Nutritional advice in Canadian family practice

Walter W Rosser

ABSTRACT The National Health Survey in Canada found that 40% of adults and teenagers are overweight or suffer from poor nutrition. Frail elderly, in particular, are at high risk for poor nutrition. Medical students and family medicine residents have some exposure to nutritional issues during their training. A national survey of family doctors found that only 16% had direct access to a dietitian in their practice. Canada’s dietitians usually work in hospitals or for public health departments in the universally accessible publicly funded health care system. A whole community strategy to review guidelines, select the most evidence-based guidelines on any topic, and disseminate them to more than 50 communities is described. This strategy is expected to result in family physicians following evidence-based guidelines more closely than in the past. If this plan is effective, there should be a measurable improvement in the province’s health and nutritional status. Am J Clin Nutr 2003;77(suppl):1011S–5S.

KEY WORDS Canadian medical system, physician-patient relationship, guideline scoring program, Canada’s Food Guide to Healthy Eating

INTRODUCTION During their undergraduate medical education, medical students in Canada’s 16 medical schools receive relatively little instruction about nutrition and how to provide dietary advice to patients. Most of the 16 university-based postgraduate family medicine residency programs have dietitians working in the hospital-based teaching practices who provide residents with some detailed information about disease-specific dietary counseling. A national survey of every family physician in Canada found 11177 worked in an office or community clinic. Of this group, only 16.6% indicated that a dietitian was present at some time during the week in the practice (1). To provide the readers with an idea of how much dietitian support and evidence-based advice is available for family doctors to use in practice, this article will describe the structure of the Canadian health care system and where the nutritional advice is provided for patients within the system. The patient-centered approach to family medicine will be described. The emerging role of the family doctor as an information manager has led to a program to identify the best clinical practice guidelines that are evidence-based. A system to disseminate the highest-ranking guidelines to practitioners in the community and then measure the impact on physician behavior will be described. It remains to be determined whether this approach will improve the quality of the evidence-based dietary advice received by the Canadian population.

THE CANADIAN HEALTH CARE SYSTEM The Canadian health care system has some unique features. It is a first dollar (no copayment), universal, publicly funded system, where legislation makes it illegal for physicians or hospitals to charge patients more than the government pays for almost all health care services. All of the universities and hospitals are publicly owned and are controlled by the government. There are exactly enough postgraduate training positions that lead to specialties to suit the number of graduates of medical schools. Postgraduate training programs by specialty are available according to the perceived need determined by the government. They are designed to maintain the ratio of 50% specialists and 50% family physicians, which is the current makeup of the physician workforce. Health care is the responsibility of each of the 10 provinces in Canada, with the federal government providing considerable resources to provinces, which must follow a set of principles maintaining a universally accessible publicly funded system (2).

Family doctors in Canada have a wide scope of practice. Rural and remote areas of the country have widely scattered and small population centers that can justify having only a few family doctors to provide health care in a large geographic area. Family doctors in these regions are expected to provide emergency, in-hospital, and full obstetric care. In urban areas, family doctors are expected to provide care for their patients in the hospital, working collaboratively with specialists. In some provinces more than half the births are attended by family physicians with specialists consulted for complicated deliveries. In the most remote areas, sometimes several hundred kilometers from the nearest major hospital, family physicians may be trained to provide anesthesia services as well as perform emergency cesarean deliveries.

Every region of the country has a public health department, separate from the family physicians, that is responsible for population health care. Every health department employs one or more dietitians to provide dietary advice to the population in that region. The dietitians may run group classes for specific conditions such as diabetes but more often provide programs for the entire community. They do not usually provide individual dietary counseling.

The federal government supports dietary counseling and advice in 2 ways. First, it provides provinces, health departments, and individual family physicians with well-developed guides such as Canada’s Food Guide to Healthy Eating, which can be
distributed to individuals and is supported by posters (Figure 1) and television advertising (3). The federal government also conducts a national health survey once every 5 y. The surveys provide detailed information to each municipality or region on the health status of its population (4). The most recent survey found that more than 40% of adults were overweight and sedentary. Women in their 20s and more than 40% of adolescents were found to have poor nutritional habits. Also at high risk for poor nutrition are the elderly, especially the frail elderly (over 85), which is the fastest-growing group in society.

