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Editorial

Ushering in a New Era of Hypertension Canada Guidelines: A Roadmap of What Lies Ahead

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Hypertension is a global health problem with an estimated prevalence of 32% worldwide and increasing.[1] In fact, hypertension is the most common modifiable risk factor for cardiovascular disease and mortality.[2] In Canada, hypertension treatment and control rates, although historically high relative to that in other countries, have declined over recent years, particularly among women.[3,4] The hypertension-attributable health care costs in Canada are steep; estimated at > CAD$20 billion in 2020.[5] Improving the awareness, treatment, and control of hypertension at the population level requires a multipronged approach including health policy changes, public health education, enhanced access to primary care, promotion of preventive health measures, and effective clinical practice guidelines to inform optimal care.[6]

Canada boasts a rich history of innovation in hypertension. The Canadian Hypertension Education Program was established in 1999 and later morphed into Hypertension Canada, which remains the country's leading nonprofit organization dedicated solely to the prevention and control of hypertension and its complications.[7,8] One of its main roles is to produce the Hypertension Canada guidelines, the nation's clinical practice guidelines for the diagnosis, treatment, and control of hypertension which is fueled by a professional volunteer network of multidisciplinary hypertension experts and primary care professionals.[9] Previously, the guidelines were updated on an annual basis, formulated through systematic reviews across more than 20 separate expert subgroups on a wide array of hypertension-related topics.[10] Because of concern that this siloed approach might result in internal inconsistencies and unclear recommendations, a different approach involving narrowing the organizational structure to a small number of thematic sections was adopted to formulate the most recent guidelines in 2020.[9] Because of a number of issues including an overall organizational restructure within Hypertension Canada along with the COVID-19 pandemic, the guidelines have not been updated since 2020.

We view this lapse in time as a unique opportunity to reimagine what the guidelines should look like to best achieve the organization's overarching mission of "advancing the health of Canadians by enabling the detection, prevention, and control of high blood pressure and its complications." Because hypertension is a population-wide problem, we believe that a multifaceted approach is essential to maximize the effect of the guidelines. A single all-encompassing set of recommendations might fail to optimally serve many relevant parties. Informal feedback and an open forum session with primary care providers revealed that the comprehensive guidelines might be viewed as overwhelmingly complex and cumbersome to digest and implement into busy day-to-day clinical practice. This reality becomes even more evident for patients who might view the guidelines as not only overwhelming but also written in medical jargon that many find difficult to understand. Moreover, the previous strategy of updating all hypertension guidelines on an annual basis might lead to inefficiency, redundancy, and burnout among the multidisciplinary experts who formulate the recommendations. By focusing on specific hypertension themes upon which new practice-changing evidence becomes available, or those that are of high priority to our members, we might not only improve efficiency of guideline creation but also produce higher quality recommendations on the basis of the most

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up-to-date literature. In turn, we hope this will result in greater uptake of our recommendations.

We also recognize that trust in our guidelines is paramount, not only from health care professionals but also from patients and the public. First, we have chosen to work closely with a methodologist and use what has become "the industry standard" in rating the certainty of evidence in our knowledge synthesis process: Grading of Recommendations Assessment, Development and Evaluation (GRADE).[11] The appeal of GRADE is that it rates the quality of available evidence (high, moderate, low, or very low) and communicates the strength of recommendations (strong or weak) in a clear and systematic fashion as its framework is explicit, comprehensive, transparent, and pragmatic. Using GRADE will ensure that our guidelines are sound and of high quality according to the **A**ppraisal of **G**uidelines for **Re**search and **E**valuation (AGREE) II instrument.[12] Second, we recognize that hypertension management is a shared decision-making process between health care professionals, patients, families, and their communities. Therefore, we believe it imperative that these voices play a significant role in the formulation of our guidelines. We aim to involve patient partners and members of the public throughout all phases of the guideline development process. Third, we believe that the makeup of the committees that develop our guidelines is of utmost importance. This includes prioritizing a wide range of diversity among participants along with thoroughly vetting all potential conflicts of interest. We are currently building a central steering committee of multidisciplinary health care providers, patients, and public stakeholders that will oversee this process and ensure that these standards are upheld. Our vision for what is on the horizon for the reimagined Hypertension Canada guidelines is shown in Figure 1.

