Original Research

Ethical decision making by Canadian family physicians

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Canadian family physicians were sent questionnaires that asked how they would handle the ethical problems posed by six sample cases and what reasons were relevant to their decisions. The ethical problems concerned how much information to divulge to patients, how extensively a physician should become involved in the lifestyles of patients and how to deal with a possible family problem. The study identified characteristics of family physicians that affect their ethical decision making and tested a theoretical model that regards ethical problems as conflicts between respecting patient autonomy and promoting patient welfare. The varied responses suggested that ethical issues are resolved on a case-by-case, rather than a theoretical, basis. Certification in family medicine was the only characteristic associated with a consistent pattern of responses; certificants were more likely than other physicians to involve patients in decisions.

Dans un sondage auprès de médecins de famille canadiens, on leur demande de dire, avec motifs à l'appui, comment ils résoudraient les problèmes déontologiques soulevés par six castypes. Ces problèmes relèvent de la vérité à dire aux malades, de l'intervention du médecin dans leur mode de vie et de ce qu'il doit faire s'il soupçonne une difficulté familiale. On a pris comme hypothèse de travail que ces problèmes constituent des conflits entre l'autonomie du client et son bien-être. Parmi les facteurs personnels chez le médecin qui influent sur ses décisions déontologiques, on n'en retient qu'un seul qui le fasse dans un sens constant: le porteur du certificat de formation en médecine familiale est plus enclin que celui qui ne l'est pas à faire participer le malade à la prise de décision. Enfin, l'analyse des réponses fait penser que les problèmes d'ordre éthique sont résolus selon les circonstances plutôt que conformément à des théories.

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Although ethical issues in medicine have been widely discussed in theoretical terms, they have not attracted much empirical research. Ethical issues in family medicine, moreover, have been largely ignored, presumably because they lack the drama of life-and-death situations and the glamour of new technologies. When an empirical study of the ethical decision making of family physicians was conducted,[1] it asked questions about euthanasia, abortion, contraception, artificial insemination and brain death, rather than the more common, prosaic problems that arise in family practice.

An understanding of ethical decision making in any area of medicine requires empirical as well as conceptual research: "the strongest and most useful approach to medical ethics involves *both* empirical awareness of physicians' attitudes and studies of how decisions are made on a case-by-case basis *and* careful theoretical analysis of the crucial concepts involved in ethical behavior and in the nature of the physician-patient . . . relation-

ship."[2] Several theoretical investigations of the ethical problems facing family physicians have appeared recently.[3,4] Our research incorporates both the empirical and the theoretical by focusing on the approaches that family physicians take to ethical issues endemic to their practices as well as on prevailing moral concepts.

Our study had two main aims. One was to see whether the reported ethical decision making of family physicians is more theoretically or pragmatically oriented. In other words, would family physicians adopt a consistent theoretical stance for all cases, or would they be sensitive to the contextual differences of each case? This question was explored in terms of the widely accepted theoretical approach that regards ethical issues in medicine as conflicts between respecting the value of patient autonomy, which leads to patient-control solutions, and promoting the value of patient welfare, which leads to physician-control solutions. The other aim was to identify characteristics, such as sex, age and religious affiliation, that affect how family physicians decide on ethical problems and the reasons they regard as salient to their decisions.

This Canadian study was part of an international research project. Revised versions of the six cases used in the study have been administered to general practitioners in England and Wales and to family physicians in the United States to see whether and, if so, how cultural differences influence ethical decision making in medicine.

Methods

Questionnaire development

Cases were collected from six family physicians in London, Ont. Each case described a problem that a patient had actually presented to his or her family physician and that the physician believed raised an ethical issue (Table I). For each case possible courses of action and reasons for the various courses of action were developed (Table II). The cases were discussed over a number of years in a graduate seminar on ethical issues in family medicine that included experienced family physicians and graduate students in philosophy. The cases were evaluated in terms of their relevance to family practice as well as the plausibility of the courses of action and the reasons for those actions. As a result of this review, six cases, each with five courses of action and six reasons, were selected for the study. The cases dealt with the issues of control of information, intervention in patient lifestyle and the family as the focus of care.

