

After-Hours Information Given by Telephone by Family Physicians in Ontario

Renseignements téléphoniques offerts
par les médecins de famille en Ontario
après les heures normales de travail



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Abstract

This study describes instructions for after-hours care offered by family physicians' offices when patients telephone the practice. Randomly selected (n=1,680) Ontario family physicians and general practitioners were telephoned after hours from October 2007 to February 2008.

Instructions among the 1,102 eligible offices suggested emergency services (58.6%; 646/1,102), the toll-free, nurse-staffed Telephone Health Advisory Service (THAS) with on-call physician back-up (45.0%; 496/1,102), the practice's own after-hours clinic (27.9%; 307/1,102), an on-call physician (8.0%; 88/1,102) or a walk-in clinic (6.9%; 76/1,102). Some messages (13.9%; 153/1,102) provided no instructions. Physicians in a reformed model with obligations to provide some after-hours care were more likely to advise an after-hours clinic (32.0%; 285/891) than other physicians (10.4%; 22/211) ($p < 0.001$).

Many family physician telephone messages in Ontario suggest emergency services only or do not provide any instructions. Only slightly more than half suggest use of the government-funded THAS. Patients may be unaware of many after-hours care options.

Résumé

Cette étude décrit les directives de soins offerts par les cabinets de médecins de famille quand les patients téléphonent après les heures normales de travail. Entre octobre 2007 et février 2008, nous avons communiqué par téléphone, après les heures normales de travail, avec des cabinets de médecins de famille et d'omnipraticiens choisis au hasard en Ontario ($n = 1680$). Les directives offertes parmi les 1102 cabinets admissibles proposaient les services d'urgence (58,6 pour cent; 646/1102), le numéro sans frais pour le service téléphonique d'aide médicale (STAM) assuré par des infirmières avec le soutien d'un médecin sur appel (45,0 pour cent; 496/1102), la propre clinique du cabinet après les heures normales (27,9 pour cent; 307/1102), un médecin sur appel (8,0 pour cent; 88/1102) ou une clinique sans rendez-vous (6,9 pour cent; 76/1102). Certains messages ne proposaient aucune directive (13,9 pour cent; 153/1102). Les médecins qui travaillent selon un modèle réformé où ils ont l'obligation d'offrir des services après les heures normales de travail étaient plus enclins à proposer des cliniques après les heures de travail (32,0 pour cent; 285/891) que les autres médecins (10,4 pour cent; 22/211) ($p < 0,001$). Dans plusieurs cas, les messages des médecins de famille en Ontario proposent seulement de recourir aux services d'urgence ou encore n'offrent aucune directive. Un peu plus de la moitié proposent d'utiliser le STAM financé par les fonds publics. Les patients risquent de ne pas connaître plusieurs des possibilités qui s'offrent à eux pour les services de soins après les heures normales de travail.

SINCE THE RESTRUCTURING OF PRIMARY CARE IN THE PROVINCE OF ONTARIO that began in the 1990s, the majority of family physicians have joined a reformed model for the delivery and funding of primary care services that

stipulates some provision of after-hours care for rostered patients (Wilson 2006). After-hours features of these models include evening and weekend clinics, and for some, providing 24/7 back-up to the provincially funded Telephone Health Advisory

The objectives of this study are to describe the type and frequency of different care options given to patients who call after hours, and to determine whether enrolment in a primary care reformed model is associated with after-hours care options.

Service (THAS) triage for rostered patients. THAS is a nurse-staffed service that triages patients to self-care, emergency department or 911 call, or seeing the family physician the next day; it can also contact the on-call physician when deemed necessary. This service is available only to physicians in specific reformed models.

In addition, any person can use the provincially funded 24/7 Telehealth Ontario hotline, a toll-free, nurse-staffed health advice service. Other commonly used after-hours services include walk-in clinics, house-call services, emergency departments and urgent care centres.

Providing patients with after-hours access to their family physician is important because (a) it allows continuity, (b) patients are satisfied seeing their own physician (Howard et al. 2007) and (c) treating minor problems in a primary care setting costs less than treatment in the emergency department (Campbell et al. 2005). Continuity in primary care has been shown to reduce emergency department use (Christakis et al. 2001; Gill et al. 2000). It is in the best financial interest of physicians who belong to some of the reformed models in Ontario to encourage use of the after-hours clinic and THAS and to discourage use of walk-in clinics by their rostered patients. The reason for this policy is that the monetary access bonus for the physician group is negated for each patient visit to a family physician not in the group (such as a walk-in clinic).

