

Urinary incontinence in Canada

National survey of family physicians' knowledge, attitudes, and practices

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ABSTRACT

OBJECTIVE To determine current knowledge, attitudes, and management of urinary incontinence among family physicians in Canada.

DESIGN Cross-sectional mailed survey.

SETTING Family physicians in Canada.

PARTICIPANTS A random sample of 1500 members of the College of Family Physicians of Canada.

MAIN OUTCOME MEASURES Self-assessed knowledge, self-reported attitudes, and rating of various tests and treatments in the investigation and management of incontinence.

RESULTS The overall unadjusted response rate was 43.3% (650/1500). Although most respondents reported that urinary incontinence was common in their practices, less than half (46.0%, 284/617) indicated that they clearly understood incontinence and just 37.9% (232/612) had an organized plan for incontinence problems. Only 35.0% (214/612) of respondents felt very comfortable dealing with incontinence. Physical examination, urodynamic studies, urinalysis, and testing blood sugar levels were all considered important investigations by more than 90% of respondents.

CONCLUSION There are wide variations in knowledge, attitudes, practices, and comfort level among family physicians dealing with urinary incontinence.

RÉSUMÉ

OBJECTIF Déterminer les connaissances, les attitudes et la prise en charge actuelles de l'énurésie par les médecins de famille au Canada.

CONCEPTION Une enquête transversale par questionnaire postal.

CONTEXTE Les médecins de famille au Canada

PARTICIPANTS Un échantillon aléatoire de 1500 membres du Collège des médecins de famille du Canada.

PRINCIPALES MESURES DES RÉSULTATS Les connaissances et les attitudes telles qu'évaluées par les répondants et des cotes accordées à divers tests et traitements dans l'investigation et la prise en charge de l'énurésie.

RÉSULTATS Le taux de réponse global non ajusté se situait à 43,3% (650/1500). Même si la plupart des répondants ont signalé que l'incontinence urinaire était fréquente chez leurs patients, moins de la moitié (46,0%, 284/617) ont indiqué bien comprendre l'énurésie et seulement 37,9% (232/612) avaient des plans thérapeutiques structurés pour les problèmes d'énurésie. Seulement 35,0% (214/612) des répondants se sentaient très à l'aise d'aborder l'incontinence urinaire. L'examen physique, la mesure de la dynamique urinaire, les analyses d'urine et les épreuves de la glycémie étaient tous considérés d'importantes techniques d'investigation par plus de 90% des répondants.

CONCLUSION Il existait de fortes variations dans les connaissances, les attitudes, les pratiques et le degré d'aise au sein des médecins de famille quant à la prise en charge de l'énurésie.

This article has been peer reviewed.

Cet article a fait l'objet d'une évaluation externe.

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Urinary incontinence (UI) is an important health problem that affects 1.5 million Canadians and many millions of people in all age groups worldwide.^{1,2} Urinary incontinence is related to lower health status, lower self-esteem, and greater health and social needs.³ It is a demoralizing and costly problem with widespread human, social, and financial implications.⁴

Prevalence surveys have found that up to 9% of community populations suffer from UI on a regular basis.^{5,6} Mohide and coworkers⁷ surveyed community clients receiving home care services in southern Ontario and found that 20% were incontinent of urine. The rate of UI in acute care hospitals has been estimated at 25%;⁸ this rate increases to 50% to 70% in long-term care facilities.⁹

Many health care professionals consider incontinence a normal part of the aging process with which individuals must learn to live. In approximately 70% of patients, however, UI can be either resolved or improved.¹⁰ Urinary incontinence is often not addressed because of lack of awareness on the part of health care professionals, care providers, and clients.

Eriksen and colleagues¹¹ found that more than 50% of cases of incontinence were inadequately managed. Even when a problem had been identified, treatment was not discussed in almost half of the cases. Surveys of primary care physicians in the United States,¹² The Netherlands,¹³ Ireland,¹⁴ and New Zealand¹⁵ have identified deficiencies in the knowledge required to evaluate and treat UI. A survey of family physicians in Oklahoma found that they were unlikely to ask about incontinence.¹² In New Zealand, only 15% of general practitioners were totally confident in diagnosing and managing stress incontinence.¹⁵ In a survey of Canadian urologists, gynecologists, physiotherapists, occupational therapists, social workers, and visiting nurses, Boblin-Cummings et al¹⁶ found varying levels of skills and willingness to participate in the care of patients with UI.

