

# Challenges in Measuring Adherence to Clinical Practice Guidelines

*Whether 'tis nobler in the mind to suffer the slings and arrows of outrageous fortune, or to take arms against a sea of troubles and by opposing end them?*

—Shakespeare, *Hamlet*

Family physicians have expressed a broad range of concerns regarding practice guidelines and other clinical policies. These concerns include (but are certainly not limited to) skepticism about the scientific accuracy of recommendations, uneasiness about infringement on autonomy in clinical care, and apprehension regarding potential adverse consequences if wrongly applied by third parties.<sup>1-4</sup> But practice guidelines are here to stay, and the wise physician will carefully choose approaches that are well suited to the task of responding appropriately to the panoply of guidelines which daily cross our paths. The options described in Hamlet's familiar soliloquy need not be the only alternatives for responding to practice policies that are less than ideal. The slings and arrows of unacceptable guidelines should not be suffered, nor should we be foolish enough to believe that opposition to the concept of practice guidelines is likely to result in their disappearance.

One characteristic in which some practice policies fall short of ideal relates to the practicability of measurement of physician adherence to guidelines. In this issue of the *Journal*, James and colleagues describe their efforts to address several logistic issues related to measuring adherence to practice guidelines.<sup>5</sup> They examine the Agency for Health Care Policy and Research (AHCPR) clinical practice guideline for evaluation and care of patients with heart failure in an attempt to develop review criteria incorporating the perspec-

tive of family physicians. Their efforts illustrate some of the challenges and limitations inherent in the measurement of selected aspects of physician performance.

The development of the AHCPR heart failure guideline has been described in detail elsewhere.<sup>6</sup> After the guideline was developed, the AHCPR panel was asked to select which of the guideline's practice recommendations it felt were suitable for retrospective utilization review and quality assessment, and then to develop performance measures and standards of quality for use in monitoring compliance with their recommendations.

The report describing that process is fascinating reading.<sup>7</sup> When asked to convert its 34 recommendations to measurable review criteria and standards of quality, the AHCPR panel was able to describe only eight appropriate criteria. In the words of staff for the panel,

...the most striking finding of Phase II of the heart failure guideline effort is the extent to which panelists objected to the use of most guideline recommendations for the purposes of assessing practice patterns. Objections were based on three premises: (1) there is a significant prospect for misuse of the recommendations by payers, attorneys, and administrators; (2) the recommendations cannot cover every conceivable clinical circumstance, so clinicians must remain free to interpret the guideline in light of individual patient characteristics; and (3) utilization review programs are already a major hassle for physicians and the use of additional recommendations could make the situation worse.

Other challenges to the process included concern about the lack of documentation even though services had been provided, questions about feasibility of monitoring, and disagreement of panelists with the panel's own recommendations.

It is little wonder, then, that a panel of 11 family physicians and 1 cardiologist struggled with developing review criteria for the same guideline. Although the authors characterize their methods

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as "explicit and rigorous," the subjective nature of the exercise is evident in the analysis. For instance, James et al indicate that the satisfaction of the family physician advisory panel with the guideline was high and that it was considered to be valid and useful as an educational resource for family physicians. It is not clear, however, how these conclusions were reached. Was this satisfaction assessed by the panel's global subjective judgment arrived at through free-ranging discussion? Was a Delphi-like approach used? Were explicit measures and definitions of satisfaction and usefulness developed? Even the AHCPR panel that developed the guideline apparently had reservations about the application of some of its components, and one wonders how rigorously the authors sought to establish disagreement with certain aspects of the guideline.

There may be less unanimity among family physicians regarding the acceptability of the guideline than this study suggests. The AHCPR guideline recommends that all patients with a diagnosis of heart failure should receive an initial assessment of left ventricular function by echocardiography, radionuclide ventriculography, or contrast ventriculography. This recommendation, accorded a B-level grade (supported by well-conducted case-control studies, uncontrolled or poorly controlled studies, or conflicting evidence tending to favor the recommendation) apparently means that the practice is not supported by randomized controlled trials or well-conducted cohort studies. Some studies have suggested that family physicians are less likely than other specialists to report adherence to this recommendation.<sup>8</sup>

Investigators at PRO-West, the Medicare quality improvement organization of Washington State, recently conducted an assessment of congestive heart failure care in 74 Washington State hospitals during 1993. Although patients attended by family physicians were less likely than patients treated by cardiologists to have an echocardiogram while hospitalized, the use of angiotensin-converting enzyme (ACE) inhibitors was similar across specialties (unpublished data, PRO-West, Seattle). Findings were similar in a comparable study conducted by PRO-West in a smaller number of hospitals in Alaska.<sup>9</sup> Whether such differences reflect lack of agreement with guidelines after careful consideration, lack of knowledge, or other factors is not known.