A pilot study was conducted to assess the questionnaire and to determine how long it took to complete. The reliability of the questionnaire was ascertained through a test and retest of 38 local family physicians. Agreement between the results of the test and those of the retest was 75% or greater for the courses of action and more than 90% for the reasons. To validate our scoring system, the courses of action and reasons were reviewed by six family physicians and philosophers in Canada, England and the United States whom we deemed experts on ethical issues in family practice. In almost all instances the experts

Table I — Six cases used in a questionnaire to determine how family physicians decide on ethical problems

Case 1: A single woman in her 20s may have multiple sclerosis. She is examined by her family physician after one episode of temporary blindness, but there are no abnormal physical findings. She is referred to an ophthalmologist, whose report is negative.
Case 2: A woman in her mid-20s comes to her family physician because her boyfriend has a venereal disease, even though she has no symptoms. Samples are taken from the urethra, cervix and anus and are cultured for gonococci. Only the anal swab gives positive results.
Case 3: A 17-year-old man has been in hospital four times recently because of his asthma, which is difficult to control in spite of medications, including cortisone. Despite the physician's efforts the patient continues to smoke two to three packs of cigarettes a day.
Case 4: Vaginal bleeding develops in a postmenopausal woman who is receiving cyclic hormone therapy. The physician wants her to undergo dilatation and curettage to rule out cancer of the endometrium. The hormone therapy could be stopped to see if the bleeding stops.
Case 5: A married woman arrives at an emergency department with three vaginal lacerations that require suturing under general anesthesia. The patient finally admits that the lacerations occurred after her husband inserted a beer bottle into her vagina.
Case 6: A family physician receives an operative note regarding a vasectomy performed on a male patient whom he had not referred. The doctor has cared for the family for 10 years and knows that the patient's wife had a tubal ligation 2 years ago.

Table II — The possible courses of action and the reasons for the various actions proposed in case 3

Courses of action
Accept the fact that the patient smokes and deal with his medical problem as best you can
Continue to remind the patient during each visit about how his smoking affects his asthma
Involve the patient's parents in the attempt to get him to stop smoking
Refuse to continue cortisone treatment unless the patient stops smoking
Threaten to discharge the patient unless he stops smoking
Reasons for the courses of action
A belief that the patient's smoking does not harm other people
The probable health consequences for the patient from his smoking
The patient's freedom to choose his own lifestyle
The time wasted in caring for a patient who has no motivation to change his behaviour
The patient's age and relative immaturity
The feeling that smoking is a bad habit

agreed with our scoring system. Several minor changes in the scoring and wording of items were made in response to their assessments.

Data collection

A systematic sample (with a random start) was taken of the 1983 list of members and certificants of the College of Family Physicians of Canada. A one-in-four sampling fraction resulted in 1301 physicians to be approached. Cognizant of recent work on the role of gender in moral decision making,[5-7] we estimated that a sample size of 900 was needed to allow a reasonable chance of detecting differences, should they exist, between male and female physicians. Given our expectation that two-thirds of those approached would reply, we chose to send the questionnaire to 1300 family physicians.

The Total Design method for conducting mailed surveys[8] was used. In keeping with this method, we distributed the questionnaire in an attractive booklet in which the six cases preceded questions about demographic characteristics. We sent a covering letter signed by all three investigators, a thank-you or reminder postcard after 1 week and two follow-up letters with questionnaires after 4 and 8 weeks.

Table III — Characteristics of the family physicians who responded to the questionnaire

Characteristic	No. (and %) of patients
Age, yr	(n = 913)
≤ 30	144 (15.8)
31–35	258 (28.3)
36–40	187 (20.5)
41–45	110 (12.0)
≥ 46	214 (23.4)
Sex	(n = 912)
Male	705 (77.3)
Female	207 (22.7)
Marital status	(n = 909)
Married or common law	798 (87.8)
Other	111 (12.2)
Type of practice	(n = 896)
Solo	323 (36.0)
Group	573 (64.0)
Size of community	(n = 909)
≤ 4999	121 (13.3)
5000–24 999	160 (17.6)
25 000–99 999	168 (18.5)
100 000–249 000	125 (13.8)
≥ 250 000	335 (36.8)
Academic affiliation	(n = 910)
Yes	298 (32.7)
No	612 (67.3)
Association with the College of Family Physicians of Canada	(n = 909)
Certificant	631 (69.4)
Member	278 (30.6)
Attendance at religious services	(n = 766)
Attending at least once a month	346 (45.2)
Not attending at least once a month	420 (54.8)

Results

Of the 1301 physicians approached, 918 (70.6%) responded: 52.0% replied before the first follow-up letter, 15.0% after the first follow-up letter and 3.6% after the second follow-up letter. Seventy-three unopened envelopes were returned because the physicians had moved and could not be traced, had left Canada, were on sabbatical, had left family practice or had retired. The response rate increased to 74.7% when these ineligible physicians were excluded.

