Hope or Experience? Clinical Practice Guidelines in Family Practice

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It is a triumph, Sir, of hope over experience.
—Samuel Johnson, in reference to a man's intention to remarry.
From *The Life of Dr Johnson,* by James Boswell

Can Dr Johnson's wisely cynical phrase be used to describe the situation of family physicians with regard to clinical practice guidelines (CPGs)? Does our present and past experience with guidelines lead us to be unrealistically optimistic about their use in family practice in the future?

To date, CPGs have largely been developed by medical speciality societies or by governmental agencies. Their applicability to family practice, the appropriate strategies for disseminating them to family physicians, and their effect on patient care outcomes are the subjects of this review.

Clinical Guidelines

What Are They?

We have always had guidelines, only we used to call them textbooks, or the instructions of the chief of our service. The term now refers to systematically developed statements designed to assist in decision-making about appropriate health care for specific clinical conditions.[1,2] A guideline-writing industry exists; the American Medical Association's Office of Quality Assurance has reported that there are more than 1800 sets of guidelines in existence.[3] Recently, the Canadian Medical Association published a directory of clinical practice guidelines; this bilingual directory lists 874 guidelines.[4] In England, the Royal College of General Practitioners is preparing to publish guidelines for the management of common medical conditions.[5] In the Netherlands, more than 45 sets of practice guidelines have been developed by the Centre for Research on Quality in Family Practice.[6]

How Are They Developed, and Are They Getting Better?

Originally, practice guidelines were developed using three principal methods: consensus conferences that were often no more than brief meetings of self-styled experts, peer review, and Delphi techniques. Recently, following the lead of Eddy,[7] more explicit processes of guideline development, based on the systematic evaluation of scientific evidence, have been used. The approach currently favored is to develop guidelines using the principles of evidence-based medical care.[8–10] Attributes of good guidelines have been defined in the United States by the Agency for Health Care Policy and Research and the Institutes of Medicine.[11] At the present time, there are many more guidelines based on expert opinion than on systematic review. Although the process for developing guidelines is probably improving, we should remember that many existing guidelines were developed some time ago and have not been revised.

Are They Applicable to Family Practice?

The research effort in primary care has so far been relatively small, compared with that done in other areas of medicine, and much of what has been done has been of a nonexperimental nature. Therefore, it is questionable whether there is enough evidence from rigorously conducted studies on which to base CPGs for family practice. It is unlikely that CPGs developed in tertiary care settings are applicable to family practice, where patients present

Submitted, revised, February 12, 1996.

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ISSN 0094-3509

with multiple or ill-defined complaints. For the most part, newer evidence-based CPGs have not been around long enough to be properly tested in primary care settings.

It has been recommended that guidelines for family physicians should be modified to make them more relevant to primary care.[12] We should remember that although guidelines are becoming more scientific, ordinary practitioners have had only minimal involvement in their development. Two exceptions are the Netherlands, where the CPG working parties comprise an equal number of academics and family doctors in community practice,[6] and Britain, where CPGs developed by family physicians were proved to be the most successful of several tested.[13] Patients, the population most likely to be affected by guidelines, have been even less involved in the development of clinical guidelines.

How Are They Best Disseminated and Implemented?

Some studies have found that the dissemination and implementation of guidelines can be disappointing: guidelines often reach only part of the target group[14]; even if physicians are informed about what to do, they often do not perform according to their own knowledge and skills[15]; and guidelines published in scientific journals do not reach most care providers.[16] In the Netherlands, an evaluation of diabetes care standards showed that although 84% of family physicians agreed that patients with diabetes should have their feet inspected annually, only 44% said that they were currently working to that standard.[17] A survey of obstetricians in Ontario before and after the release of guidelines recommending decreased use of cesarean sections found that although physicians reported changing their practice as a result of the guidelines, little change in rates actually occurred.[18]

Based on an examination of which CPGs actually work best, Grimshaw and Russell[19] suggested development, dissemination, and implementation strategies that increase the likelihood of CPGs having a beneficial effect. In another comprehensive review article on the implementation of clinical guidelines in general practice, Conroy and Shannon[20] proposed guideline implementation strategies that would have an impact on each of four levels: increasing knowledge, changing attitudes, changing behavior, and changing outcomes. They noted the large amounts of time, sustained effort, and coordination that would be required to affect all these areas, and most importantly, that most CPGs have failed to achieve their potential because effective implementation strategies have not been developed and used. A recent survey of organizations involved in the CPG field further emphasizes this point.[21] Guidelines may predispose physicians to consider changing certain behaviors, but unless there are other incentives, or removal of disincentives, guidelines are unlikely to effect any rapid change at the practice level.[15] Whether efficient implementation strategies can ever be tailored to the real world of busy family practice is unclear.

Do Clinical Guidelines Work?

