Practice Guidelines: Promise or Panacea?

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Practice guidelines have been promoted in the past few years as a strategy to: reduce wide variations in clinical practice for a given problem; reduce inappropriate care; improve the quality of care; and contain costs. While there is a growing number of professional organizations, academic medical centers, and federal agencies developing practice guidelines, few clinicians appear to be aware of this activity. Most physicians, however, are all too familiar with medical review criteria used by hospital and managed care utilization review committees, insurers, and the Health Care Financing Administration to authorize and reimburse specified clinical services. It is in this guise that physicians understandably fear the development of practice guidelines.

Recommendations that guide clinical practice have existed for some time. They are the substance of most medical textbooks, journal articles, and expert opinion. The American Academy of Family Physician (AAFP) defines a clinical policy as "a recommendation issued for the purpose of influencing decisions about health interventions."[1] The Agency for Health Care Policy and Research (AHCPR) defines practice guidelines as "systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances."[2] A great deal already has been written about the development of guidelines.[2–4] "Good" clinical practice guidelines are intended to influence medical decision-making by summarizing scientific data about a clinical problem; by combining this information with the costs, outcomes, and patient preferences for varying management strategies; and by recommending management of the clinical problem that is supported by this information.

What is new about practice guidelines is the growing belief among health policy experts, federal and state officials, hospital and health care administrators, and managed care organizations that the use of such guidelines will improve care and contain health care costs. The intention of this editorial is to provide a perspective on the reasons for which practice guidelines are being promoted and the data that support such expectations.

What Issues Are Practice Guidelines Intended to Solve?

There are at least four interrelated issues that have fueled the burgeoning guidelines movement in the United States. They include (1) widespread variations in clinical practice for a given condition, (2) evidence of inappropriate or wasteful care, (3) an increasing interest in the quality of health care, and (4) the escalating costs of care.

When faced with the same clinical information, different physicians may reach very different conclusions.[5] Whether it involves the interpretation of coronary angiograms by cardiologists,[6] the indications for prostate, thyroid, or coronary bypass surgery by surgeons,[7] or the diagnosis and treatment of urinary tract infections by family physicians,[8] widespread management differences are apparent. Any family physician who has provided coverage for another physician's patients knows that each has a very different practice style. These differences are not explained by characteristics of the patient or the problem, or by the differences in outcomes achieved. Rather, they may be explained by clinical uncertainty about the "best" option, preferences of patients for one option over another, physician factors that are poorly understood, or other determinants of clinical behavior.

Inappropriate or wasteful care is said to be common. The work of Brook,[9] Chassin,[10] and others[11,12] suggests that 17% of coronary angiograms, 32% of carotid endarterectomies, and 17% of upper gastrointestinal endoscopies are inappropriate.

Recent interest in the quality of health care parallels

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the concerns regarding rising costs of care. The relatively recent focus on outcomes of care reflects longstanding difficulties in linking what actually occurs in practice to the subsequent health status of patients. Determining how best to measure health status outcomes and quality of care is itself an emerging science.

Over the past decade, health care expenditures in the United States, whether in absolute dollar terms or relative to the gross domestic product, have increased faster than spending in other countries, and the gap between the United States and other major industrialized countries has increased.[13] International comparisons consistently place the United States below other developed nations for selected health indicators, eg, infant mortality,[14] life expectancy at birth,[15] and cardiovascular disease mortality,[16] and public satisfaction with the health care system.[17] It is not difficult to understand the widespread concern that the American public is not getting its money's worth.

Practice Guidelines: Expectations and Evidence

The promise that practice guidelines will address the above issues is unquestioned by policymakers in Washington, DC, and by health care administrators of hospitals and health plans around the country. The use of appropriately crafted, scientifically based clinical guidelines is widely perceived as a viable strategy for reducing practice variation, defining appropriate care, and improving health care outcomes. For example, the 1989 federal legislation establishing the Agency for Health Care Policy and Research instructed it "to promote the quality, appropriateness, and effectiveness of health care" by developing "clinically relevant guidelines that may be used by physicians, educators, and health care practitioners to assist in determining how diseases, disorders, and other health conditions can most effectively and appropriately be prevented, diagnosed, treated, and managed clinically."[18]

Despite these perceptions, there is very limited evidence that guidelines can improve the quality of care. That which does exist suggests that guidelines, protocols, or algorithms can change physician behavior when systems are in place to support and monitor guideline recommendations.[19–21] The effect of these tools to improve quality of care is largely inferential or theoretical. Similarly, there is no direct support for the belief that guidelines will reduce costs.[22] By limiting the management and referral options of physicians for a particular condition, it is inferred, but not proven, that the costs of care will be lowered.