To date, only limited research has assessed patient access to primary care after hours in Canada. A study in 2001 found that 62% of family physicians and general practitioners reported providing some form of after-hours care, ranging from 34% to 88% across the country (59% in Ontario) (Crighton et al. 2005). While the information that physicians give to their patients during clinic encounters regarding medical attention after office hours is not known, the telephone instructions they provide for their patients may be a good indication. In a study of after-hours telephone instructions provided by family physicians' offices in Toronto, Ontario in 2003 (Bordman et al. 2007), a wide range of instructions was offered, including 22% that only advised attending an emergency department and 18% that gave no instructions. Since that

study was published, a significant number of family physicians in Ontario have joined new primary care practice models that provide after-hours care for their patients.

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Methods

Sampling

The 2007 Canadian Medical Directory was used to identify physicians listed with a specialty of family medicine or general practice in the province of Ontario. A random sample of 1,680 physicians, stratified by the 14 local health integration networks (LHINs), was selected.

Data collection on after-hours calls

Between October 2007 and February 2008, research assistants telephoned physicians' offices between 8 p.m. and 10:30 p.m. Monday through Friday, or on Saturdays from 9 a.m. to noon. A standard data collection form was used to document information provided by answering machines or individuals. Information collected on the form included physician or practice name; address; hours of operation; instructions (specifically for rostered patients) to use Telehealth Ontario or THAS; information on how to contact an on-call physician; the name, phone number or location of an after-hours clinic; instructions to go to (or request not to go to) a walk-in clinic; other after-hours options such as a house-call service; other numbers to call for after-hours care (e.g., paging or answering service); and instructions to use an emergency department, urgent care centre or 911 call. If instructions included conditional or multiple options, each was recorded. A sample of 45 physicians was used to train the research assistants for agreement on the coding scheme. Discrepancies among research assistants were discussed together with one author (MH), and the coding scheme and instructions were modified accordingly. When research assistants were not certain how to code information, it was flagged for one author (MH) to review and decide on the final code.

If a person answered the telephone call, such as an answering service or clinic staff, the caller described the study briefly and asked what information a patient would receive if calling at that time. If a switchboard was reached, the research assistant asked for the physician's office or telephone extension in an attempt to obtain the information.

The information on funding models was obtained from the Ministry of Health and Long-Term Care after data collection was completed.

Data analysis

Data analyses were conducted using SPSS version 15.0 (Chicago, IL). A descriptive analysis was undertaken on the number of and reasons for ineligible telephone numbers and the prevalence of instructions for different care options among eligible telephone numbers. Associations between physician practice model and characteristics (year of graduation and gender) and specific instructions were examined using Pearson's chi-square test. The criterion of statistical significance was set at $\alpha=0.05$ (two-sided).

Results

Five-hundred seventy-eight physicians were deemed ineligible because the telephone number was incorrect ($n=161$, for example, no answer, personal number or not a healthcare organization); a family physician's office was not reached ($n=395$, for example, the physician was an emergency physician or worked in a specialty clinic such as dermatology or mental health); or a person was reached who declined to provide the information ($n=22$). The remaining 1,102 physician offices were included in the analysis. Of these, 1,056 (95.8%) of the calls went to a recorded message and 46 (4.2%) resulted in speaking to an individual directly.

Instructions for patients included a menu of more than one option 56.3% (621/1,102) of the time. Instructions commonly included suggesting that patients use emergency services (58.6%; 646/1,102); the toll-free, nurse-staffed Telephone Health Advisory Service for the physician's rostered patients (45.0%; 496/1,102); or visiting an after-hours clinic (27.9%; 307/1,102). Information given less often included contacting an on-call physician directly (8.0%; 88/1,102); suggesting the use of a walk-in clinic (6.9%; 76/1,102); or suggesting the use of the toll-free Telehealth Ontario service (6.6%; 73/1,102). Instruction to visit an emergency department or call 911 was the only instruction given by 14.7% (162/1,102) of offices. Some family physicians (13.9%; 153/1,102) provided none of these instructions for after-hours care.