A review of 59 published evaluations of CPGs found that all but 4 of them produced statistically significant improvements in the *process* of care,[22] but that only 11 of these studies assessed the impact of guideline use on the *outcomes* of care.

Recently, we conducted our own literature search for and critical appraisal of studies on the impact of CPGs on outcomes of primary care practice (details of the methodology are available from the authors). We found 91 published studies, only 11 of which focused on the outcome of care. Of these, only four studies showed that the use of clinical guidelines produced any significant improvement in patient outcomes for conditions that would commonly be treated in primary care. Changes in patient outcome usually were not clinically dramatic, even when shown to be statistically significant. Only one of the four studies, a British study of the care of children with asthma,[13] found improvement in patient symptoms, as opposed to improvements in nonsymptomatic measures, such as weight and blood pressure, in the other studies.[23–25] None of the studies was long enough to measure any impact on mortality.

While we did not find these results impressive, it is important to remember that few outcome-oriented studies have been done so far in this newly developed field. It is ironic that CPGs that are based on evidence-based decision-making are not systematically evaluated for evidence of their own effectiveness.[21,26]

Most studies so far have looked at short-term changes in the process of care, which is not surprising, as the process is much easier to measure than the outcome of care. Studies of long-term outcomes are expensive and difficult, but if they are ever to be done, surely the primary care setting is the best place to carry out these cohort studies.

What Do Family Physicians Think About Clinical Guidelines?

There is very little information available about family physicians' attitudes toward clinical guidelines. In a study of internists, many of the subjects expressed concerns about the possible reduction of clinical freedom in the manage-

ment of patients and the possible use of guidelines in litigation.[27] A survey of primary care physicians in an urban prepaid health plan found that although they were likely to be more accepting of guidelines produced by their own professional organization than those produced by others, only 23% of them reported following existing guidelines.[28] While 73% of Canadian rural family physicians reported reading and using guidelines, they felt that the guidelines were more useful in managing than in diagnosing illness, and they, too, were worried about loss of clinical flexibility and medicolegal implications (Unpublished paper. Worrall G, Chaulk C, Freake D, Kerrivan T. Attitudes of rural family doctors to clinical guidelines).

It is likely that many family physicians feel that guidelines originating in secondary and tertiary care centers may not be relevant to them, since they treat patients with a very different spectrum of complaints. Some also may think that reviews of the evidence from randomized controlled trials, on which guidelines are increasingly being based,[29] ignore the growing evidence from nonexperimental and qualitative research, which is perhaps more important in primary care than in other branches of medicine. Impersonally applying the best protocol to patients is a type of "cookbook medicine" that may be much less effective than personally tailored management, because it fails to take into account individual expertise and the potential of the placebo effect.[30,31]

The biggest problem facing family physicians may be the proliferation of new guidelines. Which of them are most appropriate to family practice? How can we tell whether a CPG has been properly developed? When several different sets of guidelines exist, which is best for our patients?

Proposals have been made regarding uniform structuring of guideline abstracts so that readers can easily obtain key information about each guideline's applicability, importance, and validity.[26] Perhaps what is needed is a "guidelines clearinghouse" that could develop and maintain practice guidelines for common diagnoses and procedures.[20] No such institution exists at present, although initiatives by the NHS Centre for Reviews and Dissemination, the Cochrane Collaboration, and the Agency for Health Care Policy and Research all represent steps in the right direction. The mission of such an institution would be not only to develop guidelines, but also to test them and to report periodically on their application.

The Need for Research on Guidelines in Family Practice

More research is needed to determine areas of concern and barriers to progress in CPG development for family practice, and to learn whether these CPGs can ever realistically be implemented in primary care. We suggest that further guidelines research should concentrate on the following areas: (1) How do guidelines fit into the scientific base of family medicine? (2) Which are the best dissemination and implementation strategies for CPGs to family physicians and what are the specific barriers in family practice? (3) Does the involvement of family physicians in the development of CPGs produce a better product? (4) What are the effects of CPGs on clinical outcomes in family practice?

Our lack of knowledge about the effects of guidelines on clinical care outcomes signals a need for more outcome-oriented research. This research should test the effect of guideline distribution to ordinary family physicians and focus on common and serious conditions that family physicians spend a major portion of their time addressing.

Conclusions

If guidelines are to be effective and useful, they should consist of sensible advice that can prevent unsatisfactory practices, provide better coordination, and serve as a blueprint for simple measures to improve the current state of health care. Guidelines should take into account situations that are unique to family practice, where patients have multiple problems and often present with nonspecific complaints.

Guidelines are explicit yet crude summaries of implicit and subtle skills[32,33] that should be used not to dictate practice but to inform clinical judgment. It is clear that the unique perspective of the family physician is integral to the development of guidelines and the generation of strategies for their dissemination and adoption in clinical practice. Only then will we be able to confound Dr Johnson by translating our current hopes into favorable experiences.

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