



KEY MESSAGES

Benefits of pharmacist care in hypertension management

Study Overview

A new study shows that comprehensive long-term pharmacist care in patients with hypertension, including patient education and prescribing, improves health outcomes and saves dollars for the health care system.

1. While there is very strong evidence available for the health benefits of pharmacist care in people with hypertension (including several clinical trials conducted in Canada), there has been, until now, a lack of research done on the economic value of this type of pharmacist care.
2. The study looked at whether long-term pharmacist care would decrease events of cardiovascular and kidney disease, what magnitude of differences in survival and quality of life could be achieved, what the effect on direct medical costs would be, and how cost effective the intervention could be.
3. A model was developed which looked at potential differences in long-term cardiovascular and kidney failure outcomes when different levels of blood pressure reduction were achieved through several different levels of pharmacist care.
4. The model looks at two possible alternatives to “usual” care (limited pharmacist involvement): the first is full scope – making full use of a pharmacist’s scope of care – while the second is partial scope care.
5. The analysis shows a real and significant benefit from pharmacist care both in terms of cost savings and health benefits when compared with “usual” care.
6. In all analyses, the rates for cardiovascular disease and kidney failure are lowest with the full scope of pharmacist care and highest under the “usual” care scenario.
7. The results highlight the relatively low costs of the program, particularly relative to the costs of treating cardiovascular disease or kidney failure.

Health Benefits

Lives are saved and health care outcomes are improved when pharmacists are involved in long-term treatment of hypertension.

1. Analysis has shown a range of health benefits associated with pharmacist care in patients with high blood pressure, including an 18.3 mmHg reduction in systolic blood pressure.
2. Over 30 years, it is estimated that for every five people receiving full scope of pharmacist care, one cardiovascular event (defined as stroke, heart attack, angina and heart failure) would be avoided and four years of life would be saved.



3. When the full eligible population accessing care is considered over 30 years of full scope care, there would be fewer strokes (130,000), fewer heart attacks (260,000), fewer cases of angina (76,000), and fewer instances of heart failure (70,000) and kidney failure (1,800).
4. It is estimated there would be an additional 953,000 years lived when the health impact is analyzed across the full eligible population accessing care.

Economic Impact

Long-term pharmacist care in patients with hypertension will save money for Canada's cash-strapped health care system.

1. The study found that full scope pharmacist care for a patient with hypertension could result in cost-savings per person over 30 years.
2. If full scope pharmacist care were administered to the full eligible population accessing care (930,000 today, with another 75,000 added every year over a period of 30 years) the projected cost savings would be more than \$15.7 billion dollars.
3. The reduction in healthcare costs related to cardiovascular disease and kidney failure more than offsets the increased cost of pharmacist care (\$7,145 increase in costs for medication and care vs. a \$15,093 reduction in costs related to cardiovascular and kidney disease treatment).
4. The results highlight the low costs of the program, particularly relative to the costs of treating cardiovascular disease or kidney disease.

Pharmacist Messaging

Pharmacists are ideally positioned to address the "care gap" in hypertension management.

1. Pharmacists are Canada's most trusted and accessible health care providers.
2. On average, people see their pharmacist five to seven times more often than their family doctor.
3. Pharmacists work with the patient and their physicians to improve care as members of a patient-centred team.
4. If pharmacists make use of their full scope of skills – including prescribing—health improvements and cost savings result in all scenarios in the study when compared to the usual care that Canadians receive.
5. The infrastructure for these pharmacist services already exist; what is now needed is to expand pharmacists' scope of practice and to appropriately incentivize them to provide this care.



Q&A

Benefits of pharmacist care in hypertension management

About Hypertension

How serious is hypertension worldwide?

- It is the No. 1 risk factor for disease and premature deaths.
- A quarter of the world's population – 1.13 billion – is estimated to have high blood pressure
- Hypertension is responsible for about 7.5 million deaths worldwide each year.
- Treatment and control is poor with 40 per cent of patients having uncontrolled blood pressure.
- There is a considerable gap in hypertension care and we need new thinking to address this.

How serious is hypertension in Canada?

- In Canada around 5.3 million people are living with hypertension.
- The incidence of hypertension was reported to be 24 per cent in adults in 2015.
- Research suggests that by 2030 hypertension to 33 per cent of the adult population.
- Improving on those numbers would have real benefits in both lives improved and saved and in reduced health care costs.

What are the worldwide costs and burdens of hypertension?

- The burden is enormous in health and economic terms.
- High blood pressure is second only to dietary risks as a cause of death.
- High blood pressure is responsible for 50 per cent of the overall risk for heart disease and stroke; 28 per cent of kidney failure and is a contributing factor for dementia.
- Globally, it costs more than \$370 billion per year – with indirect costs from premature deaths and time missed from work to be about 10 per cent of the world's health expenditures.
- Being able to improve these numbers even slightly would result in countless lives saved and improved and millions – perhaps even billions – of dollars saved.