Each regional health department uses Canada Health Survey information to develop its own innovative programs to address the regional needs. The federal government in the past 5 y contributed funding to 64 of these local programs. An assessment of these programs on nutrition found that only 13 of the 64 programs met basic evaluation criteria that demonstrated a significant impact on the population identified as high risk (5). The most common reason for not meeting criteria was a lack of capacity to properly evaluate complex community interventions. These programs were run by regional health units and did not usually involve family physicians. Some of the programs did invite referrals from family physicians. Most programs are provided by the public system. There is a small role for private nutritional counseling in Canada, as nutritional advice is considered to be a service provided by the publicly funded system. However, the public seems willing to pay for commercially run programs such as Weight Watchers. In large urban areas, dietitians have “private” nutritional counseling services. The patient must pay for these sessions, and relatively few people are prepared to do this when publicly funded programs are available. Some insurance programs provided by employers cover funding for nutritionist visits.

THE PHYSICIAN-PATIENT RELATIONSHIP

Canada’s physician education programs emphasize building a trusting physician-patient relationship. The concept is based on over 20 y of research conducted at the University of Western Ontario (6). The research has found that the more trust-based and patient-centered an encounter between physician and patient, the better the outcome for the patient (7). These studies have found that if the patients feel that they are involved in any decision making and the physicians and patients function as partners, prescribing outcomes or the likelihood of following dietary advice is improved as the level of patient-centered interaction increases (8). Within the partnership concept, the physicians are seen as bringing knowledge and diagnostic skills that are evidence based, and the patients bring their own beliefs and values and the context in which they live; ideally, the 2 find “common ground” on which to base the final decision for action (9). This strategy has been formalized in several ways, including one that I have published (10).

The health care system for the 12 million residents of the province of Ontario is now being reorganized to convert from a fee-for-service physician payment system to a system where patients access all their services through their chosen physician. Part of the rationale for this change is to allow strengthening of the physician-patient relationship because this approach to family practice creates a more efficient and effective health care system (11). This strategy should improve the outcomes from dietary advice or counseling. Presently, the fee schedule does provide financial funding for 2 half-hour sessions per year of dietary counseling by family physicians. However, medical schools provide relatively little education on nutritional issues. Most medical schools provide a few hours of instruction often associated with specific disorders. Many family physicians must satisfactorily complete 2 y of family medicine education that includes some exposure to diet counseling.

Implicit in this model is the fact that the physician will be knowledgeable about the latest and best available evidence-based information. In an environment where 6000 new articles a week are published in the medical literature and over 1000 new guidelines are published annually, it is impossible for busy family physicians to determine what they will use in their practice (12, 13). Several medical associations and other groups are attempting to assist the family physician with this “information overload.” An excellent example are the “letters” produced by the Dutch Association of Home Doctors (14). If the family doctor’s role is to be the “clearinghouse” for the masses of medical information in the medical literature and on the Internet, then the physician needs skills and assistance in information management. The family physician will need to become what is called by Slawson et al (15) an “information master.” At present, there is sporadic training available in these skills, but the time is rapidly approaching when these skills will be essential for every family doctor.

WHOLE COMMUNITY PROGRAMS TO CHANGE PHYSICIAN BEHAVIOR

In the Canadian environment, there are few systems to provide incentives or disincentives to physicians to provide preventive care, nutritional advice, or counseling. In the United Kingdom, prescribing can be monitored and incentives provided to improve the delivery of preventive services (16). In the absence of these systems in Canada, improving the quality of care in the community requires persuading the doctors and the community that the new way is better. In 1995 a set of guidelines to improve the prescribing of antibiotics in the province of Ontario was produced in an evidence-based way by a large panel of experts (17). The guidelines, distributed to every physician and pharmacist in the province, were well received. Many health professionals reported that they found the guidelines very helpful and claimed to use them extensively. However, measuring the change in prescribing patterns in the province using the data from a provincewide drug benefit plan demonstrated no significant changes. This frustrated a family physician who worked in a community with one hospital, 4 pharmacies, and a population of about 30000. He designed a “whole community” program for increasing awareness of the guidelines to reduce use of antibiotics for colds, sore throats, and otitis media. The program consisted of an interactive educational session for all physicians and pharmacists in the community, sponsorship of educational programs for the public and in the schools by the public health department, and coverage in the newspapers. The mayor was persuaded to have 2 town hall meetings on how to reduce the use of antibiotics, and all the pharmacists pinned paper notes on each prescription that told people what to do to avoid antibiotic use. The family physicians were provided with tear-off nonprescription pads of instructions to give patients instead of the antibiotic prescription. The result of this program was a reduction of antibiotic prescribing in the community by 12% while the whole

