

ACC NEWS

President's Page: Guidelines: Tools for Building Better Patient Care

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"The great end of life is not knowledge but action."
Thomas Henry Huxley (1825–95)

Caring for patients requires wisdom and creativity founded on an organized body of information that is always evolving. Continuing medical education and the formulation and dissemination of formal clinical practice guidelines help keep practitioners informed about new developments in the diagnosis and treatment of patients.

The American College of Cardiology (ACC), alone or in conjunction with other organizations, notably the American Heart Association (AHA) and the American College of Physicians–American Society of Internal Medicine, currently provides on its Web site, <http://www.acc.org>, 17 sets of practice guidelines developed over the past two decades. Recently posted are the practice guidelines for atrial fibrillation (AF), a globalization milestone of sorts. The effort incorporates the wisdom and insights of the ACC and its frequent partner, the AHA, as well as—for the first time—the European Society of Cardiology. These new guidelines about AF represent an effort to standardize and modernize the management of an increasingly common cardiovascular disorder while reconciling transatlantic differences in health economics, delivery systems, and cultures of clinical care.

Such guidelines are distillations of contemporary knowledge and substantiated insights into the most common cardiovascular disorders. They also represent consensus expert opinion on how to apply them to patient care and are one of the College's most valuable accomplishments. Practice guidelines may be among the most effective methods for helping clinicians maintain state-of-the-art proficiency; but they work only if they are used, and therein lies a bigger challenge.

DO PRACTICE GUIDELINES ACTUALLY IMPROVE PATIENT CARE?

Peer-reviewed evaluations have generally concluded that they do, but there are plenty of caveats. In a 1993 review of 59 post-hoc assessments of different published practice guidelines—ones that met prospectively defined standards of "scientific rigor"—55 of the assessments noted significant improvements in care after the guidelines were introduced (1). The extent of improvement varied widely, however, possibly due to the different ways the guidelines were

compiled and promoted. For example, an assessment of guidelines for handling common medical complaints in 16 Canadian family practices found a 32% increase in compliance when family physicians were involved in developing the guidelines but only a 22% increase when other groups developed them (2). In another case, a Medicaid directive reinforced guidelines that restricted the use of antibiotic injections for respiratory infections (3). Following that directive, antibiotic prescriptions decreased by 60% while other prescriptions remained stable. However, in another assessment, traditional studying (reading scientific papers) as a method for educating residents about preventive care guidelines was followed by only a slight increase in compliance by that group (4). The lesson is that guidelines *can* succeed, but there are often unanticipated forces at work that either encourage or discourage their use.

BARRIERS TO GUIDELINE SUCCESS

An analysis of the effects of certain guidelines issued by the Agency for Healthcare Research and Quality (then the Agency for Health Care Policy and Research) focused on a number of mechanisms responsible for the failure of guidelines to improve patient care as intended (5). For example, barriers to the success of emergency department triage recommendations for patients with suspected acute myocardial ischemia included: 1) inconsistent interpretation by emergency department physicians; 2) limited relevance of the recommendations to outpatient management; 3) ambiguity about exceptions to the recommendations; 4) an unmanageable increase in the demand for intensive-care beds; 5) unknown effects on clinical outcomes; and 6) organizational barriers, such as conflict with local administrative policies.

In a 1999 review of 76 published studies that encompassed 120 physicians surveys spanning a wide range of clinical disciplines, seven types of barriers to physician adherence to published guidelines were cited (6). They included unawareness that the guidelines existed; unfamiliarity with their content; disagreement about whether the guidelines were based on correct interpretation of the evidence, were worth the potential patient risk or discomfort, or amounted to "cookbook" medicine; skepticism that the recommended action could actually be carried out; lack of outcome expectancy, or disbelief that recommended

actions would have the intended consequences; inertia to change previous practice habits; and external barriers, such as time limitations. The review concluded that efforts to increase adherence to practice guidelines would be more likely to be successful if they accounted for the multifactorial nature of the problem.

ATTRIBUTES OF SUCCESSFUL GUIDELINES

The Institute of Medicine (IOM) (7) has identified eight attributes of effective clinical practice guidelines, which it proposed as criteria on which to evaluate guidelines once implemented. The underlying theme centers on credibility and accountability, bywords of medicine today. According to the IOM, guidelines likely to be successful—

1. Typically produce the predicted clinical outcomes;
2. Are reliable and reproducible (i.e., all things being equal, another set of experts would be likely to compile the same guidelines, and the multitude of clinicians using them would interpret and apply them the same way);
3. Apply as much to their explicitly defined patient populations as the evidence and expert judgment permit;
4. Specify exceptions to the recommendations;
5. Are worded precisely and unambiguously in a logical, easily accessible format;
6. Are based on evidence and expert judgment from all of the relevant specialties and subspecialties;
7. Stipulate when updates are to be performed; and
8. Detail “. . . the procedures used in developing the guidelines, the participants involved, the evidence used, the assumptions and rationales accepted, and the analytic methods employed . . .”.

The ACC has long recognized the need to design its practice guidelines in a way that promotes success by minimizing barriers to acceptance and adherence. The participation of other medical societies ensures that the widest diversity of opinion and intellectual resources is incorporated. In other words, broad consensus promotes legitimacy.

