 30 percent reduction in adverse events from antibiotics, a 27 percent decline in mortality among antibiotic-treated patients, and reduced drug costs per treated patient.³² Researchers at the same institution showed that a detailed algorithm for providing mechanical ventilation to patients with adult respiratory distress syndrome could reduce unwarranted variation in practice and markedly improve survival.³³

I think physicians have good reason to reassess their understandable skepticism about earlier programs to improve the quality of care. Quality measurement has contributed clinically reliable and valid methods of analysis that researchers increasingly use to show that new approaches are benefiting patients' health. These measures are increasingly used in collaborative arrangements.

Although health plans and insurers may emphasize lowering costs, physicians are in the best position to make the case for improving quality. Showing vigorous leadership in assessing and improving the quality of care can not only improve outcomes for patients, but also give physicians renewed autonomy over the practice of medicine. By specifying precisely what quality means and how it should be measured, physicians will specify how medicine should be practiced. By working with health plans and employers to reduce costs, physicians can ensure that considerations of quality rise to the top of the agenda. By focusing cost-containment efforts on reducing the inappropriate use of health services and avoiding preventable adverse effects, physicians can

cut costs and improve quality at the same time. Pursuing this strategy can avert the need to control costs with blunt instruments, such as increased co-payments and severely restricted freedom of choice, which may lower costs but also pose serious barriers to necessary and appropriate care.

The chairman of a large, for-profit health plan is reportedly fond of saying that "it doesn't count unless you can count it."³⁴ For a long time, quality could not be convincingly counted or measured. That is no longer true. It can be measured and improved with demonstrably beneficial effects. In a health care system increasingly focused on costs, it is time for physicians to embrace quality measurement and improvement enthusiastically and use these tools to make quality count for more than just window dressing.

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