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# Attitudes of rural family physicians to clinical practice guidelines: a cross-sectional survey

Graham Worrall, MB,BS, MSc, CCFP, MRCGP
Director, Centre for Rural Health Studies, Newhook Community Health Centre, Whitbourne, Nfld.; and Associate Professor, Family Medicine, Memorial University of Newfoundland, St. John's, Nfld.

Paul Chaulk, MSc
Research and Evaluation Specialist, Department of Health and Social Services, Charlottetown, PEI

Darren Freake, MSc
Research Assistant, Centre for Rural Health Studies, Newhook Community Health Centre, Whitbourne, Nfld.

Theresa Kerrivan
Research Associate, Centre for Rural Health Studies, Newhook Community Health Centre, Whitbourne, Nfld.

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[résumé]

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Correspondence and reprint requests to: Dr. Graham Worrall, Centre for Rural Health Studies, Newhook Community Health Centre, Whitbourne NF A0B 3K0

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Abstract

Objective and method: To assess the attitudes of rural family physicians in Newfoundland toward the use of clinical practice guidelines (CPGs) by means of a cross-sectional survey sent by mail to all of Newfoundland's family physicians working in communities with a population of less than 30 000.

Results: According to data available through medical organizations, the family physicians providing primary care in rural Newfoundland are predominantly young men; just over half of them are graduates of Canadian medical schools, and only 26.9% are members of the College of Family Physicians of Canada. Of the 232 family physicians to whom the survey was sent, 137 (59.1%) returned a completed questionnaire.

Positive attitudes: Among the respondents, 95.6% felt that family physicians should be involved in the development of guidelines, 72.6% had read at least one guideline, 65.9% were prepared to use guidelines in their own practice, 61.6% thought that guidelines would improve their treatment ability, and 59.7% thought that guidelines would improve their knowledge of disease.

Negative attitudes: A large number of respondents (76.5%) felt that government should not legislate guidelines, 75.7% were worried about the medicolegal implications of guideline implementation, 66.2% felt that guidelines reduce physicians' flexibility, and 57.9% felt that guidelines would not improve their diagnostic ability.

Conclusions: The respondents were, in general, favourably disposed toward CPGs; most had already read some guidelines, and about two-thirds were prepared to use them. Almost all respondents felt that family physicians should be involved in the development of guidelines for use in family practice. These family physicians felt that guidelines were more likely to help them treat patients than to make a diagnosis. Despite these favourable attitudes, physicians were worried about the medicolegal implications of the introduction of guidelines, and many of them felt that guidelines would limit their personal flexibility in caring for patients. Organizations developing or implementing CPGs in family practice should address these concerns.


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Résumé

Objectif et méthode : Évaluer les attitudes des médecins de famille ruraux de Terre-Neuve à l'égard de l'utilisation des guides de pratique clinique (GPC) au moyen d'un questionnaire postal transversal envoyé à tous les médecins de famille de Terre-Neuve qui travaillent dans des

communautés de moins de 30 000 personnes.

Résultats : Selon des données disponibles auprès des organisations médicaux, les médecins de famille qui fournissent des soins primaires en milieu rural à Terre-Neuve sont avant tout de jeunes hommes. Un peu plus de la moitié d'entre eux sont diplômés de facultés de médecine du Canada et 26,9 % seulement sont membres du Collège des médecins de famille du Canada. Sur les 232 médecins de famille auxquels on a envoyé le questionnaire, 137 (59,1 %) l'ont renvoyé rempli.

Attitudes positives : Parmi les répondants, 95,6 % étaient d'avis que les médecins de famille devraient participer à l'élaboration des guides, 72,6 % avaient lu au moins un guide, 65,9 % étaient disposés à utiliser des guides dans leur propre pratique, 61,6 % étaient d'avis que les guides amélioreraient leur capacité de traitement et 59,7 % pensaient que les guides amélioreraient leur connaissance des maladies.

Attitudes négatives : Beaucoup de répondants (76,5 %) étaient d'avis que le gouvernement ne devrait pas légiférer sur les guides, 75,7 % étaient préoccupés par les répercussions judiciaires de la mise en œuvre de guides, 66,2 % étaient d'avis que les guides réduisent la flexibilité dont disposent les médecins et 57,9 % pensaient que les guides n'amélioreraient pas leur capacité de diagnostic.