The 918 respondents were compared with the 383 who did not respond or were ineligible. The two groups were similar in terms of sex, year of graduation and location of medical school. They were significantly different, however, in terms of the size of the community in which they practised. Physicians from cities with a population smaller than 250 000 were overrepresented in our sample.

Table III shows the characteristics of the family physicians who replied. They were evenly distributed over the five age groups, 77.3% were men, and 87.8% were married. Two-thirds were in group practice, and two-thirds practised in cities with a population less than 250 000. One-third had a teaching affiliation, and 69.4% were certificants of the College of Family Physicians of Canada.

Table IV displays the distribution of the selected courses of action for the six cases. The five choices for each case were ranked on a scale from

Table IV — Distribution of the courses of action in the six cases

Case (and no. of responses)	Rating of course of action;* % of responses					
	1	2	3	4	5	Total
1 (912)	49.9	17.1	6.8	7.3	18.9	100.0
2 (908)	9.7	45.7	31.5	12.4	0.7	100.0
3 (893)	10.5	70.0	9.5	3.3	6.7	100.0
4 (904)	27.9	21.5	12.7	30.6	7.3	100.0
5 (909)	0.1	71.3	7.7	20.0	0.9	100.0
6 (908)	0.4	39.0	9.4	43.6	7.6	100.0

*On a scale from greatest patient control (1) to greatest physician control (5).

1 (patient control) to 5 (physician control). With case 1, for example, the option of telling the patient about the possibility of multiple sclerosis along with other possible diagnoses was given a score of 1. The option of telling her in the future about the possibility of multiple sclerosis only if subsequent definite signs appeared was given a score of 5.

The patterns of choices for the courses of action differed among the cases. With cases 1 and 4, which dealt with control of information, the responses were spread across the scale. In contrast, with cases 3 and 5, which dealt with lifestyle intervention, a score of 2 was most frequently given — that is, close to the patient-control end. With case 3 most physicians chose the alternative of continuing to remind the patient on each of his visits about how his smoking affected his asthma. Case 2, which also dealt with lifestyle intervention, differed in that there was a heavy distribution in the three middle categories of the scale. Case 6 concerned a possible family problem, a quite different topic; the responses were primarily distributed in the three middle categories, approximately equal numbers of physicians choosing a patient-control course of action in which the issue would be discussed only if the patient brought it up at a subsequent visit (score of 2) and a physician-control course of action in which the issue would be raised with the patient at a subsequent visit (score of 4).

Table V shows the distribution of the reasons for the decisions. When a patient-autonomy or patient-welfare response was chosen as the most important reason a score of 3 was given; scores of 2 or 1 were given when the autonomy or welfare response was selected as the second or third most important reason respectively; and a score of 0 was given when neither was selected as one of the three most important reasons.

The patterns of choices for the reasons for actions varied among the cases. For the cases that dealt with control of information (cases 1 and 4) 34.1% and 35.0% of the physicians respectively thought a patient-autonomy reason was the most important consideration. With case 1, for example, these physicians regarded the patient's right to know that she might have multiple sclerosis as the most important reason in arriving at their decisions. The results for cases 2, 3 and 5, which dealt with lifestyle intervention, varied. With case 3, the probable consequences for the patient's health from his smoking (a patient-welfare reason) was chosen by 74.6% of the physicians to be the most important reason. With case 2, 46.0% of the physicians thought the patient's freedom to engage in whatever sexual behaviour she wanted (a patient-autonomy reason) was the most important issue. However, with case 5 a patient-autonomy reason was considered most important by only 30.1% of the physicians, and the potential risks to the patient's health if these sexual practices continued (a patient-welfare reason) was considered the most important or second most important reason by 49.8% of the physicians. With case 6 the patient-autonomy and patient-welfare reasons were equally selected, by 25.5% and 24.3% of the physicians respectively. Again, the patterns of choosing reasons for actions varied from case to case.

