



# AGREE II

## **A critical appraisal of: Hypertension Canada Guidelines using the AGREE II Instrument**

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URL of this appraisal: <http://www.agreetrust.org/appraisal/50011>

Guideline URL: [http://www.onlinecjc.ca/article/S0828-282X\(17\)30110-1/pdf](http://www.onlinecjc.ca/article/S0828-282X(17)30110-1/pdf)

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### **Overall Assessment**

Title: Hypertension Canada Guidelines

Overall quality of this guideline: 7/7

Guideline recommended for use? Yes.

Notes:

Overall high quality guidelines. See individual domain items and comments for lower ratings to improve in these areas.

<b>Domain</b>	<b>Total</b>
1. Scope and Purpose	21
2. Stakeholder Involvement	18
3. Rigour of Development	53
4. Clarity of Presentation	20
5. Applicability	21
6. Editorial Independence	14

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## **1. Scope and Purpose**

### **1. The overall objective(s) of the guideline is (are) specifically described.**

Rating: 7

The Hypertension Canada Guidelines process provides annually updated evidence-based clinical practice guidelines for health care professionals, with the ultimate goal of improving hypertension prevention, detection, and management in Canada. Body of guidelines specifies target population.

### **2. The health question(s) covered by the guideline is (are) specifically described.**

Rating: 7

These are described in each guideline section (e.g. diagnosis and treatment recommendations arranged by subsection). Health questions are selected for inclusion based upon their importance to hypertension diagnosis and management and also based upon the availability and quality of the underlying evidence. As such, important health questions for which there are no data to inform a guideline may not be included.

### **3. The population (patients, public, etc.) to whom the guideline is meant to apply is specifically described.**

Rating: 7

The guideline is primarily meant to apply to adult Canadians who are at risk for or who have hypertension. Content includes comorbidities, target populations, and any relevant stages of diseases are specified.

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## 2. Stakeholder Involvement

### 4. The guideline development group includes individuals from all relevant professional groups.

Rating: 7

The Guidelines Taskforce is a multidisciplinary panel comprised chairs and subgroups. Subgroup members, considered content experts in their fields, are responsible for reviewing annual search results and, if indicated, drafting new guidelines or proposing changes to old guidelines. An independent central review committee of methodology experts who have no industry affiliations separately review, grade, and refine proposed guidelines, which are then presented at a 1-day consensus conference. Members of C-CHANGE, the Canadian Task Force on Preventive Health Care, Canadian Diabetes Association Guidelines Committee, Canadian Society of Nephrology, Canadian Stroke Network, and the Canadian Cardiovascular Harmonized National Guideline Endeavour Initiative also collaborate with Hypertension Canada Guidelines subgroup members to ensure harmonization of guidelines between organizations. Guideline development group information is shared and represents members of relevant professional groups and includes national representation. Central review committee and sub groups are also shared.

### 5. The views and preferences of the target population (patients, public, etc.) have been sought.

Rating: 4

Currently, no formal mechanism is in place but ways to incorporate patients' views and preferences are being considered for future iterations. No statements reported on the involvement of patients or public in the guidelines process, although there is patient/public involvement in the development of tools for guidelines dissemination. Item content to report includes the following CRITERIA: -statement of type of strategy used to capture patients'/public's' views and preferences (e.g., participation in the guideline development group, literature review of values and preferences) -methods by which preferences and views were sought (e.g., evidence from literature, surveys, focus groups) - outcomes/information gathered on patient/public information -description of how the information gathered was used to inform the guideline development process and/or formation of the recommendation

### 6. The target users of the guideline are clearly defined.

Rating: 7

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## 3. Rigour of Development

### 7. Systematic methods were used to search for evidence.

Rating: 7

A systematic literature search is performed by a Cochrane Collaboration librarian in

MedLine/PubMed using text words and MeSH headings. Search terms include hypertension [MeSH], hypertens\*[ti, ab], and blood pressure; these are combined with topic-specific terms to generate search results for each subgroup to review. Bibliographies of identified articles are also manually searched. Randomized controlled trials and systematic reviews of randomized trials are reviewed for treatment recommendations and cross-sectional and cohort studies are reviewed for assessing diagnosis and prognosis. Searches are performed annually.

## **8. The criteria for selecting the evidence are clearly described.**

Rating: 7

Cardiovascular morbidity and mortality as well as total mortality outcomes were prioritized for pharmacotherapy studies. For health behaviour guidelines, BP was considered an acceptable surrogate. Similarly, progressive renal impairment was an acceptable surrogate for guidelines relevant to chronic kidney disease. Study characteristics and study quality were assessed using prespecified, standardized algorithms developed by Hypertension Canada for the critical appraisal of randomized controlled trials and observational studies.