Figure 1

The health care system for the 12 million residents of the province of Ontario is now being reorganized to convert from a fee-for-service physician payment system to a system where patients access all their services through their chosen physician. Part of the rationale for this change is to allow strengthening of the physician-patient relationship because this approach to family practice creates a more efficient and effective health care system (11). This strategy should improve the outcomes from dietary advice or counseling. Presently, the fee schedule does provide financial funding for 2 half-hour sessions per year of dietary counseling by family physicians. However, medical schools provide relatively little education on nutritional issues. Most medical schools provide a few hours of instruction often associated with specific disorders. Many family physicians must satisfactorily complete 2 y of family medicine education that includes some exposure to diet counseling.

Implicit in this model is the fact that the physician will be knowledgeable about the latest and best available evidence-based information. In an environment where 6000 new articles a week are published in the medical literature and over 1000 new guidelines are published annually, it is impossible for busy family physicians to determine what they will use in their practice (12, 13). Several medical associations and other groups are attempting to assist the family physician with this “information overload.” An excellent example are the “letters” produced by the Dutch Association of Home Doctors (14). If the family doctor’s role is to be the “clearinghouse” for the masses of medical information in the medical literature and on the Internet, then the physician needs skills and assistance in information management. The family physician will need to become what is called by Slawson et al (15) an “information master.” At present, there is sporadic training available in these skills, but the time is rapidly approaching when these skills will be essential for every family doctor.

WHOLE COMMUNITY PROGRAMS TO CHANGE PHYSICIAN BEHAVIOR

In the Canadian environment, there are few systems to provide incentives or disincentives to physicians to provide preventive care, nutritional advice, or counseling. In the United Kingdom, prescribing can be monitored and incentives provided to improve the delivery of preventive services (16). In the absence of these systems in Canada, improving the quality of care in the community requires persuading the doctors and the community that the new way is better. In 1995 a set of guidelines to improve the prescribing of antibiotics in the province of Ontario was produced in an evidence-based way by a large panel of experts (17). The guidelines, distributed to every physician and pharmacist in the province, were well received. Many health professionals reported that they found the guidelines very helpful and claimed to use them extensively. However, measuring the change in prescribing patterns in the province using the data from a provincewide drug benefit plan demonstrated no significant changes. This frustrated a family physician who worked in a community with one hospital, 4 pharmacies, and a population of about 30000. He designed a “whole community” program for increasing awareness of the guidelines to reduce use of antibiotics for colds, sore throats, and otitis media. The program consisted of an interactive educational session for all physicians and pharmacists in the community, sponsorship of educational programs for the public and in the schools by the public health department, and coverage in the newspapers. The mayor was persuaded to have 2 town hall meetings on how to reduce the use of antibiotics, and all the pharmacists pinned paper notes on each prescription that told people what to do to avoid antibiotic use. The family physicians were provided with tear-off nonprescription pads of instructions to give patients instead of the antibiotic prescription. The result of this program was a reduction of antibiotic prescribing in the community by 12% while the whole
FIGURE 1. An example of a poster illustrating Canada’s Food Guide to Healthy Eating.
province increased use by 4%. A further benefit was a 30% change from physicians using second- or third-choice antibiotics (usually newer, broader spectrum, and more expensive) to first-line antibiotics (18).

This voluntary program was then tested in a large urban area, and in the third round volunteer physicians from 8 communities were trained to organize their communities in a similar way. Currently, the province has 50 communities where physicians have been trained to organize a whole community program. There is no specific infrastructure in each community to support this program. The programs depend on support from the municipality and the public health department and the goodwill of community physicians.

Communities in other parts of Canada, in the United States, and in Belgium are preparing to adopt this strategy. It is voluntary, and the way antibiotics are used is integrated into the daily work of the family physician.