Statistically significant results were obtained for four demographic characteristics: age, sex, certification in family medicine and church attendance. Older physicians were more likely to choose a physician-control course of action for cases 2 and 4, which dealt with a woman who had a venereal disease and a postmenopausal woman who had vaginal bleeding respectively. Table VI outlines the relation between age and the proportions of physicians who chose one of the two physician-control courses of action for case 2 (arrange a follow-up

Table V — Distribution of the reasons for the courses of action in the six cases

Case, reason (and no. of responses)	Score of reason;* % of responses			
	0	1	2	3
1				
Welfare (901)	35.4	24.5	22.9	17.2
Autonomy (901)	36.8	14.0	15.1	34.1
2				
Welfare (855)	66.5	21.6	9.9	2.0
Autonomy (855)	20.5	13.7	19.9	46.0
3				
Welfare (860)	3.5	6.0	15.9	74.6
Autonomy (850)	36.1	34.5	18.9	10.5
4				
Welfare (852)	41.1	32.4	21.5	5.0
Autonomy (858)	34.5	14.9	15.6	35.0
5				
Welfare (901)	19.2	31.0	18.1	31.7
Autonomy (901)	69.9	15.5	6.7	7.9
6				
Welfare (882)	18.5	26.4	29.6	25.5
Autonomy (883)	28.1	24.9	22.7	24.3

*When a patient-autonomy or patient-welfare response was chosen as the most important reason a score of 3 was given; scores of 2 or 1 were given when the autonomy or welfare response was selected as the second or third most important reason respectively; and a score of 0 was given when neither was selected as one of the three most important reasons.

Table VI — Relation between age and selection of a physician-control course of action in case 2

Age, yr (and no. of physicians)	% of physicians who chose a physician-control course of action
≤ 30 (143)	9.1
31–35 (256)	5.9
36–40 (186)	12.3
41–45 (109)	13.7
≥ 46 (209)	24.8

$\chi^2 = 39.5$, 4 degrees of freedom, $p < 0.001$.

session to discuss the patient's "abnormal" sexual practices or suggest to the patient that there is something wrong with her sexual behaviour). The differences in the proportions for case 4 were also statistically significant but were not as great as those for case 2: 38.5% of the physicians aged 30 years or less chose a physician-control course of action, compared with 31.6% of those aged 31 to 35 years, 38.0% of those aged 36 to 40 years, 43.0% of those aged 41 to 45 years and 42.0% of those 46 years of age or older. Case 6 differed from all the other cases; 57.6% of the physicians 30 years of age or younger, compared with only 36.8% of those 46 years of age or older, chose one of the two physician-control courses of action (call the patient and discuss the vasectomy with him or raise the issue with the patient on a subsequent visit).

There were two statistically significant findings regarding the sex of the physicians. Female physicians were more likely than male physicians to select a physician-control course of action for case 1: 33.5% of the women, compared with 24.3% of the men ($\chi^2_c = 6.95$, 1 degree of freedom, $p = 0.008$), chose either to wait for more definite signs to appear before mentioning the possibility of multiple sclerosis to the patient or to order further investigations. With case 5, however, women were more likely than men to choose a patient-control course of action: 79.1% of the women, compared with 69.2% of the men ($\chi^2_c = 8.4$, 1 degree of freedom, $p < 0.01$), chose either to treat the patient's vaginal lacerations with no comment or to treat and give the patient an opportunity to talk.

Those who reported attending a religious service at least once a month were more likely than those who did not attend to choose physician-control courses of action for case 1 (28.4% v. 23.8%) and case 2 (18.9% v. 9.7%).

Table VII — Association between the courses of action and the reasons chosen

	Association; Spearman rank correlation coefficient (r_s)	
Case	Course of action with patient-welfare reasons*	Course of action with patient-autonomy reasons†
1	+0.17	−0.60‡
2	+0.19	−0.50‡
3	+0.13	−0.31‡
4	+0.07	−0.60‡
5	+0.19	−0.09
6	+0.34‡	−0.37‡

*Correlations with the welfare reasons are positive because high scores for such reasons were associated with high scores for the courses of action (physician-control courses of action had scores of 4 or 5).
†Correlations with the autonomy reasons are negative because high scores for such reasons were associated with low scores for the courses of action (patient-control courses of action had scores of 1 or 2).
‡$p < 0.001$; $r_s > 0.20$.

Certificants in family medicine were less likely than those who did not receive certification to choose physician-control courses of action for four cases: case 1, 24.0% v. 31.9%; case 2, 9.5% v. 21.7%; case 4, 35.1% v. 43.7%; and case 5, 19.7% v. 24.4%. The findings with only the first three cases were statistically significant, however.