## **9. The strengths and limitations of the body of evidence are clearly described.**

Rating: 6

Guidelines are graded according to the strength of their underlying evidence ranging from Grade A (strongest evidence, based on high-quality randomized clinical trials) to Grade D (weakest evidence, based on low power, imprecise studies or expert opinion alone). Details are provided in the Supplementary Appendix of the main manuscript. Outcomes assessed especially where lower grade D recommendations are made are not stated explicitly (aside from statement that benefits outweigh risks). Considering the fair amount of Grade D recommendations, could have more explanation to reader in main text. Items to report on also include: Item content includes the following CRITERIA: -descriptions of how the body of evidence was evaluated for bias and how it was interpreted by members of the guideline development group -aspects upon which to frame descriptions include: -study design(s) included in body of evidence -study methodology limitations (sampling, blinding, allocation concealment, analytical methods) -appropriateness/relevance of primary and secondary outcomes considered -consistency of results across studies -direction of results across studies -magnitude of benefit versus magnitude of harm -applicability to practice context

## **10. The methods for formulating the recommendations are clearly described.**

Rating: 7

After a consensus meeting, proposed guidelines are finalized and submitted to all voting members for approval. Members with potential conflicts of interest recuse themselves from voting on specific guidelines. Guidelines receiving more than 70% approval are passed. Also externally reviewed.

## **11. The health benefits, side effects, and risks have been considered in**

## **formulating the recommendations.**

Rating: 7

### **12. There is an explicit link between the recommendations and the supporting evidence.**

Rating: 6

Explanations for the Grade D recommendations based on expert opinion could be made more explicit for readers. Item content includes the following CRITERIA: -the guideline describes how the guideline development group linked and used the evidence to inform recommendations -each recommendation is linked to a key evidence description/paragraph and/or reference list -recommendations linked to evidence summaries, evidence tables in the results section of the guideline

### **13. The guideline has been externally reviewed by experts prior to its publication.**

Rating: 6

Three external primary care experts review the draft guidelines annually but not stated explicitly who they are or affiliations in the main body of guidelines or supplementary appendix. External reviewers assess the guidelines using the AGREE II tool.  
[http://www.onlinecjc.ca/article/S0828-282X\(16\)30089-7/abstract](http://www.onlinecjc.ca/article/S0828-282X(16)30089-7/abstract)

### **14. A procedure for updating the guideline is provided.**

Rating: 7

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## **4. Clarity of Presentation**

### **15. The recommendations are specific and unambiguous.**

Rating: 6

### **16. The different options for management of the condition or health issue are clearly presented.**

Rating: 7

The guidelines cover the spectrum of hypertension diagnosis and management including health behaviour modification, antihypertensive pharmacotherapy and additional non-blood-pressure-related treatments recommended for reducing global vascular risk.

### **17. Key recommendations are easily identifiable.**

Rating: 7

Guidelines are stated explicitly and are separated from background text. New recommendations also noted in the text

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## 5. Applicability

### **18. The guideline describes facilitators and barriers to its application.**

Rating: 5

The Implementation and Education Committee, a separate branch of Hypertension Canada, conducts an extensive knowledge translation effort to enhance uptake and applicability of these guidelines. These efforts include knowledge exchange forums, targeted educational materials for primary care providers and patients, and freely available slide kits and summary documents of all guidelines on Hypertension Canada website (<http://www.hypertension.ca>). Documents are available in French and English, and some documents are translated into other languages. Although the number of primary care providers that directly receive Hypertension Canada Guidelines' materials on a regular basis has dramatically increased, Hypertension Canada is continuing to address the challenge of identifying and reaching all active primary care providers across Canada, through use of our online platforms and professional networks. Discussion on barriers/facilitators to guideline uptake is not made explicit in body of text. Items to report on can include: Item content includes the following CRITERIA: -identification of the types of facilitators and barriers that were considered -methods by which information regarding the facilitators and barriers to implementing recommendations were sought (e.g., feedback from key stakeholders, pilot testing of guidelines before widespread implementation) - information/description of the types of facilitators and barriers that emerged from the inquiry (e.g., practitioners have the skills to deliver the recommended care, sufficient equipment is not available to ensure all eligible members of the population receive mammography) -description of how the information influenced the guideline development process and/or formation of the recommendations

### **19. The guideline provides advice and/or tools on how the recommendations can be put into practice.**

Rating: 7

Educational materials based on the Hypertension Canada Guidelines have been designed for patients and the public, and to assist health care practitioners managing hypertension.

### **20. The potential resource implications of applying the recommendations have been considered.**

Rating: 4

Hypertension Canada currently does not take economic considerations into account when drafting guidelines. There is mention of benefits and risks but does not make explicit the types of resources considered (whether economic, human resource, drug acquisition costs).

## **21. The guideline presents monitoring and/or auditing criteria.**

Rating: 5

The Research Evaluation Committee conducts hypertension surveillance studies and reviews existing Canadian health surveys to identify gaps between current and best practices. The implementation task force also regularly receives feedback from end users to improve guideline processes and content. Specific monitoring and auditing criteria not explicit with respect to evaluation and ongoing use of the guideline. Items to report on can include: Item content includes the following CRITERIA: -identification of criteria to assess guideline implementation or adherence to recommendations -criteria for assessing impact of implementing the recommendations -advice on the frequency and interval of measurement -descriptions or operational definitions of how the criteria should be measured

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## **6. Editorial Independence**

### **22. The views of the funding body have not influenced the content of the guideline.**

Rating: 7

The members of the HCGC are unpaid volunteers who contribute their time and expertise to the annual development and dissemination of the Hypertension Canada Guidelines. To maintain professional credibility of the content, the process for the development of the guidelines is fully independent and free from external influence. External partners assist with the dissemination of the approved guidelines.

### **23. Competing interests of guideline development group members have been recorded and addressed.**

Rating: 7

Members with potential conflicts of interest recuse themselves from voting on specific guidelines (a list of conflicts for each member and each year can be found in the Supplemental Appendix to the main paper).

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