Pharmacist Care

What are the benefits of pharmacist care in treating hypertension?

- Past clinical trial evidence has demonstrated the advantages of pharmacist care, including education, consultation and/or prescribing that can lead to a reduction in blood pressure.
- Hypertension is a major risk factor for cardiovascular disease, kidney failure and death and there is a great opportunity to improve outcomes by preventing the onset and progression of these diseases through pharmacist care.

What is full scope of care when referring to the pharmacist role in treating hypertension?

- Full scope of care means assessment of and counseling about cardiovascular risk and blood pressure control, reviewing antihypertensive medications, prescribing/titrating of drug therapy, laboratory testing, and follow up visits with the pharmacist.

What is partial scope of care when referring to the pharmacist role in treating hypertension?

- Partial scope care means a combination of patient education and counseling, recommendations to other health care professionals, medication management (including adjustment or change to medication), measurement of blood pressure, hypertension staging and risk stratification and reviewing home blood pressure monitoring measurements. It does not include prescribing.

About the Study

What does the study show?

- The study shows that comprehensive long-term pharmacist care in patients with hypertension, including patient education and prescribing, improves health outcomes and saves dollars for the health care system.
- While there is very strong evidence available for the health benefits of pharmacist care in people with hypertension (including several clinical trials conducted in Canada), there has been, until now, a lack of research done on the economic value of this type of pharmacist care.
- The analysis shows a real and significant benefit from pharmacist care both in terms of cost savings and health benefits when compared with “usual” care.
- In all analyses, the rates for cardiovascular disease and kidney failure are lowest with the full scope of pharmacist care and highest under the “usual” care scenario.
- The results highlight the relatively low costs of the pharmacist care, particularly relative to the costs of treating cardiovascular disease or kidney failure.



What does the study say about improving health outcomes with pharmacists' care?

- Analysis has shown a range of health benefits associated with pharmacist care in patients with high blood pressure, including an 18.3 mmHg reduction in systolic blood pressure.
- Over 30 years, it is estimated that for every five people receiving full scope of pharmacist care, one cardiovascular event (defined as stroke, heart attack, angina and heart failure) would be avoided and four years of life would be saved.
- When the full eligible population accessing care is considered over 30 years of full scope of care, there would be fewer strokes (130,000), fewer heart attacks (260,000), fewer cases of angina (76,000), and fewer instances of heart failure (70,000) and kidney failure (1,800).
- It is estimated there would be an additional 953,000 years lived when the health impact is analyzed across the full eligible population accessing care.

What are the economic impacts when pharmacists provide comprehensive care?

- The study found that full scope of pharmacist care for a patient with hypertension could result in cost-savings per person over 30 years.
- If full scope pharmacist care were administered to the full eligible population accessing care – 930,000 today, with another 75,000 added every year over a period of 30 years – the projected cost savings would be more than \$15.7 billion dollars.
- The reduction in healthcare costs related to cardiovascular disease and kidney failure more than offsets the increased cost of pharmacist care (\$7,145 increase in costs for medication and care vs. a \$15,093 reduction in costs related to cardiovascular and kidney disease treatment).
- The results highlight the low costs of the program, particularly relative to the costs of treating cardiovascular disease or kidney disease.

Why are pharmacists best positioned to address this “care gap” in hypertension?

- If pharmacists make use of their full scope of skills – including prescribing – health improvements and cost savings result in all scenarios in the study when compared to the usual care that Canadians receive.
- Pharmacists are Canada's most trusted and accessible health care providers.
- On average, people see their pharmacist five to seven times more often than their family doctor.
- Pharmacists work with the patient and their physicians to improve care as members of a patient-centred team.
- The infrastructure for these pharmacist services already exist; what is now needed is to expand pharmacists' scope of practice and to appropriately incentivize them to provide this care.



Why is this study important?

- The study shows that comprehensive long-term pharmacist care in patients with hypertension, including patient education and prescribing, improves health outcomes and saves dollars for the health care system.
- While there is very strong evidence available for the health benefits of pharmacist care in people with hypertension (including several clinical trials conducted in Canada), there has been, until now, a lack of research done on the economic value of this type of pharmacist care. We now have an idea of the economic impact of long-term pharmacist care.
- If pharmacists make use of their full scope of skills – including prescribing – health improvements and cost savings result in all scenarios in the study when compared to the usual care that Canadians receive.
- Being able to improve the numbers on the costs of hypertension – even slightly – would result in countless lives saved and improved and millions – perhaps even billions – of dollars saved.

Can you explain what the web application is which accompanies the study?

- An interactive web application accompanies the reports and allow users to generate economic results associated with specific scenarios and parameter values of interest for each province.