Clinical practice guidelines

New-to-practice family physicians' attitudes

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OBJECTIVE To examine the attitudes toward clinical practice guidelines of a group of family physicians who had recently entered practice in Ontario, and to compare them with the attitudes of a group of internists from the United States.

DESIGN Mailed questionnaire survey of all members of a defined cohort.

SETTING Ontario family practices.

PARTICIPANTS Certificants of the College of Family Physicians of Canada who received certification in 1989, 1990, and 1991 and who were practising in Ontario. Of 564 cohort members, 395 (70%) responded. Men (184) and women (211) responded at the same rate.

MAIN OUTCOME MEASURES Levels of agreement with 10 descriptive statements about practice guidelines and analyses of variance of these responses for several physician characteristics.

RESULTS Of respondents in independent practice, 80% were in group practice. Women were more likely to have chosen group practice, in which they were more likely to use practice guidelines than men. Generally favourable attitudes toward guidelines were observed. Physician characteristics occasionally influenced agreement with the descriptors. The pattern of agreement was similar to that noted in the study of American internists, but, in general, Ontario physicians were more supportive.

CONCLUSIONS This group of relatively new-to-practice Ontario family physicians shows little resistance to guidelines and appears to read less threat of external control in them than does the US group.

OBJECTIF Examiner les attitudes d'un groupe de médecins de famille ayant récemment débuté leur pratique en Ontario face aux lignes directrices de pratique clinique comparativement à celles d'un groupe d'internistes aux États-Unis.

CONCEPTION Enquête par questionnaire postal auprès de tous les membres d'une cohorte prédéfinie.

CONTEXTE Pratiques familiales de l'Ontario.

PARTICIPANTS Certifiés du Collège des médecins de famille du Canada qui ont obtenu leur certification en 1989, 1990 et 1991 et exerçaient en Ontario. Des 564 membres qui formaient la cohorte, 395 (70%) ont répondu. Le taux de réponse fut identique chez les femmes (211 répondantes) et chez les hommes (184 répondants).

PRINCIPALES MESURES DES RÉSULTATS Degré d'accord avec 10 énoncés descriptifs entourant les guides de pratique. Analyse de variance de ces réponses en fonction de plusieurs caractéristiques des médecins.

RÉSULTATS Chez les répondants exerçant de façon indépendante, 80% exerçaient en groupe. Les femmes étaient plus susceptibles d'avoir choisi la pratique de groupe dans laquelle elle étaient plus susceptibles d'utiliser les guides de pratique que les hommes. De façon générale, on a observé des attitudes favorables envers les lignes directrices. Les caractéristiques individuelles des médecins ont occasionnellement influencé le degré d'accord avec les éléments décrits. Le type d'accord s'est avéré semblable à celui observé dans l'étude menée auprès des internistes américains mais, de façon générale, l'appui des médecins ontariens était plus marqué.

CONCLUSIONS Ce groupe de médecins de famille ontariens récemment installés en pratique montre peu de résistance aux lignes directrices et semblent y voir moins de menaces d'un contrôle extérieur comparativement au groupe américain.

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PUBLICATION OF A REPORT ON the periodic health examination in 1979[1] focused attention in Canada on what are now commonly referred to as practice guidelines. These guidelines, based on review of scientific evidence, present consensus statements about the appropriate use of specific health care procedures.

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Since 1979, interest has increased in the development, dissemination, application, and effect of such guidelines, which are now defined as systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific health care purposes.[2]

The Canadian Medical Association's (CMA) recent decision to publish a series of articles on guidelines for guidelines reflects the importance of their use in this country. This series is part of a collaborative project of the National Partnership for Quality in Health, created by the CMA's Quality of Care Committee, to address all aspects of practice guidelines as contributors to the maintenance of health and to the quality of health care.[3]

In the first article in the series, Battista,[4] in acknowledging that much of the work on guidelines in the last decade has been done in the United States, has suggested that views on and use of guidelines are greatly influenced by the environmental ethos of health care delivery in a country. He has identified some differences between the US and Canada. For example, the single-payer model in use in Canada allows for relatively efficient implementation of large-scale policy decisions that is not achievable in the US. Also, the view of health care as a commodity in some parts of the US system, as a consequence of the profit-based motives of some institutions and of insurers, is, for the most part, absent in Canada.

But the various roles of guidelines do not differ greatly in the two countries. Those published in the US that address cost control, quality assurance, access to care, patient empowerment, professional autonomy and liability, and management issues[5] generally apply in Canada.

Some authors express considerable disappointment that guidelines have had so little effect so far. Lomas[6] and Grilli and Lomas[7] have described problems associated with their production, dissemination, and use. Tunis et al[8,9] have pointed out that little is known about physicians' attitudes to guidelines. Suspicion as to motives for encouraging their use or as to their credibility could cause practitioners and their patients to resist them.