Published studies have not yet addressed these questions to family physicians in the Canadian context. The purpose of our survey of Canadian family physicians

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was to determine their current knowledge, attitudes, and management of UI as a preliminary step in designing educational curriculums for family physicians.

METHODS

Between June and September 1999, questionnaires were mailed across Canada to a random sample of members of the College of Family Physicians of Canada, generated from the membership list. Two mailings were sent to a total of 1500 members. Because of a low initial response rate, telephone calls to a sample of 110 nonresponders from across Canada were made by the principal author (J.G.S.) followed by faxing a questionnaire to those who agreed to reply.

Survey instrument

The questionnaire was developed using new and previously tested questions from the study by McFall and colleagues¹² and modified for Canadian family physicians based on a Canadian survey of UI specialists.¹⁶ The self-administered questionnaire was pilot-tested on a convenience sample of 30 practising family physicians and then further refined. There were five sections to the questionnaire. The first section dealt with respondents' general understanding of incontinence issues. In the second section, respondents were asked to rate the importance of selected tests in the investigation of incontinence. The third section asked respondents to rate how frequently they used various treatments. The fourth section examined continuing education preferences in general. The last section asked about educational opportunities specifically related to UI and about demographic and practice characteristics.

All responses in sections 1 to 4 were assessed on 5-point Likert-type scales. To encourage busy physicians not to reject the questionnaire outright, and thus to increase the response rate, the questionnaire was limited to two sides of one page. As an additional enticement to complete and return the survey, respondents were offered a free copy of a book entitled *Promoting Continence Care in Canada*.¹⁷ The questionnaire is available from the principal author upon request.

The study protocol was approved by the McMaster Faculty of Health Sciences Ethics Review Board.

Data analysis

Data analysis was carried out using SPSS for Macintosh software (version 4.0 for Macintosh, SPSS Inc, Chicago, 1990). Descriptive statistics (frequencies, means, and standard deviation) were calculated for all questions. In the analysis, the 5-point scales were collapsed into

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three groupings: 1 and 2 together and 4 and 5 together (questions in section 1 were answered as “strongly agree” to “strongly disagree,” in section 2 as “very important” to “never consider,” in sections 3 and 4 as “never” to “always”).

RESULTS

Overall unadjusted response rate was 43.3% (650/1500). Of the 110 nonresponders who were contacted by telephone, 28 (25.5%) either had numbers that were not in service or were no longer at that number. An estimated 1275 family physicians could be easily reached for the survey (based on this figure). The corresponding, adjusted response rate was 51.0% (650/1275). Most (618) questionnaires contained complete data for most questions (Table 1).

Questions in the first section of the survey dealt with understanding of and general attitudes toward incontinence issues. More than 80% of respondents gave the same answers to several questions in this

section (Figure 1). Responses to questions to which there were disparate answers, that is, at least 30% of respondents agreed and at least 30% disagreed with a statement, are shown in Figure 2. Figure 3 shows responses to questions about treatments.

An overwhelming majority of respondents agreed that many patients were too embarrassed to talk about UI. Nearly all respondents disagreed with the statements: UI is not a problem if the patient does not mention it; little can be done about UI; pads solve most problems; and UI does not interfere with sexual intimacy. Two thirds disagreed with the statement that UI is a natural part of aging.

Although 46% of respondents thought they clearly understood incontinence, 38% did not. Only 37.5% of respondents indicated that they had an organized plan to deal with incontinence. Only a third of respondents felt very comfortable dealing with incontinence, and almost half reported that they usually referred patients with incontinence.

Physical examination, urodynamic studies, urinalysis, and testing blood sugar levels were all considered important investigations by more than 90% of respondents. Kegel exercises and lifestyle changes were the most frequently used treatments.

Differentiating the type of incontinence was reported to be difficult by almost two thirds of respondents, and managing incontinence was considered a difficult task by 60% of respondents. More than 50% of respondents thought that urologists knew how to deal with UI, while only 18% thought that gynecologists knew best how to deal with UI. Less than 8% referred patients to nurse continence advisors (NCAs).

DISCUSSION

As far as we know, this is the first national survey of a random sample of family physicians in Canada on UI knowledge, attitudes, and practices. We found that there are many areas in which practising physicians strongly agree with each other. It is reassuring that more than 90% of respondents disagreed that little could be done for these patients. Furthermore, more than 80% of respondents were sensitive to the social problems created by UI.

