Patient-Centered Medicine

The Next Phase in Health Care

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What matters most to patients are outcomes: Did I recover? Is my quality of life better? Patients want to know what has been accomplished by the tests and treatments they have undergone and what has been achieved by the time and resources that have been expended. It is time for us to fully embrace patient-centered medicine, which is ultimately outcomes oriented, with a focus on what patients experience and, among the range of medically reasonable options, gives precedence to what patients prefer.

The practice of medicine has evolved from supposition-based to science- and evidence-based, often extrapolating laboratory science to the bedside. However, studies that include patient outcomes are showing, with discomforting frequency, that strategies once considered optimal often fall short of their promise when success is defined as an improvement in what the patient experiences.1–4

Intermediate end points are not a primary concern for patients. Surrogate end points matter only to the extent that they convey information to the patient about the effects of an intervention.5 Unfortunately, surrogate end points have limitations in their ability to convey this information.6 There are gaps between expectations fostered by basic science and what happens to patients. Knowledge of human physiology and pathophysiology does not always reveal which strategies will improve the likelihood that a particular patient will achieve better outcomes.

Changes in risk factors do not always change patient risk in predictable ways. For example, rosiglitazone, which effectively reduced blood sugar levels in patients with diabetes, was not expected to increase the risk for heart disease, but it likely does.7,8 Torcetrapib, which effectively raised high-density lipoprotein levels, was not expected to increase mortality risk, but it does.9 Dilating a stenosis of the renal artery in patients with uncontrolled or refractory hypertension, or unexplained renal dysfunction was expected to have a clinical benefit, but it did not in a recent prominent study.10

Even interventions that produce benefits for patients in clinical trials may not do so in everyday practice because of differences in care settings and the way that the interventions are provided. For example, a study that showed a benefit of carotid endarterectomy over medical therapy was conducted in highly experienced centers.11 A subsequent study revealed substantially higher mortality rates in lower-volume centers, which could tilt the favorable risk-benefit ratio12 that was initially demonstrated. In stroke trials of fibrinolytic therapy, drugs were provided under a strict protocol and an average benefit was demonstrated.13 A subsequent study of these drugs as used in practice revealed that common errors in application along the care pathway undermine the benefit of the therapy and markedly increase its danger.14

The failure to reproduce trial results in a real-world setting also may, in part, be attributable to the differences between patients enrolled in trials and those seen in practice. For example, spironolactone, a drug that produced an extraordinary benefit in a trial of a selected group of patients with heart failure,15 may have caused a spike in hospitalizations for hyperkalemia when given to a broader group of patients, many of whom would have been excluded from the trial.16

Even when trial participants are similar to patients who receive the intervention in practice, there may be patients whose experiences do not parallel those of the overall group. Moreover, the average effect may not reflect the response of individuals, each with their distinctive biology, psychology, and social situations.

Patient-centered medicine requires that new approaches be demonstrated to have value as measured, in part, by the patient experience. Innovation must continue to be supported and encouraged, but we cannot afford to adopt expensive technologies that lack clear benefits according to that criterion. Robotic surgery makes for compelling advertising, but we must prove whether a marginal gain for patients will justify the costs.17 The array of treatments for prostate cancer includes a spectrum of cost profiles, yet substantial uncertainty remains about the degree of variability of the results and whether characteristics of individual patients can affect the value of the treatments.17

A focus on outcomes from the patient perspective would require a shift in the culture of medicine. As a community of healthcare professionals, we should not be satisfied with our strategies until we know that they ultimately improve patients’ lives. From the outset, medical training needs to emphasize the critical evaluation of new products and the importance of outcomes in the context of what individual patients value and desire. When we do not know how interventions may affect patient outcomes, we should disclose our uncertainty as part of the decision-making process, and be clear about what is known.
Most importantly, patient-centered medicine requires the support of a data infrastructure that captures the reality of how clinical and public health practices affect outcomes. Current quality assurance monitoring generally focuses on specific processes and often ignores the final results for patients. Instead, we need sophisticated surveillance systems that track the results achieved for individuals as well as the healthcare system. The tracked outcomes ought to include mortality, clinical events, satisfaction with care, costs, and patient-reported functional and health status. Within practices and regions, we must focus on issues of adherence, execution, and access to fully understand why some strategies fail.

A patient-centered orientation would place a premium on shared, long-term accountability achieved through a coordinated team effort that incorporates the patient’s perspective. A patient’s interaction with the healthcare system often is not demarcated by physician or site but, rather, experienced as episodes of care that stretch over time and across venues. Patients with cancer do not compartmentalize the results they experience in the hospital from the results they experience in their physician’s office; they care about whether their overall treatment is successful and whether their symptoms are managed.

Evidence-based medicine calls for adherence to the best scientific knowledge available, and indeed, that remains vital. Patient-centered medicine with an outcomes orientation implies accountability for the results that are achieved by the application of strategies in the real world, including those that have been vetted in trials. Trial evidence is not sufficient validation that a strategy actually is improving outcomes; direct assessment of outcomes in practice is an essential component that must be embedded into our evaluation of the healthcare system.

A truly patient-centered approach is one that ensures that the improvements in care and outcomes sought through the scientific efforts of our profession keep both real-world patients and settings in view. We must move from assumptions about what we accomplish to proof of the results that we achieve. We need to ask what our efforts have done to make it more likely that patients achieve what they desire given the tools available to us, and we need to be sure that we continually hold ourselves to the standards of patient-centered medicine.

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References


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