We had an opportunity to assess the attitudes of some Ontario primary care physicians toward practice guidelines when a survey of the development of their practices was planned. This survey, sent to a cohort of family physicians who had recently entered practice, included a small section in which they were asked to give their views on a series of descriptive statements about guidelines.

METHOD

We mailed the survey in September 1993 to a cohort of family physicians living in Ontario who had received certification from the College of Family Physicians of Canada in 1989, 1990, or 1991. After a follow-up thank you or reminder card, and two repeat mailings of the questionnaire, data collection was concluded in January 1994.

The survey asked questions about physicians' career development, practice organization, practice activities, and attitudes toward issues related to patient care and the politics of health care delivery. The component on attitudes to practice guidelines used 10 descriptors and methods of analysis adopted from the work of Tunis et al.[9] These were:

- calculating percentage agreement based on numbers of respondents using the two highest ratings on the 1 (strongly disagree) to 5 (strongly agree) scale;
- performing analyses of variance (ANOVAs) on the responses to each descriptor for several dichotomous physician variables; and
- calculating an overall score using an attitude scale. This scale is the sum of the ratings for each of four descriptors that reflect positive views of guidelines (good educational tools, unbiased syntheses of expert opinion, a convenient source of advice, motivated by a desire to improve quality of care) and of the inverted scale ratings for each of four descriptors of negative views (oversimplified or "cookbook" medicine, a challenge to physician autonomy, too rigid to apply to individual patients, motivated by a desire to cut costs).

The internal consistency coefficient (Cronbach's α) as used by Tunis et al[9] was 0.76; in our study it was 0.69. To ensure consistent understanding of the meaning of the term

Table 1. **Attitudes toward practice guidelines of family physicians who have recently entered practice in Ontario**

DESCRIPTOR	% DISAGREEING (RATING 1,2)	% NONCOMMITTAL (RATING 3)	% AGREEING (RATING 4,5)	% AGREEING IN US STUDY[9]
Good educational tools	4	27	69	64
Oversimplified or "cookbook" medicine	46	36	17	25
Unbiased syntheses of expert opinion	18	49	33	34
Challenge physician autonomy	55	35	10	21
Convenient source of advice	2	19	79	67
Too rigid to apply to individual patients	44	34	22	24
Motivated by desire to improve quality of care	5	19	76	70
Motivated by desire to cut costs	10	27	63	61
Likely to be used for quality assurance review	4	37	58	81
Likely to be used in disciplinary actions	21	32	47	68

Scale: 1 = strongly disagree to 5 = strongly agree.

practice guidelines, the item in our questionnaire qualified the phrase by adding "(eg, regarding cholesterol testing, the periodic health examination, thyroid testing)." The significance level was set at $P = 0.01$; a result with $0.05 \geq P > 0.01$ was considered interesting.

Excluded from the analysis of attitudes to guidelines were responses from physicians acting as locum tenens, in another residency program, in emergency medicine, or in institutional settings, such as day hospitals.

RESULTS

Response rate

We received completed questionnaires from 395 (70%) of the 564 physicians who met the eligibility criteria. Physicians' sex, location (urban or rural), or medical school of graduation did not affect the response rate, but an unexplained difference appeared in the rate of response by year of certification (1990 lower; $\chi^2_2 = 8.47$; $P = 0.009$).

Characteristics of the cohort

Nearly all (95%) of the cohort had graduated from Canadian medical schools. After excluding physicians who were locum tenens, residents, in emergency medicine, or primarily involved in institutional settings, there were 329 physicians: 65 in solo practice and 264 in group practice, 180 women and 149 men. Women were somewhat more likely to report being in group practice (84.4%) than men (75.2%); ($\chi^2_1 = 4.42$; $P = 0.03$), and of those in group practice, women were more likely to be using practice guidelines (66.4%) than men (49.5%); ($\chi^2_1 = 7.09$; $P = 0.007$).

Attitudes of the cohort

Table 1[9] shows responses to each of the 10 descriptors. Three unambiguously positive statements (good educational tools, a convenient source of advice, motivated by a desire to improve quality of care) elicited agreement from more than two thirds of the respondents. Three beliefs likely to be perceived as negative (oversimplified or cookbook medicine, a challenge to physician autonomy, too rigid to apply to individual patients) were shared by fewer than one quarter of the respondents. The remaining items are more difficult to characterize as positive or negative. The level of agreement with these varied considerably but was in all cases in between clear positives and negatives.