James et al describe their efforts as a translation of the heart failure guideline into review criteria. It would be more accurate to state that an attempt was made to decide which recommendations could be developed for review criteria. The review criteria in Table 3 are actually the original text AHCPR recommendations. The Institute of Medicine defines review criteria as "systematically developed statements that can be used to assess the appropriateness of specific health care decisions, services and outcomes," and distinguishes review criteria from the guidelines themselves.<sup>10</sup> The confusion between guidelines and review criteria has been discussed elsewhere.<sup>11</sup> Thus, while the authors have addressed the potential for measurability using a standard approach, considerably more work would be required to show the validity and reliability of specific medical record review criteria that could be used for physician profiling and related activities.

James et al excluded 19 recommendations on the basis of an assumption that compliance could not be assessed by review of available data sources (presumably the medical record). Many of these recommendations are related to patient education and counseling. It is not clear, however, that all of these exclusions are necessary. For instance, counseling regarding dietary sodium was apparently excluded on these grounds, yet one of the papers cited by the authors<sup>12</sup> describes the extent to which medical records reflected advice to restrict salt intake among Medicare beneficiaries with heart failure (36.6 percent for fee-for-service patients and 49.4 percent for health maintenance organization patients). Physicians might not document certain types of counseling, but it is incorrect to conclude that they cannot provide such documentation.

This observation notwithstanding, James et al accurately observe that current medical records are frequently lacking with regard to documentation of counseling and recommendations. If these interventions are indeed important, the appropriate response should be to improve the medical record rather than to discard the recommendation as being unmeasurable. The development of checklists or other standardized forms incorporating the heart failure guidelines might stimulate physicians both to provide and to document care based on valid recommendations. Such a system, which has long been in place for obstetric care,

represents an approach that will be familiar to many family physicians. The advent of the electronic medical record will provide numerous opportunities to assist physicians in recognizing, adhering to, and documenting recommendations based on good guidelines.

What can the practicing family physician learn from the study by James et al? First, they show that the task of developing criteria to assess adherence to practice guidelines, even those developed using high-quality methods, is fraught with difficulty. Physicians active in health plan, hospital, or office-based quality improvement activities should heed this lesson.

Second, the perfect should not be the enemy of the good. Others have begun to use the AHCPR guidelines as a tool to improve care for patients with heart failure treated by family physicians.<sup>13</sup> These investigators measured some aspects of care that the authors of the present study considered not amenable to medical record review. When used to stimulate quality improvement activities, rather than to grade physician performance or make decisions regarding reimbursement, medical review criteria need not be perfect.

Third, findings in several of the studies cited above suggest that family physicians have an opportunity to improve outcomes among patients with heart failure by increasing the use of ACE inhibitors. James et al convincingly argue that measurement of this evidence-based aspect of care is feasible using medical records as maintained in everyday practice. Even family physicians who are not enamored of guidelines and performance measurement might examine this aspect of their own care for patients with heart failure. No payer, third party auditor, or research institution needs to know, but patient outcomes just might improve.

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## References

1. Berg AO. Clinical practice guideline panels: personal experience. *J Am Board Fam Pract* 1996; 9:366-70.
2. Worrall G, Chaulk P. Hope or experience? Clinical practice guidelines in family practice. *J Fam Pract* 1996;42:353-6.
3. Berg AO. Clinical practice policies: believe only some of what you read. *Fam Pract Manage* April 1996;58-70.
4. Heath I. Commentary: the perils of checklist medicine. *BMJ* 1995;311:373.
5. James PA, Cowan T, Graham RP, Majeroni BA, Fox CH, Jaén CR. Using a clinical practice guideline to measure physician practice: translating a guideline for the management of heart failure. *J Am Board Fam Pract* 1997;10:206-12.
6. Hadorn DC, Baker D. Development of the AHCPR-sponsored heart failure guideline: methodologic and procedural issues. *Jt Comm J Qual Improv* 1994; 20:539-47.
7. Hadorn DC, Baker DW, Kamberg CJ, Brook RH. Phase II of the AHCPR-sponsored heart failure guideline: translating practice recommendations into review criteria. *Jt Comm J Qual Improv* 1996; 22:265-76.
8. Edep ME, Shah NB, Tateo I, Massie BM. Differences in practice patterns in managing of heart failure between cardiologists, family practitioners, and internists. *J Am Coll Cardiol* 1996;27(Suppl A): 376A.
9. Gordian ME. The evaluation and treatment of congestive heart failure in Alaska. *Alaska Med* 1996; 38:101-8.
10. Field MJ, Lohr KN, editors. Institute of Medicine Committee on Clinical Practice Guidelines. Guidelines for clinical practice: from development to use. Washington DC: National Academy Press, 1992.
11. Baker R, Fraser RC. Development of review criteria: linking guidelines and assessment of quality. *BMJ* 1995;311:370-3.
12. Retchin SM, Brown B. Elderly patients with congestive heart failure under prepaid care. *Am J Med* 1994;90:236-42.
13. Chodoff P, Bischof RO, Nash DB, Laine C. The AHCPR guidelines on heart failure: comparison of a family medicine and an internal medicine practice with the guidelines and an educational intervention to modify behavior. *Clin Perf Qual Healthcare* 1996;4:179-85.