We hypothesized that physicians would decide cases consistently: for example, if a physician chose a course of action that manifested patient control for one intervention-in-lifestyle case, he or she would choose similar courses of action for the other intervention-in-lifestyle cases. However, the correlations for consistency in choosing the courses of action were low, from −0.08 to +0.16 (Spearman rank correlation coefficients).

We had two hypotheses concerning the underlying theoretical framework for the family physicians' ethical decision making. We thought that physician-control courses of action would be associated with patient-welfare reasons and that patient-control courses of action would be associated with patient-autonomy reasons. Correlations between courses of action and reasons chosen are shown in Table VII. Although all were statistically significant because of our large number of subjects, only those greater than 0.2 are worth consideration. Case 6 was the only one in which a physician-control course of action was correlated with a patient-welfare reason. In all the cases except case 5, however, patient-control courses of action were correlated with patient-autonomy reasons.

Discussion

Only certification in family medicine was associated with a consistent approach to ethical decision making. Physicians who were certificated, either as a result of experience, a residency training program or self-selection, were more likely to choose patient-control courses of action for four of the six cases. These physicians appeared to be more tolerant of or more sensitive to patient involvement in care. Because our sample contained only physicians associated with the College of Family Physicians of Canada, this finding cannot be generalized to all family physicians in Canada.

Four other characteristics of Canadian family physicians — marital status, religion, academic affiliation and size of the community — did not seem to influence ethical decision making. Sex, age and attendance at religious services were found to be related to ethical decision making, but the nature of the relationship appeared to depend on the particular features of the cases. Female physicians were more likely than male physicians to withhold information in the case of possible multiple sclerosis (no. 1), and male physicians were more likely than female physicians to intervene in the patient's lifestyle in the case of vaginal lacerations (no. 5). Older physicians were more likely

than younger ones to withhold information in case 4 and to intervene in the patient's lifestyle in the case of venereal disease (no. 2). Those who attended religious services were more likely than those who did not to withhold information in case 1 and to intervene in the patient's lifestyle in case 2. No demographic characteristic was related to a consistent pattern of responses for all the cases or for the similar types of cases.

Cases 3 and 6 deserve special comment. In case 3, that of difficult-to-control asthma, 70.0% of the physicians chose our second patient-control course of action: continuing to remind the patient at each visit about the effects of smoking on his asthma. Curiously, however, the score for patient-welfare reasons was higher in this case than the scores for patient-autonomy or patient-welfare reasons in all the other cases. This is the most dramatic example of lack of support for a patient-control course of action by patient-autonomy reasons. Perhaps the choice of a patient-control course of action here represents not an overwhelming respect for patient self-determination, especially given the serious health consequences of smoking, but, rather, the futility of trying to get patients to stop smoking. It is the path of resignation, in other words, not the path of respect for autonomy.

Case 6, that of a surprise vasectomy, is interesting because of the almost even split in numbers between the physicians who chose our second patient-control course of action (discuss the issue with the patient only if he brings it up at a subsequent visit) and those who chose our second physician-control course of action (raise the issue with the patient at a subsequent visit). In addition, the scores for patient-autonomy and patient-welfare reasons were virtually identical. But this case involved a nonmedical problem and raised the controversial issue of the family as the unit of care; it could be argued that the concepts of patient autonomy and welfare are different and perhaps even inapplicable here. Moreover, this case was anomalous because it was the only one in which a man was involved in a sexual issue. The responses show that the case was troublesome but do not reveal why.

Discussions of ethical issues in medicine and the nature of the physician–patient relationship from philosophical and legal perspectives often create two distinct impressions: first, that there is a uniform posture that a physician should adopt for all physician–patient interactions — one that puts the patient in control of decision making — and, second, that the reason for adopting this posture is the importance of respecting patient autonomy. Many ethical dilemmas are seen as pitting the physician's judgement about what is in the patient's best interest (patient welfare) against the patient's moral and legal right to direct his or her own life, health and destiny (patient autonomy). Philosophers and lawyers often argue, on *a priori* grounds, that this conflict should be resolved in favour of patient self-determination.