Conclusions : Les répondants étaient en général bien disposés en ce qui concerne les guides. La plupart avaient déjà lu des guides et les deux tiers environ étaient prêts à les utiliser. Presque tous les répondants étaient d'avis que les médecins de famille devraient participer à l'élaboration de guides qui serviront en médecine familiale. Ces médecins de famille étaient d'avis que les guides avaient plus de chances de les aider à traiter des patients qu'à poser un diagnostic. En dépit de ces attitudes favorables, les médecins étaient préoccupés par les répercussions judiciaires de la mise en œuvre de guides et beaucoup d'entre eux étaient d'avis que les guides limiteraient la flexibilité dont ils disposaient personnellement pour traiter leurs patients. Les organisations qui élaborent ou mettent en œuvre des GPC en pratique familiale devraient tenir compte de ces préoccupations.

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## Introduction

Clinical practice guidelines (CPGs) are statements, systematically developed, that assist the physician in making decisions about appropriate health care for specific clinical conditions or situations.[1] Over the past decade, thousands of guidelines have been developed.[2-5] Much of the impetus for their appearance has come from studies that show how the behaviour of physicians varies enormously, even within small areas of the same country.[6,7] More recently, there has been an emphasis on the introduction of guidelines as a method of controlling health

care costs,[8] enhancing the standards of medical care by improving outcomes[9] and reducing the risk of litigation.[10]

Originally, CPGs were developed using peer review and consensus conferences. Recently, more explicit processes, based upon the systematic evaluation of scientific evidence, have led to an explosion of CPGs.[11,12] Desirable attributes for good guidelines have been developed,[13] and there are also guidelines for reviewing guidelines.[14,15]

Despite the tremendous enthusiasm and the great expenditure of time, effort and money to develop guidelines, there are doubts about their effectiveness in medical practice. Several comprehensive reviewsp16]-[18] have revealed that most CPGs have been developed for use in the hospital setting, and that of the minority developed for use in the community, most are concerned with preventive care. Furthermore, most evaluations of CPGs look at the process of care (Did the physicians do what the guidelines suggested?), rather than the outcome of care (Did the patients actually feel better as a result?). A review of the relevance of most CPGs to common conditions treated in primary care[19] found that of 91 studies of guidelines for care in the community, only 4 satisfied the criteria of being done in a clinical care setting, of being applicable to conditions normally treated by family physicians, of being conducted in a methodologically sound manner and that the use of the CPG resulted in significantly improved patient outcomes. A further concern is that physicians tend not to comply with guidelines, even if they agree that such guidelines are needed.[20]

Most of the effort to date has concentrated on guideline development, and there is uncertainty about how to disseminate CPGs and implement them in medical practice. It is not enough merely to mail copies of guidelines to physicians; it seems necessary to use predisposing, enabling and reinforcing strategies to make sure that physicians actually use guidelines.[21,22] Many CPGs have been developed and tested in a tertiary care setting, but there has been little effort to do the same in primary care settings. It is conceivable that CPGs might be of more use to family physicians in rural practice, because they tend to have less opportunity for continuing medical education and less access to specialist colleagues than do their urban counterparts.

There is a dearth of information on the attitudes of family physicians toward CPGs, and many questions remain unanswered: What are the greatest concerns about CPGs among family physicians? What barriers exist to the effective use of CPGs in family practice? What factors should organizations consider when developing, disseminating or implementing CPGs in the family practice setting?

The main objective of this study was to assess the attitudes of rural family physicians toward CPGs. More specifically, we wanted to explore the physicians' knowledge of and familiarity with guidelines, their prior use of CPGs, their satisfaction with and confidence in CPGs, their worries about CPGs and the barriers to the use of CPGs in family practice; in addition, we wanted to determine whether family physicians felt that they should be involved in the development of

CPGs. This study should add to the rather small base of knowledge about the use of CPGs in family practice.

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## Methods

A two-page, self-administered questionnaire* (which was tested with a group of physicians at the Newhook Community Health Centre in Whitbourne, Nfld.) was mailed to all 235 family physicians working, in late 1994, in Newfoundland communities with populations of less than 30 000. The physicians were among those identified on a list provided by the Newfoundland and Labrador Medical Association as being in full-time family medical practice; this list was updated by a secretary, who phoned all practices for a recent list of family physicians. The questionnaire was accompanied by a covering letter assuring confidentiality (indeed, the survey was anonymous) and a stamped return envelope. A second questionnaire was sent to physicians who did not respond to the first mailing within 3 weeks. No further follow-up was done.