Although more than half of family physicians believed that UI was common in their practices, less than 50% indicated that they clearly understood incontinence and less than 40% had an organized plan for UI problems. Only 34.6% felt very comfortable dealing with UI. This is less than the 47% who were fairly confident in managing UI in the survey of

Table 1. Demographic and practice profile of respondents

| CHARACTERISTIC | N (%) |
|---|----------|
| Male sex | 309 (55) |
| Rural practice | 100 (16) |
| Province | |
| • Newfoundland | 17 (3) |
| • Prince Edward Island | 0 (0) |
| • Nova Scotia | 18 (3) |
| • New Brunswick | 17 (3) |
| • Quebec | 79 (13) |
| • Ontario | 273 (44) |
| • Manitoba | 22 (4) |
| • Saskatchewan | 20 (3) |
| • Alberta | 77 (13) |
| • British Columbia | 89 (14) |
| • Northwest and Yukon Territories | 3 (0) |
| Years in practice | |
| • 1-10 | 280 (46) |
| • 11-20 | 202 (33) |
| • >20 | 131 (21) |
| Payment (fee-for-service) | 452 (73) |
| Number of patients seen weekly | |
| • <50 | 40 (7) |
| • 50-100 | 193 (32) |
| • 100-200 | 328 (55) |
| • >200 | 39 (7) |
| Attended UI educational event in past 5 years | 327 (53) |
| Had exposure to UI in medical school | 379 (61) |

Figure 1. Areas of attitude toward and understanding of UI where at least 80% of respondents concurred