The results of this research do not reflect the consistency demanded by such a theoretical approach to moral decision making. The selection of patient-control and physician-control courses of action and of patient-autonomy and patient-welfare reasons varied between the cases, regardless of whether the cases dealt with the same general issue or with different issues. The reported ethical decision making of family physicians, in other words, appears to be a function more of the circumstances of individual cases than of a commitment to a single theoretical perspective.

To illustrate the general variability in our results, the combined responses for the two patient-control courses of action (scores 1 and 2, Table IV) for the six cases are 67.0%, 55.4%, 80.5%, 49.4%, 71.4% and 39.4% respectively. The combined responses for the two physician-control courses of action (scores 4 and 5, Table IV) are 26.2%, 13.1%, 10.0%, 37.9%, 20.9% and 51.2% respectively. The overall pattern does show a decided preference for patient-control courses of action, but the significant variations can be explained only by reviewing the cases.

The variability in our results is evident not only across the categories of cases but also within the categories. Table IV shows that cases 1 and 4, which dealt with control of information, differed from the others in that most of the responses fell at the ends of the scale. Yet the two cases differed in that 67.0% of the physicians chose a patient-control course of action for case 1, but only 49.4% chose such a course of action for case 4. Similar variability was evident for the three cases that dealt with lifestyle intervention. For cases 3 and 5, 70.0% and 71.3% of the physicians respectively chose the second patient-control course of action, whereas for case 2 only 45.7% of the physicians chose the second patient-control course of action. One would have expected the responses for cases 2 and 5 to be more similar because they both dealt with sexual behaviour.

Only half of the theoretical model that associated patient-autonomy reasons with patient-control decisions and patient-welfare reasons with physician-control decisions was supported by this research. Although patient-control courses of action were generally correlated with patient-autonomy reasons, physician-control courses of action were correlated with patient-welfare reasons for only case 6, which is idiosyncratic.

Conclusions

This research revealed a discrepancy between theoretically oriented decision making, which emphasizes consistency at a fairly high level of abstraction, and pragmatic decision making, which is sensitive to the characteristics of each case. There are two possible reactions: one could give family physicians training in moral theory in an attempt to make their decisions more consistent, or

one could reject moral theory as too abstract, and therefore too insensitive to the complexities of cases, and adopt a more contextual approach. We favour the latter alternative. Although we do not regard family physicians as morally infallible, we do believe that their collective judgements have some inherent value. Ethical decision making in medicine is, in our view, more likely to be understood by investigating the evidence that these collective judgements provide.

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Active abdominal tuberculosis in Canada in 1970–81

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We reviewed all 341 cases of abdominal tuberculosis reported in Canada between 1970 and 1981. Over the study period abdominal tuberculosis accounted for a stable proportion (0.8%) of all reported cases of tuberculosis in Canada. Its incidence declined steadily. It was more common in women, in native Indians and in people born in Asia. Detailed records of the 55 cases reported to Statistics Canada from British Columbia and of an additional 31 cases not reported to Statistics Canada (usually because they involved concomitant disease elsewhere, notably the lungs) were studied. Five of the 55 cases reported to Statistics Canada had been reported incorrectly. Of the 81 cases in British Columbia 51% involved peritonitis, 21% ileocecal disease, 20% anorectal disease, 10% mesenteric lymphadenitis, 1% disease of the sigmoid colon and 1% disease of the liver. The rate of bacteriologic confirmation was low (51%).

Revue de la totalité des 341 cas de tuberculose abdominale déclarés au Canada entre 1970 et 1981. Si durant ce temps cette catégorie représente de façon stable les 0,8% de tous les cas déclarés de tuberculose, sa fréquence absolue décline de façon constante. Elle est le plus élevée chez les femmes, les Indiens autochtones et les Asiatiques de naissance. Les 50 cas déclarés en Colombie-britannique à Statistique Canada, exclusion faite de 5 cas déclarés à tort, et 31 cas non déclarés comme tels (habituellement en raison de la présence d'un processus tuberculeux extra-abdominal, notamment pulmonaire) font l'objet d'une étude particulière. La maladie siège au péritoine (51% de ces 81 cas), à la région iléo-coecale (21%) ou ano-rectale (20%), aux ganglions mésentériques (10%), au sigmoïde (1%) et au foie (1%). Le taux de confirmation bactériologique est bas (51%).

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The incidence of tuberculosis in all its forms is steadily declining in Canada, although globally tuberculosis remains a considerable public health problem.[1] As the disease becomes increasingly uncommon, clinical experience with the more unusual forms wanes, and physicians