

# Pharmacists play key role in improving patient health

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Scot H. Simpson, professor, Faculty of Pharmacy and Pharmaceutical Sciences

Over the past nine years, Scot H. Simpson, professor in the faculty of Pharmacy and Pharmaceutical Sciences at the University of Alberta, has been studying the role of pharmacists on primary care teams and their impact on the health of patients with Type 2 diabetes.

His most recent study, Pharmacists on [primary care](#) teams: Effect on

antihypertensive medication management in [patients](#) with Type 2 diabetes, published in the May/June issue of the *Journal of the American Pharmacists Association*, found that having pharmacists on primary care teams had a significant impact on the treatment of [blood pressure](#) in patients with Type 2 diabetes.

The study was part of a larger research project published in *Diabetes Care* in 2011.

The main study, which was a randomized control trial, examined [blood pressure control](#) in people with Type 2 diabetes as a measurable, clinically important outcome. Results of the main study showed that the addition of pharmacists to primary care teams produced substantial improvements in the health of patients with Type 2 diabetes.

According to the Canadian Diabetes Association, there are 10 million people in Canada living with diabetes or pre-diabetes, with more than 20 Canadians being newly diagnosed with the disease every hour of every day.

Simpson wanted to delve further and 'pinpoint what specifically pharmacists did to improve patient health.

'Our goal with this sub-study was to deconstruct the interventions being used and understand exactly what it was that the pharmacists did to have a positive effect on patient health,' says Simpson.

Patients in the intervention group were counselled directly by two pharmacists, who worked with the patients' physicians as part of primary care teams at several clinics within Edmonton's Southside Primary Care Network. Control group patients did not see a primary care team pharmacist during the study. At the end of the study, 42 percent of the intervention group patients had at least one change to their blood

pressure drugs compared to 26 percent of the control group patients.

'Based on the data, we found that patients who had a change in blood pressure drugs were twice as likely to have an improvement in their blood pressure compared to those who didn't have a change in [blood pressure drugs](#),' says Simpson.

Simpson's findings support the importance of interprofessional health collaboration in treating patients. 'Adding pharmacists to the team to review medications, identify drug-related problems and manage the treatment has a positive effect on [blood pressure levels](#) of patients with Type 2 diabetes,' says Simpson.

'The pharmacists involved in the study had very collaborative discussions with the physicians about the patients' medications and proposed drug treatment options,' he says. 'It was from these discussions that the pharmacists were able to suggest alternative medicines or changes in dosage that contributed to lowering the patient's blood pressure.'

In fact, there was one patient who had difficulty in achieving blood pressure target because of reflex tachycardia, which is increased heart rate in response to a lower blood pressure.

'The [pharmacist](#) was able to recommend switching from one drug to another and was able to help the patient achieve better blood pressure control without adverse effects,' explains Simpson.

Alberta's pharmacists currently have the broadest scope of practice in North America. While this study was conducted prior to Alberta pharmacists having authorized prescribing authority (APA), the pharmaceutical knowledge pharmacists bring to the team is critical, says Simpson.

'Pharmacists use their training to review the patient's medication history and work with physicians to find the best solutions for patients.'

**More information:** *Journal of the American Pharmacists Association*,  
<http://japha.org/article.aspx?articleID=2281010>

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