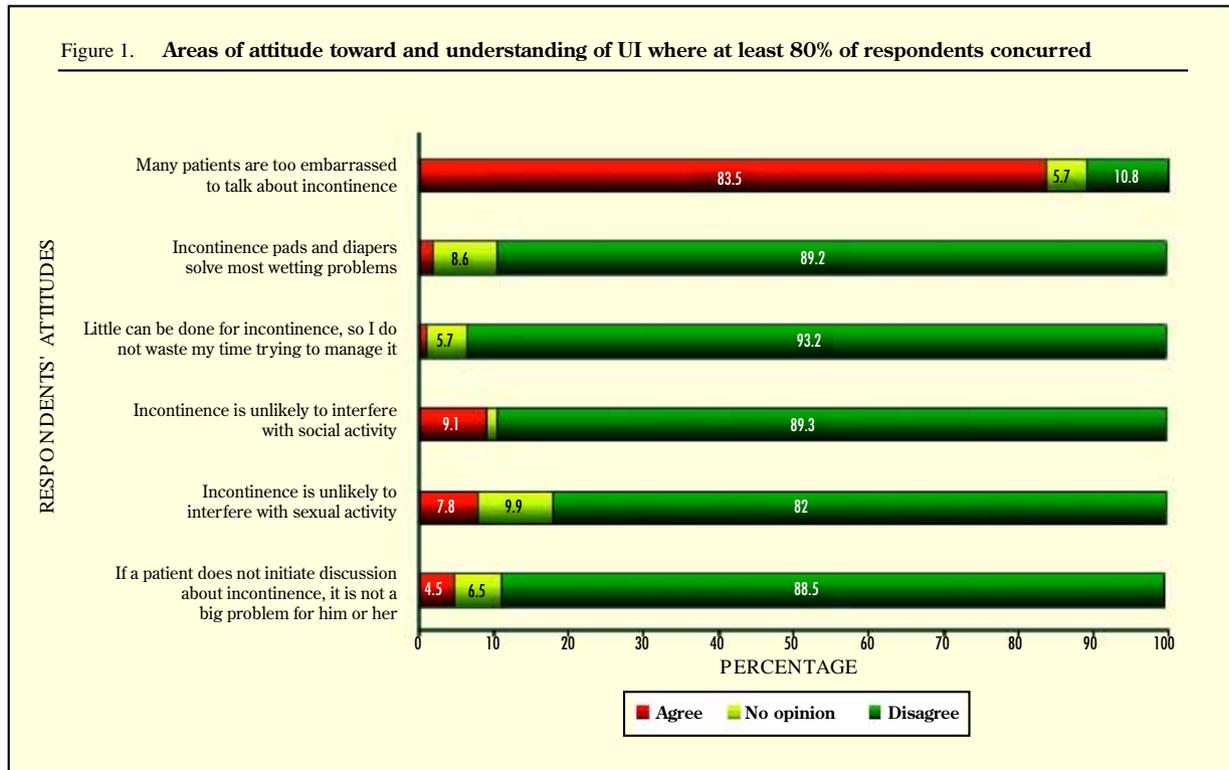
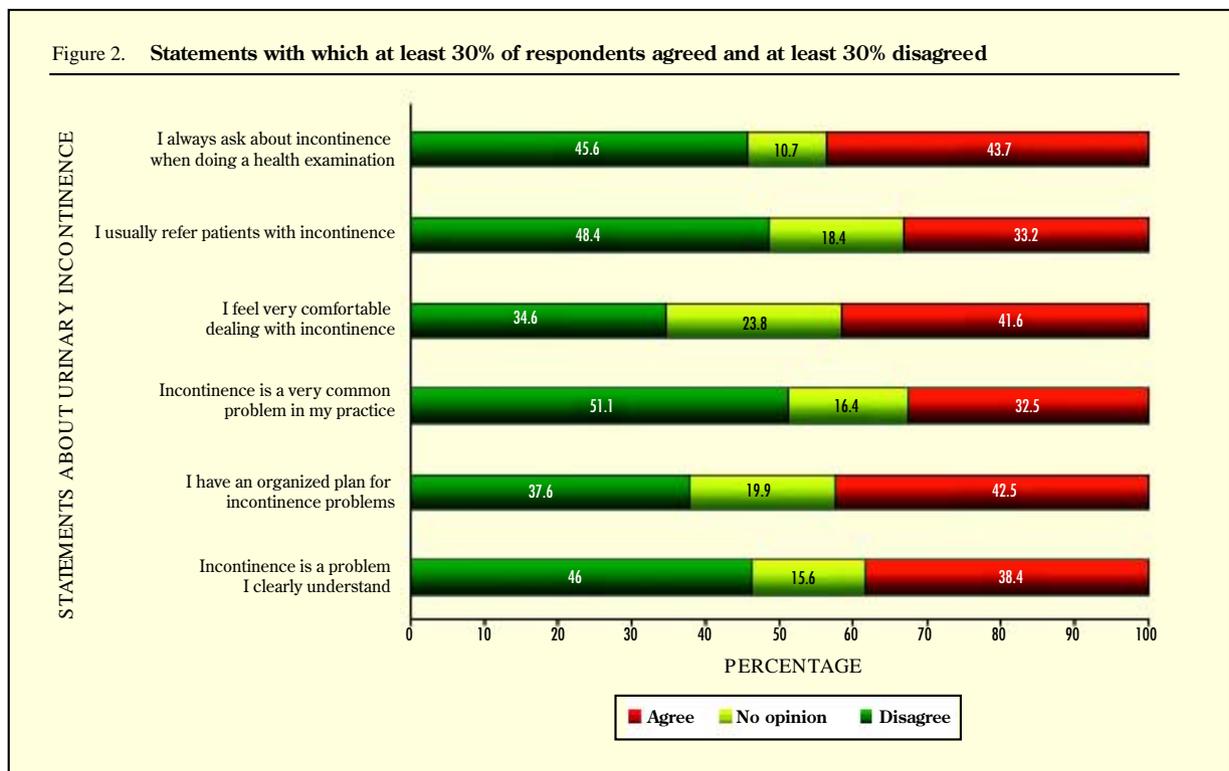


Figure 2. Statements with which at least 30% of respondents agreed and at least 30% disagreed