Step 1: Primary Care Guidelines

We believe that previous iterations of the hypertension guidelines have been viewed as overly complex by primary care providers, thereby limiting uptake. To better affect hypertension at the population level, we perceive primary care to be the most important first target within our reimagined guideline approach. We aim to establish simplified, straightforward, and evidence-based algorithms that outline best practices for diagnosing and treating hypertension in the primary care setting. To do so, we are using the HEARTS framework, an institutionalized model of care developed by the World Health Organization, which has been successfully implemented in a number of countries, resulting in improved hypertension control rates.[13-16] Although initially designed primarily for resource-limited settings, HEARTS is similarly applicable to high resource settings because it involves cost-effective evidence-based treatment algorithms that promote a uniform, standardized approach to optimizing hypertension control at the population level. HEARTS is not designed as a rigid protocol; rather, countries are encouraged to adapt the framework to meet their own specific needs. Bearing this in mind, we aim to adapt HEARTS to the Canadian context. We envision this including details on hypertension diagnosis, treatment targets, preferred medications, and when to refer to specialty care. In regard to providing medication recommendations, we will take into account which medications are readily available in Canada, affordable, and not subject to shortages while also having proven efficacy in achieving blood pressure control. Guideline development will be led by primary care clinicians (family physicians, nurses, and pharmacists) but will also incorporate input from hypertension specialists and patient partners. HEARTS also has a well established implementation policy to engage primary care.[17] We plan to make a preliminary version of these guidelines publicly available in late 2024 to invite stakeholder feedback. On the basis of this feedback, we aim to publish the finalized version in early 2025.

Step 2: Patient (Public) Guidelines

Although hypertension guidelines have traditionally been written with health care providers as the target audience, we believe that a patient-oriented set of recommendations might serve to further engage patients in taking control of their blood pressure. These guidelines will focus on patient education topics such as what hypertension is, how hypertension might affect their long-term health, how to measure blood pressure at home, lifestyle interventions, dietary suggestions, commonly used blood pressure medications, and strategies to maximize adherence. We will use the growing research and experiences from the Guidelines International Network Public Toolkit to develop these guidelines to ensure that they are free of medical jargon and readily understood by a lay audience.[18] As such, we will assemble a diverse group of patient partners to help lead this endeavor to develop the recommendations and provide feedback on the messaging and presentation. We foresee these guidelines as a future resource to be made widely

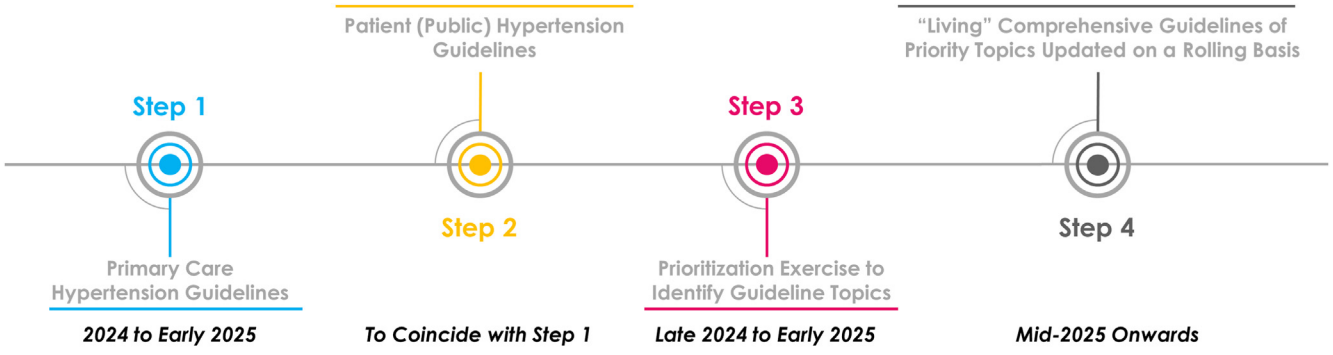

Figure 1. Reimagined Hypertension Canada guidelines—roadmap and timeline of deliverables.

