

The Canadian Hypertension Education Program (CHEP) recommendations: launching a new series

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This issue of *CMAJ* sees the launch of a 6-part series designed by and for primary care physicians that highlights common problems in and solutions for managing hypertension (see page 480).¹ Given the plethora of hypertension guidelines both in Canada and abroad and the frequency with which hypertension is the focus of Continuing Medical Education (CME) events and pharmaceutical representative visits, it is not unreasonable to ask these 4 questions:

Why devote a series in *CMAJ* to hypertension?

Although most medical papers start by describing the importance of that disease or topic, statements about the importance of hypertension are not hyperbole. Worldwide, hypertension is a key modifiable risk factor for myocardial infarction² and the third leading risk factor for death and disability;³ optimal control of blood pressure in people with hypertension could prevent almost half of all atherosclerotic cardiovascular events in North America.⁴ Over one-fifth of Canadians have hypertension;⁵ a Canadian 55 years old with normal blood pressure has a risk of hypertension before age 80 of over 90%.⁶ It remains one of the most common reasons for office visits, and over 4 million prescriptions for antihypertensive agents are written every month in Canada.⁷

Why was the Canadian Hypertension Education Program (CHEP) developed?

Despite its epidemiologic import, hypertension management is often suboptimal: substantial proportions of patients are unaware they have hypertension (42% in the most recent Canadian Heart Health Survey [CHHS]), receive no treatment for their hypertension (19% in the CHHS), or have hypertension that is uncontrolled despite receiving treatment (23% in the CHHS).⁵ Such findings are not unique to Canada.⁸ Yet, although hypertension guidelines have been in existence and updated in this country for over 20 years, neither students of the guideline literature nor clinicians would be surprised to hear that practice patterns are frequently incongruent with guidelines even when clinicians are aware of and profess agreement with the recommendations.⁹⁻¹¹ Indeed, it is well recognized that merely publishing a guideline and relying on passive dissemination through journals, mail-outs and CME lectures is unlikely to change practice.¹² Thus,

CHEP was initiated in 1999 as part of a national strategic plan to improve hypertension management in Canada.

What is CHEP?

CHEP is a formal group consisting of over 70 unpaid volunteers from across Canada who are experts in hypertension (see the online appendix at www.cmaj.ca/cgi/content/full/173/5/508/DC1 for a list of all members as of March 2005). The group includes family physicians, specialist physicians, pharmacists, clinical pharmacologists, clinical epidemiologists, nurses, physiatrists, an exercise physiologist, a psychologist and a biostatistician. Members come from university and community settings and share an interest in hypertension and cardiovascular disease prevention. CHEP is sponsored by the Canadian Hypertension Society, the Canadian Coalition for High Blood Pressure Prevention and Control, the College of Family Physicians of Canada, the Heart and Stroke Foundation of Canada and the Public Health Agency of Canada.¹³ Although numerous pharmaceutical companies have provided unrestricted educational grants to CHEP (see the online appendix for a list) to defray the costs of the medical librarians, literature searches, annual consensus conferences and implementation tools, pharmaceutical company representatives and executives have no input into the literature searches, the interpretation of the evidence, the generation and approval of the recommendations, nor the writing and approval of the manuscripts. They do not attend the consensus conferences and do not receive copies of the recommendations before their public presentation at the Canadian Cardiovascular Congress every October.

CHEP consists of 3 interrelated programs. First, CHEP generates evidence-based hypertension management recommendations that are updated annually (in the United States, United Kingdom and Europe, hypertension guidelines are usually updated every 5-7 years). These recommendations are based on high-quality studies identified by literature reviews conducted by a Cochrane librarian and interpreted by content experts (see the online appendix for a list of members responsible for each subgroup). The conclusions derived are independently validated by clinical epidemiologists applying a priori standardized rules of evidence. The recommendations and their scientific rationale are published annually in the *Canadian Journal of Cardiology*.

Second, after the recommendations are finalized each November (after drafts have been presented and feedback solicited at an open session at the Canadian Cardiovascular Congress), an extensive process to publicize and actively market the recommendations begins. The CHEP implementation process uses traditional guideline dissemination strategies (including journal publication; mailing of information pamphlets, wall posters and pocket cards; CME lectures; and Internet posting of a slide kit containing the recommendations [www.hypertension.ca]) but also includes more active strategies such as local opinion leader-run small group workshops and one-on-one detailing about the recommendations by trained educators with practising clinicians.

Third, CHEP includes an evaluative component to monitor for changes in hypertension management to determine whether the implementation processes are working. Until the next national health survey of cardiovascular risk factors begins in 2006 (which, akin to the 1985–1992 Canadian Heart Health Study, will incorporate blood pressure measurements among randomly selected adults), the best evidence on the impact of CHEP are 2 studies examining trends in antihypertensive prescribing in Canada over the past decade. In the first, analysis of the IMS CompuScript database from 1996 to 2001 demonstrated substantial and statistically significant increases in prescribing rates for all CHEP-recommended antihypertensive drug classes after the CHEP program was introduced.⁷ In the second, analyses of linked Ontario administrative databases revealed that, even after adjusting for changes in demographic characteristics, prescriptions for hypertensive patients had increased by one-third, discontinuation rates had declined by nearly half, and patients starting therapy were nearly twice as likely to be given multiple antihypertensive drugs in 2002 than in 1994.¹⁴ These results offer encouragement that pharmacologic management of hypertension has improved in Canada over the past decade. Whether this translates into better blood pressure control and fewer clinical events remains to be seen.

What will this series do?

This summary series is not intended to provide a comprehensive review of the literature in each of the areas covered. Rather, this series, which is written by CHEP leaders, focuses on a few key areas: updated clinical approaches to diagnosing hypertension, the importance of targeting global atherosclerotic risk, the primacy of lifestyle modification in the approach to any patient with elevated blood pressure, therapy for patients with uncomplicated hypertension, and management for those with concomitant diabetes mellitus or cardiac disease.

As clinicians, each of us treats hypertension cases, and each of us has experienced the frustrations that arise when national recommendations do not seem to fit the specifics of particular patients. Although it is impossible to cover all of the eventualities that arise in clinical practice, it is our hope that this series will answer the most common questions and help make the 2005 CHEP recommendations^{15,16} accessible for our readers.

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