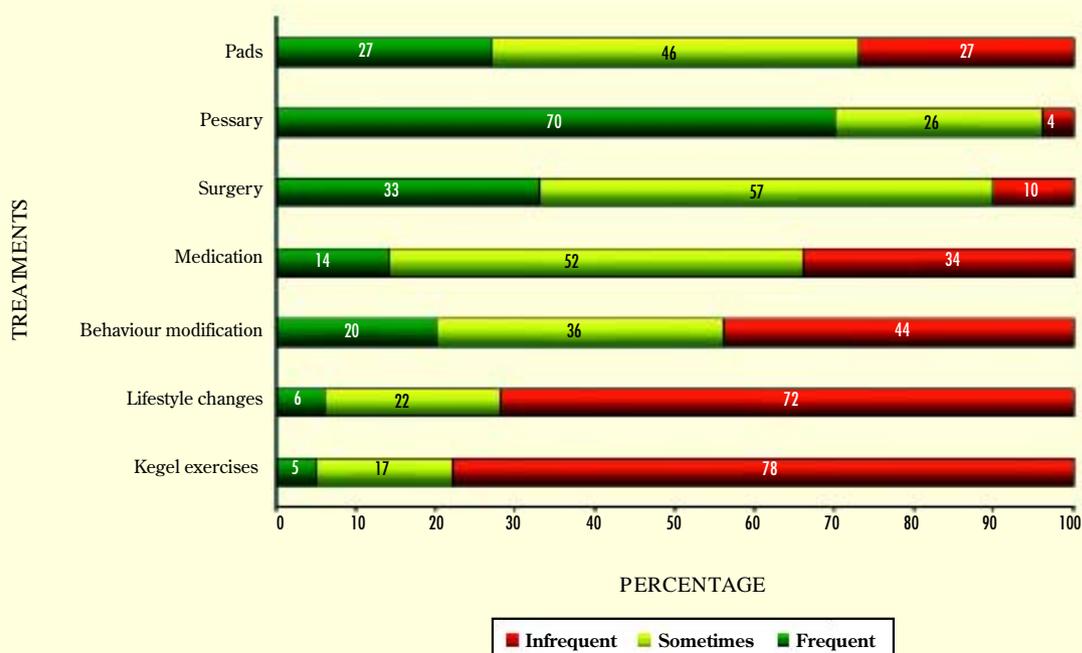


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Figure 3. Frequency of using different treatments



general practitioners in New Zealand by Dovey and colleagues.¹⁵ Family physicians, as the front line of health workers, are expected to diagnose and manage most incontinence problems. Our survey shows that many Canadian family physicians feel unprepared to deal effectively with UI.

Patients' embarrassment

Respondents in our survey agreed that many patients were embarrassed to talk about incontinence. Samuelsson and associates found that only 9% of incontinent women ever consulted a health practitioner for incontinence. Only 24% of those women started treatment.¹⁸ Similarly, Lagace and coworkers¹⁹ found that 72% of those currently afflicted with UI had not told a physician, and 37% indicated that they would have sought care if they had known tests and effective treatments were available. Seim and colleagues²⁰ reported 20% of incontinent women consulted a doctor about their incontinence. Less than 50% of women with the highest severity scores sought medical advice. Although women of all ages suffer from UI,^{19,20} those older than 50 are more likely to seek help from a physician.²⁰ Wyman and associates²¹ found that the psychosocial effect of UI did not correlate with the objectively measured degree or severity of incontinence. In Britain, Roe and coworkers³ reported that 71% of people with UI had spoken to their

GPs. This was thought to demonstrate the key role GPs have in detecting new cases and acting as gatekeepers to health services.

The current study shows that less than half of physicians always ask about incontinence. Considering the embarrassment patients feel and the low level of response that other studies have reported, physicians need to be encouraged to ask their patients during periodic health examinations whether incontinence is a problem.

Referral practices

Although differentiating the type of incontinence was reported to be difficult by almost two thirds of respondents and managing incontinence was considered a difficult task by 60%, 60% of family physicians did not think managing UI took too much time. This seeming discrepancy between those who did not believe that managing UI took too much time and the number who had trouble managing and differentiating UI could be explained by the 48% who frequently referred such patients. A recent study in Scandinavia has shown that family physicians and incontinence teams can successfully treat many patients without referral to consultants.²² A similar study needs to be done in Canada.

The common perception that urologists know best how to deal with UI (rather than gynecologists) was unexpected. Perhaps this is the result of the survey's using the term urinary incontinence, connoting a urologic problem, rather than prolapse of bladder or cystocele, which might be construed as gynecologic. The low referral rate to NCAs is unsurprising, as there are very few NCAs across Canada. Although NCAs are more common in other countries,²³ Canada is just starting to develop an NCA program, and many practitioners are unfamiliar with them. Nurse continence advisors are trained specifically to treat UI and can be a very useful resource for family physicians.

