

Assessing and managing hypertension



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One cannot underestimate the importance of hypertension across the breadth of clinical medicine. Hypertension affects 20% of the population and the risk of developing hypertension increases with age to such an extent that the lifetime (cumulative) risk for middle-aged individuals is 90%. The consequences of hypertension include coronary artery disease, stroke, heart failure, and chronic kidney disease. Fortunately, research in vascular biology has identified the mechanisms of vascular change that lead to hypertension and its consequences, and our understanding of CNS receptors and endogenous regulators of blood pressure has allowed us to develop effective antihypertensive drugs and other therapies. Studies of vascular stiffness are also unraveling the causes and consequences of hypertension, and device- and procedure-based therapies are currently under development.

Recently, the assessment and management of hypertension has focused on accurate blood pressure measurement, appropriate nonpharmacological (lifestyle) strategies for prevention and control, how to attain target blood pressures that will reduce the risk of complications and minimize adverse effects, and how to assess and manage

resistant hypertension. Each of these topics is dealt with in this theme issue, which was inspired in part by the 23rd Scientific Meeting of the International Society of Hypertension, held in Vancouver in the fall of 2010. During the meeting outstanding research was presented and a conference statement was developed. In the light of provincial efforts to prevent and manage chronic disease, it is worth considering some of the goals in this statement, which emphasize the need to mobilize resources that focus on research, knowledge transfer, and health care delivery. Regarding the last two areas, some of the goals in the statement bear repeating:

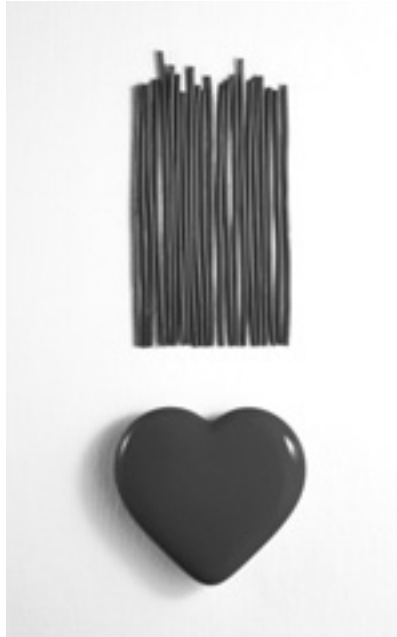
- Supporting and sharing best practices and culturally appropriate strategies among developing and developed countries throughout the globe.

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- Developing healthy public policies to create environments supportive of the prevention and control of hypertension in the context of improving overall health.
- Enhancing best approaches for health care delivery to prevent and control hypertension, from children to the elderly, and promoting long-term adherence to established lifestyle and medical management of hypertension.
- Developing effective community-based programs (e.g., primary care, workplace, school-based) and the infrastructure necessary to prevent and control hypertension.
- Building knowledge and capacity through implementing appropriate multidisciplinary education, professional development programs, and public education.
- Facilitating research that supports the implementation of evidence-based strategies to improve knowledge transfer and more rapidly bring new discoveries to clinical and population health arenas.¹

Physicians practising today in our multicultural society must treat people from many different backgrounds. The beliefs and past experiences of these patients can produce poor adherence to therapies based on antihypertensive drugs, which may be perceived as “too powerful” or “less dependable” than traditional treatments or herbal preparations. Although printed patient information is available in different languages, the clinician often shoulders the responsibility for dealing with cultural issues.

Recent innovations in family practice and the compensation provided for physicians managing patients with



chronic conditions such as hypertension have been welcome changes for patient care in British Columbia. There is, however, much more that can and should be done to develop effective community-based programs and the infrastructure necessary to prevent and control hypertension. Managing hypertension control requires a concerted effort by primary care physicians and specialists to optimize nonpharmacological and pharmacological therapy and to identify and manage patients with resistant hypertension. Hypertension should not be viewed in isolation but in the context of an overall strategy for cardiovascular risk reduction.

There should be improved capacity to implement appropriate multidisciplinary education, professional development programs, and public education for cardiovascular risk reduction. Rapid translation of cardiovascular risk research into community practice

needs to occur. There is also a need to facilitate research that supports the implementation of evidence-based strategies to improve knowledge transfer and bring new discoveries in cardiovascular risk reduction to clinical and population health arenas.

The concept of “community readiness” has been proposed by social scientists to describe the preparedness of a community to take action on a problem and to develop strategies to deal effectively with the problem. As a clinician whose hospital rounds involve seeing patients with myocardial infarction, stroke, or heart failure, I often hear the referring physician or house staff begin the history with “This x-year-old hypertensive patient presented with...” We could reduce the number of patients admitted to hospital with disabling cardiovascular conditions through concerted efforts by communities and their leaders, in collaboration with physicians, health authorities, and governments, to prevent and control hypertension and other cardiovascular risk factors. As the Vancouver statement concludes, “Let us work together to achieve global cardiovascular risk reduction.”¹

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Reference

1. Vancouver Hypertension 2010. Global cardiovascular risk reduction statement: Call for collaborative action. Vancouver, 29 September 2010. Accessed 13 September 2012. www.hypertension.ca/policies.