Table 2. **Bivariate association between practice guideline descriptors and physician characteristics**

DESCRIPTOR	PHYSICIAN CHARACTERISTICS				
	FEMALE	SOLO PRACTICE	GROUP PRACTICE USING GUIDELINES	HIGH FEE-FOR-SERVICE*	LOW BOOKED HOURS WEEKLY†
Good educational tools					
Oversimplified or "cookbook" medicine					
Unbiased syntheses of expert opinion				Less‡	
Challenge physician autonomy				More§	
Convenient source of advice				(Less‖)	
Too rigid to apply to individual patients				(More‖)	(More‖)
Motivated by desire to improve quality of care	Less‡		More‡	Less§ (Less‖)	
Motivated by desire to cut costs	More§		Less‡	Less‡ (More‖)	
Likely to be used for quality assurance review					
Likely to be used in disciplinary actions	Less‡		Less‡		

Less – *less agreement with descriptor,* more – *more agreement with descriptor.*

* *Physicians who receive at least 95% of their income from fee-for-service.*

† *Physicians who book fewer than 20 hours of appointments with patients weekly.*

‡ *"Interesting" difference (0.05 ≥ P > 0.01).*

§ *P ≤ 0.01.*

(‖) *Indicates a difference found by Tunis et al[9] in an approximately comparable group.*

The low level of agreement with the positive descriptor "unbiased syntheses of expert opinion" is notable. The number of people whose rating was noncommittal on the 5-point scale was substantial in all cases, and approached 50% in this case.

Table 2 shows results of one-way ANOVA of responses by physician characteristics. Ten differences were interesting, but only three reached significance. Two of these were for the "high fee-for-service" variable (physicians who got at least 95% of their professional income as fees). These physicians were more likely to agree that guidelines are a challenge to physician autonomy and less likely to agree that guidelines are motivated by a desire to improve quality of care. Women were somewhat less likely than men to agree that guidelines were motivated by a desire to improve quality of care and significantly more likely to agree that they were motivated by a desire to cut costs. Women were also somewhat less inclined to agree that guidelines were likely to be used in disciplinary actions.

A summary of attitudinal scores was calculated using the scale of Tunis et al.[9] Analyses of variance of this score with physician characteristics

resulted in only one significant finding: the high fee-for-service group had lower scores, indicating less support for guidelines.

DISCUSSION

This study showed support for practice guidelines among family physicians who have recently entered practice in Ontario. They appear to be even more supportive than the group of internists studied in the US[9] (*Table 1*). The authors of that study noted the apparent contradiction between the physicians' favourable view and the much more critical tone that seemed to prevail in medical publications. They discuss ways in which their subjects might not be representative of all US physicians. Comparison with the results of our study must be done cautiously. The Ontario group had all entered practice recently and was probably more like a subgroup in the US study – associate members of the American College of Physicians, who are likely to be younger and who were more supportive than other internists of guidelines – than like the cohort as a whole. Further, all of the Ontario group were in primary care practice; the US group included non-primary care physicians.

In our study, 95% of the physicians had graduated from Canadian medical schools. These schools admit few non-Canadians. We have, therefore, been studying a group of physicians, most of whom not only received their medical education in Canada but also grew up in this country. As a result, they have been socialized in a system where large-scale health policy direction is the norm. This could make them more favourably inclined toward efforts from outside their practices to assure consistent quality of care, and therefore more accepting of tools developed to this end.

Large differences were found between US and Canadian levels of agreement with descriptors of guidelines that could be read to contain threats of external control (likely to be used for quality assurance review, likely to be used in disciplinary actions). Canadians are either less likely to read threats in these statements or less likely to respond negatively to them.

One of the descriptors included in the scale of Tunis et al[9] as reflecting a positive attitude that received a fairly low level of agreement in both studies is "an unbiased syntheses of expert opinion." The fact that almost half the Ontario respondents were noncommittal on the rating indicates not so much a lack of confidence as a withholding of opinion, possibly based on lack of knowledge. The US internists' confidence in guidelines was shown to vary greatly with their source. Both groups' responses could, therefore, reflect lack of definition in the question.

Although women family physicians in group practice were more likely to use practice guidelines than men, we were unable to detect an attitudinal difference that would reasonably explain this finding.

Only 10% of the Ontario physicians saw guidelines as a challenge to physician autonomy, compared with 21% of the US physicians. This decreased likelihood of perceiving guidelines as interfering with professional autonomy could reflect the fact that Canadian organized medicine has taken the leadership in guideline development in several important areas[10,11] and has also developed guidelines for guideline development.

While Ontario physicians had favourable attitudes overall toward guidelines, many were negative or neutral in their responses. Also, the degree of support varied greatly with the guideline descriptor. Initiatives to improve quality of care by using guidelines will probably succeed better if items that get high endorsement (use as educational tools and as convenient sources of advice) are emphasized; in other words, that they are written as normative rather than prescriptive. The strong agreement that the motivation for guideline development is to improve quality of care can be capitalized on if physicians have great confidence in the source of the guidelines. One way to ensure this confidence is to involve practising physicians extensively in the process of developing new practice guidelines. ■

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