Urodynamic studies were listed as most important in investigation of UI by more than 90% of respondents. This was unexpected, as access to testing facilities is often limited in rural settings. Even in urban areas, urodynamic studies often require consultation with a urologist or gynecologist. Several studies have shown that symptoms and symptom complexes have high predictive value for type of incontinence when compared with urodynamic studies, making urodynamic studies unnecessary for initial management of many patients in family practice.^{22,24,25} Current guidelines recommend history, physical examination, postvoid urine measurement and urinalysis, and direct visualization of urine loss.²⁶

Treatment options described as most useful by respondents (Kegel exercises and lifestyle changes) parallel treatments found to be effective in practice.^{10,22,25} These responses regarding treatment are consistent with the guidelines of the US Department of Health and Human Services on managing acute and chronic urinary incontinence.²⁶ Bump and colleagues²⁷ found that verbal or written instruction alone was often inadequate to teach Kegel exercises; after instruction, one out of four subjects demonstrated a Kegel technique that promoted rather than reduced UI. Several studies showing good effects of Kegel exercises used the services of NCAs or physiotherapists to reinforce physicians' directions and provide longer instructional periods.^{10,11,25} It is necessary to observe which muscles a patient contracts when performing a Kegel exercise or to feel the contractions by putting a finger in the vagina. Without such input, success is limited.²⁸

Medication was reported as being used frequently by one third of respondents. This is somewhat less than the 41% of cases treated with medication in the study by Sandvik and coworkers.²⁹ As this was a survey of self-reported activity rather than observed behaviours, 34% could be a falsely low estimate of

Editor's key points

- This is the first survey of Canadian family physicians on their knowledge, attitudes, and practices regarding urinary incontinence (UI).
- While most FPs agree UI is an important health problem and one that can be helped, only about half thought they clearly understood the problem and only one third had an organized plan of management.
- Physical examination, urinalysis, testing blood sugar levels, and urodynamic studies were all considered important investigations.
- Lifestyle changes and Kegel exercises were most commonly used to manage UI, followed by behaviour modification and medication

Points de repère du rédacteur

- Il s'agit de la première enquête réalisée auprès des médecins de famille sur leurs connaissances, leurs attitudes et leurs pratiques à l'endroit de l'énurésie.
- Si la plupart des médecins de famille conviennent que l'énurésie est un important problème de santé qu'il est possible d'atténuer, seulement la moitié d'entre eux environ estimaient bien le comprendre et seulement un tiers des répondants avaient un plan thérapeutique structuré.
- L'examen physique, l'analyse d'urine, la mesure de la glycémie et de la dynamique urinaire étaient tous considérés d'importantes méthodes d'investigation.
- Les changements dans le mode de vie et les exercices de Kegel étaient les moyens les plus fréquemment utilisés pour la prise en charge de l'énurésie, suivis ensuite de la modification comportementale et de la pharmacothérapie.

medication use. Medication can be an effective treatment for UI^{30,31} and writing a prescription usually takes less time than giving advice about exercises and lifestyle changes. Although medication can be useful, side effects do occur.^{30,31}

Limitations

Our study had several limitations. First, we did not attempt to assess the validity of the survey instrument used. Second, the self-reported nature of our survey could have led to an overestimate or underestimate of actual practices and behaviours. Third, the relatively low response rate decreases generalizability.

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Although the adjusted response rate of 51% is similar to other studies of family physicians,³² the large number of nonrespondents could have had very different practice patterns from respondents, and the results we obtained might not reflect behaviours in the community. This survey sampled only members of the College of Family Physicians of Canada. This limits the generalizability of the results. As one criteria of membership in the College is a commitment to continuing education, perhaps it could be argued that this sample overrepresents physicians who have updated their knowledge.

CONCLUSION

There are wide variations in knowledge, attitudes, practices, and comfort level among family physicians about UI. There is uncertainty about which investigations are useful in primary care. Reported treatments are consistent with guidelines for UI management. Further study is needed to find which management initiatives that work for primary care in other countries work best in Canadian health care. Education modules and treatment plans should be developed to address family physicians' needs identified in this survey. ❀

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Contributors

Dr Swanson, the Principal Investigator, developed the survey instrument, analyzed the data, and wrote the paper. **Dr Skelly** acted as coinvestigator and collected data. **Dr Hutchison** acted as coinvestigator and advised on conducting surveys, writing articles, and developing questionnaires. **Dr Kaczorowski** helped develop the questionnaire and analyze the data.

Competing interests

None declared

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