available to the public to empower patients in making healthy blood pressure decisions. As with the primary care guidelines, we will build in a public review period to invite stakeholder feedback and follow similar policies to manage conflicts of interest. We aim to release the finalized patient-targeted hypertension guidelines concurrent with the primary care guidelines.

Step 3: Topic Prioritization Exercise

Although our initial focus will be on developing primary care and patient guidelines, we recognize the necessity of maintaining and updating a comprehensive set of guidelines because of the many nuances inherent to hypertension. Rather than pursuing an isolated set of all-encompassing guidelines as has been done in the past, we plan to develop a "living" set of comprehensive guidelines including priority topics that are updated on a rolling basis. We believe this will maximize the efficiency of the guideline-making process because we can identify specific "hot" topics within hypertension where there is new and emerging practice-changing literature and/or which are priority topics for our members. We will create a methods committee that will be charged with overseeing the process by which topics are identified and prioritized. We will also provide the opportunity for new topics of interest to be recommended by our members. This process will include a prioritization exercise in which we request feedback from Hypertension Canada members, health care providers, patients, and key stakeholders in a standardized process. We intend to embark on this prioritization process by late 2024 to early 2025.

Step 4: "Living" Comprehensive Guidelines

On the basis of the exercise described, we aim to identify specific topics, within our comprehensive guidelines, to prioritize for updated evidence synthesis. We will target multiple topics to review each year that, over time, will cover all topics included in the previous all-encompassing hypertension guidelines as well as newly identified topics. This strategy will allow for in-depth systematic reviews and knowledge synthesis on these individual topics, which will be housed and "live" on the Hypertension Canada Web site and be made available on a mobile digital application with time stamps acknowledging how up-to-date each topic is. These priority topics might range from blood pressure measurement to hypertension management among patients with specific comorbidities to secondary forms of hypertension to specific patient populations and beyond. We also hope to identify Canadian-specific challenges to address such as enhancing outreach and care to Indigenous communities and our rapidly growing immigrant and refugee populations. Subcommittees of members identified to have expertise on these specific topics will be assembled and tasked with authoring these topic-specific guidelines. The evidence syntheses on these and other topics will be updated on a rolling basis such that there will be a "living" (ie, updated at most every year depending on changing information) set of comprehensive Hypertension Canada guidelines that are continuously being modernized on a topic-by-topic basis. Established evidence synthesis groups will perform the systematic reviews and bring them to our subcommittees for formulation of the recommendations. Each topic-specific guideline will be made publicly available for stakeholder feedback before finalization of the recommendations. We might also partner with other hypertension organizations internationally to share the costs of evidence synthesis and harmonize the guidelines. Our goal is to release the first batch of these priority topic-specific guidelines in late 2025 with multiple topics being updated thereafter each year on a rolling basis.

In addition to these steps, several other key elements for success will be put into place. First, because of the notoriously challenging process of translating guideline recommendations into clinical practice, we are assembling an implementation taskforce of knowledge dissemination experts and key stakeholders to optimize uptake. Second, we are currently working to put measures in place to measure the success our new guideline approach (eg, hypertension awareness/treatment/control rates, metrics on guideline adherence, etc). Third, we plan to continue Hypertension Canada's close partnership with the Canadian Cardiovascular Harmonized National Guideline Endeavour (C-CHANGE) which serves to harmonize the recommendations of Canada's main cardiovascular-focused guideline groups to help primary care providers optimally manage patients with multimorbidity.[19] In closing, we are excited to embark on this journey to maintain Canada as a global leader in hypertension management. We look forward to working alongside the many stakeholders whose collaboration and input will be vital to the success of this endeavor.

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