Disclosure and the soundness of the foundation on which the guidelines are based are also key indexes of legitimacy. The guidelines are meticulously documented. Whenever possible, they derive from evidence-based data taken from trials whose methods are clearly described. The strength of the cited evidence is well defined. Clinical situations that qualify for exceptions to the recommendations are clearly indicated. Recommendations without demonstrated effectiveness are clearly labeled as such and presented as the product of an expert consensus. “Key to the value and esteem in which the opinions are held is that they derive from their expert colleagues, not other parties with vested interests in the guidelines, such as third-party payers or government policymakers,” according to the IOM (7).

The ACC's guidelines are never cookbooks or paint-by-numbers sets. They are written and formatted to encourage

creativity and independent judgment by the clinician on the premise that such subjective contributions are essential to providing quality patient care. Indeed, the guidelines ultimately do not work without such judgments, and they must be considered to be what they actually are, *guidelines*.

A widely cited definition of high-quality health care focuses on the “technical excellence” of the care delivered, meaning the appropriateness of the services provided and the skill with which they are delivered, in tandem with the nature of the communication between the physician and the patient (8). Essential components of that communication include its quality and depth, the extent to which the physician maintains the patient's trust, and the physician's capacity for treating the patient with “concern, empathy, honesty, tact, and sensitivity.” Only one component of this definition, the appropriateness of services, is addressed in depth by practice guidelines. It is up to the practitioner's analytical prowess, skill, insight, creativity, compassion, and professionalism to provide the rest.

APPLICATION OF THE GUIDELINES

The College, recognizing that most clinicians request some assistance in keeping up to date on developments in their field, disseminates its guidelines in a range of formats that complement and provide alternatives to traditional publication in journals. All are available in searchable form on the College's Web site. Seven of them have been condensed into a convenient and portable pocket format, including four—guidelines for the management of chronic stable angina, acute myocardial infarction (AMI), valvular heart disease and implantation of pacemakers and antiarrhythmic devices—that can be downloaded into a handheld computer using a Palm operating system. To make the guidelines as timely as possible, their electronic publication can precede their traditional journal publication by months, thereby circumventing the delays so often associated with print publication. Guidelines are given further airtime at the ACC Annual Scientific Session and regional meetings.

Also, the primary recommendations of certain practice guidelines are being reformulated into performance measures, which are developed jointly by the ACC and the AHA to help practitioners measure their own abilities. Two sets of performance measures are in development, one for AMI and another for heart failure.

In 1999, the College launched a pilot trial for a series of regional programs, called the Guidelines Applied in Practice, or GAP, Project. As I mentioned in a previous president's page (*Quality of Care: A Moving Target Worthy of Pursuit*; November 15, *JACC*), the goal of these programs is to encourage and promote the application of practice guidelines for the improvement of patient care. The pilot GAP Project centered on the guidelines for AMI in the Detroit area of Michigan and has been extraordinarily successful. It is, as all GAP Projects will be, tailored to the special needs of local care providers. It is anticipated,

however, that every regional GAP Project, regardless of the disease entity targeted, will share certain strategies and traits. As envisioned, they all will—

- Emphasize the evidence-based nature of the recommendations in the practice guidelines,
- Foster the creation of partnerships to achieve specific common goals,
- Rely on the influence of local opinion leaders to promote and validate the guidelines,
- Be addressed not only to cardiologists but to all care providers with a stake in cardiovascular care,
- Adapt to local conditions and interests,
- Seek to involve the patient in their implementation, and
- Use data to motivate guideline adoption and evaluate the progress of the program itself.

The AHA has independently developed a similar program called “Get With the Guidelines,” which is initially focusing on the post-discharge care of patients with AMIs. The College and the AHA are studying ways for GAP and “Get With the Guidelines” to function and evolve together.

The goal of all these efforts is to foster consistently high-quality cardiovascular care everywhere possible because adherence to practice guidelines discourages the *overuse* of treatments and diagnostic procedures such as widespread inappropriate use of coronary angiography, carotid endarterectomy, and coronary bypass surgery (9–11). It also helps correct the *underuse* of some treatments, such as beta-blockers, aspirin, angiotensin-converting enzyme inhibitors, and thrombolytic agents in patients with acute coronary syndromes (12), and can discourage the *misuse* of treatments and procedures, decreasing the prevalence of adverse events associated with incorrect or substandard use of resources (13).

Adherence to practice guidelines will encourage *cost-effective patient care*, although not necessarily reduce the cost of care. According to the IOM (7), “Some guidelines undoubtedly will save money by reducing the use of inappropriate services; some will increase costs by encouraging more use of underutilized services; and some will shift costs from one service or place or payer to another. The net impact on costs cannot be predicted with confidence, even if the priorities for guidelines development focus on clinical conditions for which overuse of expensive services is suspected. Nevertheless, if guidelines do succeed in improving the appropriateness and hence the *value* of this country's expenditures for medical care, then the endeavor will be a success.” Adherence to practice guidelines also promotes respect by demonstrating a high degree of state-of-the-art

excellence in a way that can be easily evaluated by nonclinicians. As a manifesto for our specialty, the guidelines codify our actions for the rest of the world, including not only patients but also policymakers, third-party payers, and others who may otherwise be skeptical or not see the appropriateness of certain decisions we make or actions we take.

“The great end of life is not knowledge but action,” according to the great 19th century thinker Thomas Henry Huxley. All the best science and insight we learn through clinical trials and other observation does us little good if we don't organize it and put it to work to achieve the great good for which it is intended.

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