

**THE CANADIAN HYPERTENSION EDUCATION PROGRAM (CHEP) --
A THERAPEUTIC KNOWLEDGE TRANSLATION PROGRAM
A CSCP LECTURE PRESENTED AT THE
2005 CANADIAN THERAPEUTICS CONGRESS
(ABRIDGED VERSION)**

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Abstract

The Canadian Hypertension Education Program (CHEP) is a dynamic therapeutic knowledge translation program that changes annually based on the previous years' experience. To meet the challenge of hypertension treatment and control CHEP activities include updating evidence-based management recommendations, implementing the recommendations and examining the impact of CHEP on hypertension management and hypertensive complications. CHEP aids health care professionals by providing credible widely disseminated up-to-date recommendations in multiple formats to suit individual learning needs.

Key words: Hypertension, knowledge translation

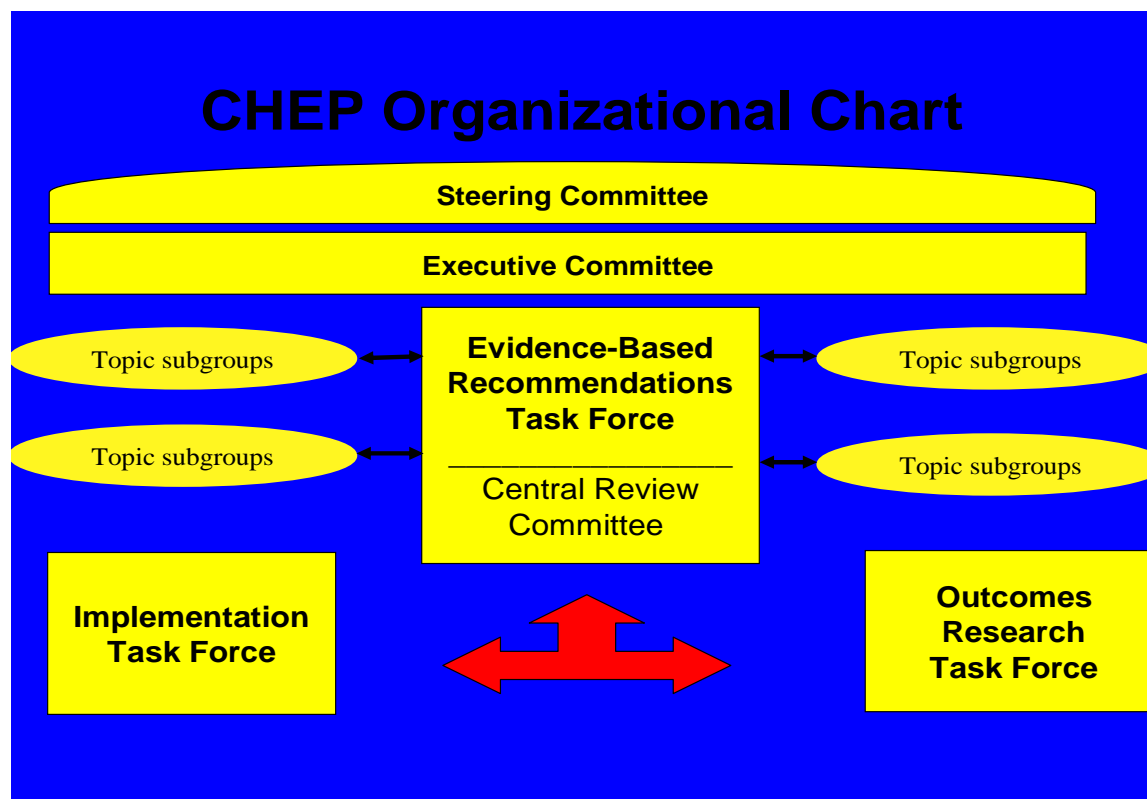
The Canadian Hypertension Education Program is an example of a therapeutic knowledge translation program. Hypertension was targeted for an extensive knowledge translation program because high blood pressure is a leading risk for death in countries like Canada; hypertension is very common with over 90% of North Americans estimated to develop hypertension in their lives; hypertensive complications are preventable; and there is a large therapeutic gap in Canada with only 13% of adult hypertensive patients being treated to current therapeutic targets.¹⁻³

The United States has a hypertension treatment and control rate that is almost twice the Canadian rate and Americans with hypertension were more likely to be aware of their diagnosis and to receive drug therapy.⁴ The United States has had a National High Blood Pressure Education Program (NHBPEP) for over thirty years potentially explaining the superior hypertension awareness, treatment and control rates in that country.⁵ Therefore, it was believed that a marked reduction in the cardiovascular risks of hypertensive Canadians could be obtained

through an education program. The Canadian Hypertension Education Program (CHEP) was developed specifically to improve the treatment and control of hypertension in Canada through knowledge translation. The original target for CHEP was family physicians but more recently has broadened to target all primary care disciplines and the public. CHEP was initiated in 2000 following the 1999 periodic update of Canadian Hypertension recommendations⁶ and is sponsored by the Canadian Hypertension Society, Blood Pressure Canada, the Public Health Agency of Canada, the Heart and Stroke Foundation of Canada and the College of Family Physicians of Canada.