After the questionnaires had been returned, demographic information about physicians in the sample group was obtained from the Newfoundland and Labrador Medical Association (unpublished data), the Newfoundland Medical Board register[23] and the Canadian Medical Directory.[24] This information included sex, type of practice (single or group), year of graduation, country of training (as Canadian or foreign), membership status in the College of Family Physicians of Canada and type of payment (salary, fee-for-service or other).

The questionnaire contained 12 closed-ended and 3 open-ended questions. The closed-ended questions requested a response of "yes," "no" or "unsure," or a response on a five-point Likert scale. To minimize response bias, the scale on three of these questions was reversed. Closed-ended questions requested information about use of CPGs, attitudes toward government legislation of CPGs, physician involvement with CPG development, the influence of CPGs on physicians' knowledge of and ability to diagnose and treat disease, the effect of CPGs on the autonomy and flexibility of physicians in dealing with patients, and concerns relating to legal and malpractice issues. The open-ended questions asked the physicians to list the advantages and disadvantages of guidelines and to give any other comments.

The data were analyzed with the Quattro Pro spreadsheet package[25] and SPSS-X for Vax.[26] Descriptive statistics were compiled for the answers to the questions and the demographic characteristics of the physicians. Chi-square analyses were used for proportions, and Spearman's rho coefficient was used as a measure of association (concordance) for ordinal variables. An alpha value of 0.05 was specified for all statistical tests.

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## Results

Of the 235 surveys mailed, 3 were returned because the physicians were no longer in practice at the addresses to which the surveys had been sent. Of the remaining 232 physicians, 137 (59.1%) returned a completed questionnaire; of these, 104 (75.9%) replied to the first mailing and 33 (24.1%) to the second mailing.

Demographic information was obtained for 221 of the 235 physicians to whom surveys were mailed. One hundred and seventy-nine (81.0%) of the physicians were men, and just over half (126 [57.0%]) were graduates of Canadian medical schools. Almost half (102 [46.2%]) had graduated in 1990 or later, and an additional 73 (33%) had graduated in the 1980s. Only 59 (26.7%) were members of the College of Family Physicians of Canada. More than a third (81 [36.7%]) were paid by salary rather than fee-for-service.

About a quarter of respondents had never read a CPG or were unsure about using guidelines in their practice (Table 1). Less than half of those who had read a CPG thought that it had affected their practice. There was almost unanimous support for the idea of family physician involvement in the development of CPGs but not for government legislation of them.

A majority of respondents thought that CPGs would be likely to improve physicians' knowledge of and ability to treat disease, whereas more than half felt that the use of CPGs would not improve the ability to diagnose disease (Table 2). The number of respondents who thought that guidelines would improve treatment was significantly greater than the number who thought that guidelines would improve diagnosis ($\chi^2 = 10.10$, $p < 0.002$).

A majority of the respondents felt that CPGs would reduce flexibility in dealing with patients and indicated that they were also concerned about legal and malpractice issues (Table 3). However, there was a fairly even split on the questions of whether CPGs would hamper family physicians' individual skills and experience and whether guidelines accurately reflect optimal diagnosis and treatment (Table 3).

In the replies to the open-ended questions, the most frequently listed advantages of CPGs were that they would standardize the approach to clinical conditions (39 respondents), they represent an easy reference for diagnosis and treatment (22), and they provide up-to-date learning for physicians (17). The most frequently listed disadvantages were that CPGs reduce flexibility or force stepwise treatment (33 respondents), they reduce autonomy and impair the art of clinical medicine (19), and they artificially categorize patients (16).

Some questions on the survey tended to be answered in a similar fashion; that is, in some cases, responses on the Likert scales were significantly concordant from one question to another. For example, responses to the statement that the use of CPGs reduces flexibility were concordant

with those for the statement that CPGs do not permit physicians to fully use their individual skills (Spearman's rho = 0.66, $p < 0.001$). The responses that were significantly concordant are presented in Table 4.

In addition, some questions seemed to be answered in a significantly dissimilar fashion: responses to some statements were in significant disagreement with responses to other statements. Pairs of statements with responses that were in significant disagreement are presented in Table 5.