GUIDELINE SCORING PROGRAM

As previously discussed, there is a great need for objective groups not influenced by governments, pharmaceutical companies, or professional associations to produce useful summaries of the medical literature that are evidence based and easily usable by family physicians. Guidelines should be an ideal solution for family physicians dealing with information overload. However, each topic has so many guidelines, most of which have conflicting conclusions and recommendations, that family physicians have stopped using guidelines. A partnership formed by the medical association of the province and the provincial government has developed a method of scoring guidelines. A topic is chosen and 3 trained, community-based family doctors score the guideline according to a method developed by Cluzeau et al in the United Kingdom (19). Guidelines are scored on 36 different aspects of how they were produced and the quality of evidence they used. The scores of the 3 independent reviews are reconciled and all the guidelines on a topic are rank ordered. The 23 guidelines on asthma, for example, were found by literature searches and discussion with experts to confirm that all were included. Each guideline is assigned a numeric score and then granted 4 apples if excellent, 3 apples if very good, and so on down to none. Presently there are more than 70 physicians participating, with 50 topics now on the website and over 100 topics in various states of review. Many of these topics (eg, diagnosis, hypertension, hyperlipidemia) have specific dietary advice. Once a guideline is found to be at the top of the list it may be necessary to produce a one-page concise summary of the recommendations (20). The objective is that the physician can find the required information within 30 s while examining the patient. To facilitate this process, all summaries of guidelines are being adapted to handheld computer format, so the physician can access them rapidly. After the process is established, guidelines will be updated and new reviews will occur as frequently as changing recommendations demand. There will also be a patient education version of each of the best guidelines so that the same quality of information will be available to the public on the Web as for the physician.

The organization sponsoring this program brought the 5 medical schools’ continuing medical education programs together so that they will reinforce use of the best guidelines in all their educational programs. The whole community program as it evolves with government support will become a conduit for disseminating suitable guidelines. The guideline advisory committee is working with various associations, the College of Family Physicians, and other groups to create a single message about which guidelines to use. Because all medical visits to doctors or hospitals and a large percentage of prescriptions are centrally recorded in the province, it will be feasible to measure the impact of these programs on the health care delivered to the citizens of the province. I invite you to examine the website: www.gacg.guidelines.ca.

DISEASE-SPECIFIC ADVICE

One of the first guidelines assessed was on the topic of diabetes. The guidelines produced in 1999 by the Canadian Diabetes Association achieved the highest score (21), a 4-apple ranking, indicating that it was of excellent evidence-based quality. These guidelines provide evidence-based advice for diabetic diets and are integrated with Canada’s Food Guide to Healthy Eating. The family physician can access this information from the website. Almost every hospital has a dietitian who provides diet education programs. Because of the prevalence of diabetes, most hospitals have special educational programs for diabetic patients to which family physicians can refer patients. These programs will be encouraged to use the same guideline, which can also be accessed by the patient via the Internet. We believe that this type of integrated strategy should result in a relatively constant message from health professionals and patients that is based on the best available evidence. This should help family physicians move much closer to becoming information masters. The strategy should improve the quality of health care and ultimately the health status of the Ontario population. Dietary advice will be integrated into many of the disease-specific strategies, because guidelines on any disease involving dietary issues will include evidence-based information. As evidence is forthcoming about more effective dietary and exercise counseling strategies by having them disseminated in this way, the lag time between new evidence being available and its transfer to patients in the community should be reduced.

CONCLUSION

The present approach to providing evidence-based nutritional advice to the population in Canada could stand improvement and strengthening. Like family doctors in other countries, family doctors in Canada have relatively little specific training in the provision of dietary advice in either disease-specific or prevention programs. There are dietitians available for both general and specific diet education programs. The Canadian system’s emphasis on supporting and strengthening the physician-patient relationship should improve the impact of any dietary advice program. The whole community approach to dissemination of guidelines combined with the guideline assessment strategy for determining the best available evidence should improve the quality of information used by physicians and the public as well as all other health care providers. This coordinated program providing a common message has a reasonable chance of improving the overall health status of the population. The concepts are congruent with the evidence of how to manage a smoking cessation program that will make a difference (22). We hope that during the next 5–10 y there will be significant improvement of the population’s nutritional status.
The author acknowledges Elizabeth Heeney and Janet Rosser for their assistance in editing the manuscript and providing nutrition information.

REFERENCES