CHEP currently has 3 distinct task forces. The task forces annually develop updated evidence-based management recommendations, implement the recommendations, and examine the impact of CHEP on hypertension management and hypertensive complications. A steering committee with representation of the sponsoring organizations oversees CHEP and an executive of the co-chairs of the task forces runs the day-to-day aspects of CHEP (Figure 1).

FIG. 1



Recommendations Task Force

The approach taken by the Recommendations Task Force is highly structured and systematic. It is based on the Canadian 'Guidelines for Guidelines' and the previous Canadian Hypertension Recommendations process⁶ but was modified to allow the annual updating of the recommendations.^{7,8} The Appraisal of guidelines for research & evaluation (AGREE) document for evaluating guidelines was consulted when revising the CHEP process.⁹ CHEP places a high value on rigorous research design and patient outcomes in order to reduce bias and to be transparent. The Task Force has 42 members in 14 subgroups. The subgroups have been assigned topics important to the treatment and control of hypertension. Each subgroup develops draft recommendations based on systematic literature searches performed by a librarian. A committee of experts in evidence-based medicine (the central review committee) reviews the recommendations

and evidence to ensure that a consistent approach and standards are used in the development of the recommendations. The central review committee also negotiates proposed revisions with the subgroups. The evidence and draft recommendations are debated and revised at an annual meeting of the Task Force and then presented at the Canadian Cardiovascular Congress. The full task force and executive vote on the draft recommendations and only recommendations that achieve over 70% support are adopted. To date the lowest level of support for a recommendation has been over 80%.

The Implementation Task Force

The implementation of recommendations involves members of CHEP as well as other hypertension experts and educators from across Canada. The ability to readdress any contentious issues and new evidence on an annual basis results in strong support from CHEP members. The structured

process avoids divisive arguments based on the diversity of personal opinions.

Key implementation messages are developed to emphasize important recommendations and an annual theme is selected to highlight an important CHEP initiative. The dissemination process includes publishing full scientific manuscripts in the Canadian Journal of Cardiology, a variety of short clinical and scientific summaries tailored to the audience, brief handouts, posters, pocket cards, advertisements, power point education kits, text books, slide sets, and workshops. Summaries of the recommendations are published in up to 15 multi-disciplinary journals each year. In addition, many pharmaceutical companies have developed educational programs that are based on the recommendations. 'Train the trainer' sessions have been developed where local opinion leaders learn to provide workshops on the latest CHEP recommendations. Programs that are completely consistent with the recommendations can receive endorsement by CHEP. The recommendations and a number of dissemination tools can be found at the Canadian Hypertension Society website (www.hypertension.ca).

Specific subgroups involving practitioners of nursing, family medicine, pharmacy, stroke neurology and exercise physiology were developed in 2005 to aid dissemination in those disciplines. The subgroups assist with editing the material to meet their disciplines needs and are tasked to disseminate to health care professional schools and training programs, national and provincial organizations as well as to websites and written publications for their specific discipline. CHEP is developing formal partnerships with professional societies to assist in the dissemination process. A brief description of the earlier implementation component of CHEP has been published.¹⁰

Outcomes Research Task Force

An Outcomes Research Task Force is developing a national surveillance program for hypertension.

The activities of the four subgroups will be:

1. to monitor hospitalization and mortality for acute stroke, acute myocardial infarction, and heart failure,

2. to implement and evaluate cross sectional national questionnaire surveys on awareness of hypertension and treatment of hypertension,

3. to track hypertension diagnosis, hypertension treatment and complications for hypertension using provincial administrative databases, and,

4. to assess national prescribing of antihypertensive drugs.

A Canadian Health Measures Survey will be conducted during 2006-2008 and will determine the prevalence of hypertension as well as the hypertension treatment and control rate. Early data show a large increase in the diagnosis (unpublished data) and treatment¹¹ of hypertension.

In conclusion, the CHEP program is a dynamic therapeutic knowledge translation program that changes annually based on the previous years' experience. To meet the challenge of hypertension treatment and control, CHEP is growing and currently has over 70 members. CHEP aids health care professionals by providing credible widely disseminated up-to-date recommendations in multiple formats to suit individual learning needs. CHEP material is available on the CHS website (www.hypertension.ca).

For clinical pharmacologists the CHEP program can be viewed as a model for therapeutic knowledge translation. To date there have been some therapeutic knowledge translation initiatives involving the fields of maternal-fetal clinical pharmacology and drug-drug interactions. Other opportunities exist and should be the focus for new activities by clinical pharmacologists.

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