Among physician messages that instructed patients to use THAS, 39.9% (198/496) mentioned that it was a nurse-staffed service, and 31.3% (155/496) mentioned that it was for use by registered patients.

Table 1 shows the distribution of different practice models and which models are financially negated if a patient visits a family physician outside the group. Table 2 displays the instructions provided by physicians in reformed models versus other physicians. Physicians in a reformed model were more likely to provide information on the availability of an after-hours clinic ($p<0.001$) than other physicians. However, physicians in reformed models were less likely than other physicians to provide the public Telehealth number ($p=0.03$), on-call physician information ($p=0.01$), other physician contact information ($p=0.01$) or instructions to use emergency services (an emergency department, urgent care centre or 911 call) ($p<0.001$). They were also less likely to provide no instructions ($p<0.001$).

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TABLE 1. Distribution of practice models among 1,102 eligible family physician offices telephoned after hours

Funding model	% (n)	Group negated if a patient visits a family physician outside the group
Family Health Group	48.5 (534)	No
Family Health Network	20.5 (226)	Yes
Family Health Organization	5.9 (65)	Yes
Rural and Northern Physician Group	2.0 (22)	No
Group Health Cooperative	0.7 (8)	Yes
Other special reformed arrangements	3.3 (36)	No
Non-reformed models	19.1 (211)	No

TABLE 2. Instructions given in telephone message by physicians in reformed model and physicians not in a reformed model

	Total sample* % (n) (n=1,102)	In reformed model % (n) (n=891)	Not in reformed model % (n) (n=211)	p value [†]
Telephone Health Advisory Service (THAS)	45.0 (496)	52.5 (468)	13.3 (28 [‡])	<0.001
Telehealth Ontario	6.6 (73)	5.8 (52)	10.0 (21)	0.03
Emergency department, urgent care centre or 911	58.6 (646)	59.9 (534)	53.1 (112)	0.07
Walk-in clinic	6.9 (76)	7.2 (64)	5.7 (12)	0.44
Do not use walk-in clinic	1.2 (13)	1.3 (12)	0.5 (1)	0.29
After-hours clinic	27.9 (307)	32.0 (285)	10.4 (22)	<0.001
On-call physician	8.0 (88)	7.0 (62)	12.3 (26)	0.01
Other number – not mentioning any of above	8.2 (90)	7.2 (64)	12.6 (26)	0.01
Only emergency department [‡] /urgent care/911	14.7 (162)	12.6 (112)	23.7 (50)	<0.001
None of the above	13.9 (153)	11.1 (99)	25.6 (54)	<0.001

* Some physicians gave multiple options in the message; therefore, the categories are not mutually exclusive.

† For comparison between physicians in a reformed model and those not in a reformed model

‡ Physicians who were not in a reformed model but whose telephone number matched that of a physician in a reformed model

Approximately one-quarter of physicians (27.1%; 299/1,102) worked under a model in which they would be financially negated if a patient visited a walk-in clinic. Compared to physicians in reformed models without negations, these physicians (a) were significantly more likely to provide THAS information (58.2% [174/299] versus 49.7% [284/575], $p=0.02$), (b) were less likely to suggest a walk-in clinic (4.7% [14/299] versus 8.4% [50/592], $p=0.04$) and (c) were more likely to instruct patients not to use a walk-in clinic (4.0% [12/299] versus 0, $p<0.001$) (Table 3).

TABLE 3. Instructions given in telephone message for reformed-model family physicians with, versus without, negations for visiting other family physicians

	Total sample* % (n) (n=891)	With negations % (n) (n=299)	Without negations % (n) (n=592)	p = value[†]
Telephone Health Advisory Service (THAS)	52.5 (468)	58.2 (174)	49.7 (294)	0.02
After-hours clinic	32.0 (285)	34.4 (103)	30.7 (182)	0.26
Walk-in clinic	7.2 (64)	4.7 (14)	8.4 (50)	0.04
Do not use walk-in clinic	1.3 (12)	4.0 (12)	0	<.001

* Some physicians gave multiple options in the message; therefore, the categories are not mutually exclusive.

† For comparison between physicians with vs. without negations

There were no statistically significant differences in any of the instructions by year of graduation from medical school (<1970, 1970–1979, 1980–1989, 1990+) or gender.