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## Discussion

We found that, in general, rural Newfoundland family physicians had favourable attitudes toward CPGs. Most had already read some guidelines, were prepared to use them and felt that such guidelines would improve doctors' knowledge of disease and ability to treat. An overwhelming majority felt that family physicians should be involved in developing CPGs to be used in primary care.

Relatively little is known about physicians' attitudes to CPGs. We found only three published reports of mail surveys, one involving responses from 1513 US internists[27] and two involving primary care doctors, one in the United States (with 52 respondents)[28] and one in the United Kingdom (with 213 respondents).[29] Each of these surveys, as well as our own, had a response rate of about two-thirds, which is typical for a mail survey. Only 23% of US urban physicians reported using guidelines; they were more confident in guidelines produced by their own professional bodies and younger physicians were much more favourably disposed to guidelines than were older physicians.[28] British general practitioners were generally in favour of guidelines, 78% of such physicians having been involved in writing in-house guidelines, and 69% felt that they were effective in improving patient care.[29] But even in the United Kingdom, more than a quarter of physicians were concerned that guidelines would result in "cookbook" medicine, would stifle innovation and might be used to set performance-related pay.[29]

We found that attitudes to CPGs in rural Newfoundland were closer to those in the United Kingdom than to those in the United States. It is possible that this difference relates to the timing of the surveys. The US survey[28] was published in 1991, and there has been much activity in the guidelines field since then. Attitudes among US physicians may have changed in the interim and may now be more in line with our survey and the 1995 British survey.[29] At present, Canadian family physicians seem ready for CPGs tailored to their practice or for studies about the best way to implement CPGs in primary care.

Despite the predominantly positive attitudes toward guidelines that we found, there were some

consistent reservations. There was less confidence that CPGs would improve diagnostic ability than that they would improve treatment, and many respondents felt a threat to their professional flexibility and application of individual skills to the care of patients. There were also substantial minorities -- on the order of 40% -- who felt that their knowledge of disease and their treatment skills would not be improved by the use of guidelines and that, consequently, guidelines would not affect their practice.

Our correlational analyses revealed that respondents' attitudes were fairly consistent from one question to another. There were two camps: a slightly larger group that favoured CPGs and a smaller group that was against guidelines.

In concordance with the guidelines literature, which states that physicians are more likely to comply with guidelines if they have been involved in their development,[16,30-32] the rural physicians who replied positively to statements about CPGs in our survey were also strongly in favour of becoming involved in developing CPGs.

One of the current debates about CPGs is whether the general public should be involved in their development. To date, not enough research has been done to definitively answer this question. A recent survey of organizations active in the CPG field in Canada[33] indicated that provincial medical associations and medical specialty societies should be involved in the development of CPGs, but not patients.

There were several limitations to our study. The survey was cross-sectional, and only 60% of physicians responded. Although our covering letter to physicians defined CPGs as consensus statements, which suggest what physicians should do, we have no way of being certain that all respondents understood the concept in the same way. Because the survey was completely anonymous, rather than confidential, we had no way of obtaining information from the nonrespondents to compare with information received from the respondents.

In summary, our survey found that rural family physicians in Newfoundland are, in general, fairly favourably disposed toward CPGs. The consensus was that family physicians should be working to produce guidelines for their own use and that family physicians may have doubts about the accuracy of diagnosis and treatment with respect to CPGs. These findings may indicate a problem related to using specialist-developed CPGs in primary care. Most physicians are familiar with CPGs and have used them. There is, however, a degree of scepticism about whether the introduction of guidelines will actually improve patient care: many felt that their ability to respond creatively to the individual patient may be somewhat hampered by guidelines.

The results of this survey illustrate several important points for individuals planning the development or implementation of CPGs for family physicians. Those who want family physicians to test or use CPGs must address the legal concerns of physicians. They must also address the perception that CPGs reduce physicians' flexibility by emphasizing that, as their

name implies, CPGs are guidelines only. In the present climate of opinion among family physicians in Newfoundland it seems likely that CPGs that concentrate on treatment, rather than diagnosis, are more likely to succeed. Finally, we must remember that the effectiveness of CPGs developed in tertiary care settings or based largely on research conducted in such settings should be examined carefully before and after their dissemination to the family practice setting.

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