



Access to medical and health information in the developing world: an essential tool for change in medical education

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Medical educators around the world have been challenged to accept a key role in managing change in health care delivery, but often they have been denied the information tools to do the job.

Although physicians in developed countries may feel overwhelmed by the volume of available information that is relevant to their missions in education, research and service, most doctors in developing countries would not understand such a complaint. The concern in the developing world, where at least two-thirds of future physicians are being educated, is the lack of access to current scientific data to help in medical decision-making. Library resources in these settings are usually scarce, inconsistent, incompletely catalogued or nonexistent. How can neophyte health care professionals in developing countries learn to make choices in clinical practice without supporting information and resources? How can the advantages of evidence-based medicine be promoted when the relevant evidence is not available?

Some would argue that the Internet will soon make information available around the globe to support medical decision-making. In fact, a recent survey by the Canadian Medical Association (CMA)¹ showed that 51% of Canadian physicians use email and 47% have access to the Internet and are able to search bibliographic databases. These statistics are encouraging, but they also indicate the still-limited penetration of this technology even in a highly developed country where such services are readily available at relatively low cost. The situation in developing countries is vastly different, beginning with the remote likelihood that a physician will have access to a computer, even within his or her home institution.

For the foreseeable future, physicians in developing countries will continue to rely on print media to satisfy their medical information needs. For this reason the *Canadian Medical Association Journal (CMAJ)* recently asked Canadian physicians to suggest institutions in developing countries worthy of receiving *CMAJ* and the *Canadian Journal of Surgery (CJS)* (see, for example, *CMAJ* 159;4:328). The response was gratifying, and the support-

ing nomination for one of the subscription donations appears on page 13 of this issue.² Yet the nominations that were received probably represent only the tip of a very large iceberg.

The concepts embodied by this program should not stop with the delivery of medical journals to libraries. Canada has unparalleled experience in creating practice guidelines; in developing, refining and applying accreditation standards in education and clinical care; and in using information technology for distance education and in support of clinical decision-making. Canadian medical schools and the CMA have been world leaders in fostering the creation of frameworks for lifelong professional development and self-directed learning. We have a collective responsibility to explore the ways in which this established Canadian expertise can be used to benefit health care and the education of health care professionals internationally. Achievement of such an ideal is likely to depend heavily on the dissemination of information resources such as *CMAJ* and *CJS* and on the promotion of more comprehensive and effective use of information technology.³,⁴

Similarly, the World Medical Association and its component medical associations in developed countries should undertake to deliver information resources to institutions in developing countries to improve medical education and professional development infrastructures. Such an initiative would include an ongoing commitment to deliver Internet resources such as *CMA Online* to a world where the information to support practice decisions and optimal continuing professional development is essential.

The program to deliver *CMAJ* and *CJS* to libraries in developing countries is an important first step. We urge all members of the CMA to consider the information needs of developing countries. The CMA Publications Committee would like to hear from you if you have views concerning the pilot project described on page 13. We would be happy to convey any calls for expanded support to the Canadian Medical Foundation and would be pleased to hear from advocates for greater



World Medical Association involvement in this area.

In another age, Sir William Osler said "to study medicine without books is to sail an uncharted sea." To put this in a 21st century context, we could say that to offer health care without full access to the information required for clinical decisions is to be forever at sea.

Part of the responsibility of having a high standard of medical professionalism, as we do in Canada, is to share medical and scientific information, knowledge and skills in medical informatics with colleagues in the developing world. We hope that the initiative announced in this issue will enjoy widespread support.

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Competing interests: None declared.

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Compliance in hypertension: Why don't patients take their pills?

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There is no longer any doubt that treating hypertensive patients can reduce the incidence of heart attack and stroke. One would think that by now most Canadians with hypertension would be normotensive because of appropriate drug therapy. However, this presumption was dispelled by the recently published Canadian Heart Health Survey.¹ The survey found that only 16% of adult Canadians with hypertension were receiving drug therapy and had normal blood pressure; an additional 23% were receiving treatment but remained hypertensive. The remainder were either untreated or unaware of their hypertension. Can these findings really be true, or was the survey in some way flawed? As much as one would like to attribute these negative findings to systematic errors in methodology, the 2 papers by Caro and colleagues^{2,3} appearing in this issue (pages 31 and 41) confirm the findings of the Canadian Heart Health Survey. These authors report that many residents of Saskatchewan with a diagnosis of hypertension discontinued antihypertensive medication within 6 months of initiating therapy, and persistence with antihypertensive therapy declined over the next 4 years.

No doubt many factors contribute to poor compliance with long-term antihypertensive therapy. Many patients have negative attitudes toward taking medication, especially if they "feel well."⁴ The almost-daily reports in the media on the possible adverse effects of drugs foster these

negative beliefs. As well, physicians may look more favourably on newer products, expecting them to be more effective and better tolerated than their predecessors. As a result, both patients and physicians more frequently attribute side effects to older compounds, such as diuretics and β -blockers. Then there are pharmacists who, as part of the counselling process, give patients lists of potential adverse effects of any medication they are about to receive. At this point, it may seem surprising that so many patients actually *do* take their medications as prescribed!

Several years ago, my colleagues and I had the opportunity to observe patient and physician behaviour in a multicentre study⁵ comparing the effects of ASA and placebo in patients with unstable angina. At 2 centres, participants and their family physicians were specifically told about the potential gastrointestinal side effects of ASA, whereas participants at a third centre were not. Six times as many patients in the group informed about possible side effects withdrew from the study because of minor gastrointestinal complaints, usually after consulting their family physicians, who confirmed the association between the study drug (presumed to be ASA) and the symptom. However, only 56% of the 200 patients who reported gastrointestinal symptoms were actually taking aspirin. Presumably, this behaviour is not limited to ASA, so it is not surprising that many patients report side effects while receiving antihypertensive therapy, especially when taking