Discussion

This study found that in a random sample of family physician offices in Ontario telephoned after hours, instructions to use an emergency department, urgent care centre or 911 call were the most frequent, followed by instruction to use THAS. The instruction to use THAS was more common among reformed practices than in other family practices. Few offices mentioned the Telehealth Ontario option, and nearly 14% provided no information on obtaining after-hours care. These results are similar to the study by Bordman and colleagues (2007), who also found that the emergency department was the most common instruction and that 9% gave Telehealth information, but found that a larger proportion (18%) provided no instructions. The main difference in the present study is the uptake of THAS for rostered patients of reformed models, which triages patients to emergency department or 911 call, self-care, or seeing the family physician the next day, or contacts the on-call physician in the group to see or speak to the patient immediately. Physicians may also choose to provide a direct

number for an on-call physician. Few, however, offer this information, presumably because THAS triage is available to avoid overuse of the on-call physician.

The instruction to go to a walk-in clinic was not significantly less common in reformed models as one might expect; however, it was a relatively uncommon instruction among all physicians. A small number of physicians in models with financial

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negation for outside use (i.e., walk-in clinics) instructed patients not to go to a walk-in clinic, whereas no physicians in reformed models without negation gave this instruction. The previous study in Toronto combined instructions to use walk-in clinics and after-hours clinics. In the present study we distinguished between messages that used the wording “walk-in clinic” versus “after-hours clinic” because use of these

different services has implications for physicians in some models. While physicians in any reformed model were more likely to suggest the after-hours clinic than physicians who were not in a reformed model, this instruction was not significantly more common among models with financial negation compared to models without negation.

Many physicians in a reformed model who could offer the THAS number did not provide it. This omission may have occurred because enrolment in these models in Ontario was ongoing at the time, and some physicians may have been in the process of rostering patients and changing their organizational procedures around access and after-hours care. Although THAS is a service to assist physicians in meeting their requirements to provide after-hours care in Ontario, some may not present it on their telephone message and may offer direct on-call services instead. Some physicians provide more after-hours evening clinics than the minimum required and have staff answering telephones at the times we called. In addition, some physicians in reformed models choose not to advertise THAS on their messages. In a study of 21 physicians in Hamilton, Ontario, only one-third agreed that THAS gave the same advice they would (Neimanis et al. 2009), suggesting that some physicians may not be satisfied with the service. There were 28 physicians not in a reformed model at the time of this study but whose messages gave the THAS number. As the telephone numbers of these physicians matched a telephone number of a reformed-model physician, these may have been group practices or clinics sharing a central reception.

In a province that has committed resources to after-hours primary care accessibility, the finding that 13.9% of physicians’ offices (11% in a reformed model and

26% of other physicians' offices) do not provide any instructions for after-hours care, and that similar proportions advise only the emergency department, calls into question the potential impact of reforms on improving access. While some physicians may communicate patient instructions in some other manner, such as brochures, signs or websites, these are unlikely to reach all patients, especially those who infrequently visit the physician. The fact that nearly half of family physicians not in a reformed model (49.3%) and almost a quarter of those in a reformed model (23.7%) either do not provide any patient instructions or do not provide instructions for accessing alternatives to emergency departments after hours may result in many patients' perception that the emergency department is the only option for after-hours care.

Limitations

A limitation of this study was the use of the Canadian Medical Directory, a private database to which physicians voluntarily provide information. Use of this database may have contributed to a high number of unusable telephone numbers. Some physicians working in more than one clinical setting and those with other professional or administrative roles in addition to their family practice may have been excluded because the telephone number available was not their family practice office. It is also possible that many physicians listed as family physicians did not have a family practice. We wished to ensure that the telephone numbers included were family practices, to avoid underestimating the prevalence of after-hours instructions.

Conclusion

Based on our review of telephone instructions for after-hours care provided by family physicians in Ontario, many physicians are offering alternatives to emergency services for after-hours care. Despite this finding, overall physician dissemination of alternatives to emergency services, at least through their after-hours telephone messages, has been less than ideal. Future research should examine reasons for this unexpected finding and explore possibilities for improving the communication of after-hours options to patients.

ACKNOWLEDGEMENTS

This study was funded by the Ontario Ministry of Health and Long-Term Care. The views expressed in this paper are the views of the authors and do not necessarily reflect those of the Ministry.

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