The literature on appropriateness of care is equally sparse, and provides conclusions that are difficult to generalize.[23] Appropriateness criteria have been applied to people receiving a particular procedure rather than to the larger group of people experiencing symptoms or complaints, some of whom receive that procedure. Inappropriate care has become synonymous only with overuse or wasteful care.

The absence of support for the outcomes resulting from the use of guidelines does not mean that they will disappear. Studies of the impact of guidelines developed at the National Institutes of Health Consensus Conferences, for example, failed to demonstrate a change in physician practice patterns that could be attributed to these recommendations.[24] These conferences, however, are still ongoing. The strong political pressures to use practice guidelines as a component of an overall health reform package suggest that the absence of current data on guideline effectiveness may be less important than having a conceptually appealing and comprehensible framework for limiting health care costs by modifying physician behavior.

It is rare that scientific support for any guideline is sufficiently strong to warrant its use as a standard of care.[25] Nevertheless, medical review criteria and medical performance measures rest on the assumption that guidelines can be transformed into standards.

There is currently no evidence that the use of guidelines improves the quality of care or reduces health care costs. Indeed, there is some suggestion that they may increase costs by recommending underutilized services, eg, evaluation of urinary incontinence and depression. The use of guidelines to reduce inappropriate care is itself a double-edged sword, as "inappropriate care" can be either of two extremes: overutilization or underutilization. Studies of appropriateness have more commonly assessed overuse than underuse. Correcting overuse of health care services involves limiting or restricting services. Underuse, on the other hand, indicates a need for resources or services that are not currently provided. To the degree that current health reform initiatives promote the use of fewer and less costly resources, conflicts between medical appropriateness and resource availability may be inevitable.

The Future of Practice Guidelines

Most guidelines developed at the federal level address clinical dilemmas in daily practice that generate high health care costs. At AHCPR, for example, guideline topics (eg, management of cataracts) are selected if they are condition-specific, are of high prevalence and high

financial cost, carry a significant burden of suffering for which health outcomes are identifiable and modifiable, and if there is sufficient scientific information of reasonable quality and quantity to support guideline recommendations. Other guidelines developed by the congressional Office of Technology Assessment or the Office of Health Technology Assessment at AHCPR evaluate the usefulness of specific costly procedures or technologies.

Guidelines issued by professional societies are of variable quality, rarely incorporate costs of care or patient preferences, and frequently serve specialty self-interest (such as assigning hospital privileges) rather than promote the public's health. In this regard, clinical competency and clinical privileges—of particular interest to family physicians—are not areas that are well addressed in the scientific literature and are therefore not appropriate for inclusion in practice guidelines.

The insufficient scientific basis supporting many medical decisions will require some combination of expert judgment and scientific information to formulate practice guidelines. How this is to be done, particularly when conflicts arise between expert opinion and inadequate information, is critical to the guideline development process.

The future of the practice guidelines "movement" may not hinge on its ability to improve patient outcomes and reduce health care costs. The potential of guidelines to constrain or limit variations in practice patterns when the health outcomes from practices are equivalent may be enough to justify their role in medical practice.

Whether guidelines fulfill their promise or merely become a tool for cost-containment, rationed care, specialty self-interest, and privilege may not be the most important question. It seems clear that practice guidelines are here to stay in one form or another. As Dr David Eddy has written, "It is not stretching things too far to say that whoever controls practice policies controls medicine."[26] The real question for family physicians is: who will have such control? To pretend that guidelines are a passing fad or that control over the guidelines process is best left to someone else will be at our own peril.

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