

The Stroke Program, Edmonton Zone (SPEZ) quarterly newsletter provides current information and updates to healthcare providers working within stroke care

March is National Pharmacist Awareness Month

In this edition, learn how pharmacists are integral to Stroke Prevention & Management

“Drug Experts” and so much more: The Pharmacist Role in Stroke Prevention

Each member of the health care team contributes to a necessary piece of the “patient care puzzle”. Within this team, pharmacists are generally recognized as the medication specialist, ensuring the patient receives individualized, safe, and effective therapy, and that the patient is able to be compliant with these medications.

In recent years, however, scope of practice for the pharmacist has expanded, offering these healthcare providers more opportunity to contribute to the overall health and wellbeing of Canadians, including health promotion, prevention, and disease management. In Alberta, pharmacists can now obtain the ability to prescribe medications, order lab tests to monitor drug therapy, and administer injectable medications.

In this edition, we highlight the essential role of pharmacists in stroke prevention and management throughout the transition of care.

Pharmacists in the Inpatient and Outpatient Settings

Tyler Moore BSP, Clinical Pharmacist for Stroke, and Kirsten George-Phillips BSP, Clinical Pharmacist at the AH Owen Stroke Prevention Clinic (SPC), work at the University of Alberta Hospital (UAH). Interestingly, both describe being frequently met with puzzlement from patients, families and even staff members when they enter a patient room.

Pharmacists working within a hospital setting are often thought to spend all of their time in the pharmacy reviewing and preparing medication. Although these are essential aspects to their role, many people are surprised to learn that pharmacists spend the vast majority of their time in the clinical setting, contributing to patient care within a multidisciplinary team.

The acute stroke team at UAH, a medical teaching team, includes a wide spectrum of residents from different specialties. As the pharmacist on this team, Tyler’s primary focus is to ensure appropriate, safe and efficacious medication decisions are made for patients

on the stroke unit. The acute clinical pharmacist also ensures that a correct, best possible medication history is recorded on every new patient admission.

During the acute stroke phase, pharmacists monitor each patient’s condition, ensuring the right medications, and dosages, are delivered by the most appropriate routes, e.g. adaptations for a dysphagic patient. Once the patient has stabilized, the pharmacist identifies patient specific stroke risk factors and initiates or modifies drug therapy for secondary stroke prevention. Inpatient pharmacists also help manage complications resulting from hospitalization, for example a nosocomial infection, by identifying and suggesting appropriate treatments.

Pharmacists provide patient education prior to discharge regarding medication changes made while in hospital, including the risk/benefit of new therapies, medication and/or food interactions, and the importance of adherence. The clinical pharmacist facilitates a seamless transition to the community by assisting with discharge prescriptions, ensuring follow-up dates with the stroke prevention clinic are booked, and resolving any drug insurance issues on new medications.

All discharged stroke and TIA patients should be referred for follow-up to a Stroke Prevention Clinic, and may be fortunate enough to come in contact with Kirsten. Throughout her years working within the SPC, Kirsten has developed collaborative relationships with nurses, dietitians, neurologists, other physicians and support staff, optimizing the management and care provided to patients at high risk for stroke.

As a member of the SPC interdisciplinary team, Kirsten identifies and educates patients on their individual risk for stroke. She works with the patient and team to determine management strategies to address these risks and prescribes required medications. Educating patients on prescribed medications, monitoring their response and adjusting dosages, identifying and resolving any drug-related problems including drug interactions, compliance and medication costs fall within the role of the pharmacist at the SPC.

In addition to her clinic work, Kirsten was involved in the

PREVENTION trial¹, a study which demonstrated that active risk factor management by a prescribing pharmacist improved attainment of blood pressure and lipid targets in stroke patients. Kirsten and Tyler's work demonstrate how pharmacists are in an excellent position to optimize patient health through screening and prevention.

Stroke Prevention after Discharge: The Community Pharmacist

The role of the community pharmacist has transformed, expanding the scope of practice and increasing the ability to directly manage chronic conditions. Community pharmacists are easily accessible to the public and use their expertise to advise people on stroke prevention through education, lifestyle counseling, screening, and medication management.

Regular visits to the pharmacy for medication refills provide opportunities for the pharmacist to raise awareness of stroke risk factors such as hypertension and high cholesterol and provide education on risk reduction strategies including weight management, sodium restriction, smoking cessation, medication adherence and regular monitoring of blood pressure. Community pharmacists can also guide patients on the appropriate selection and operation of home blood pressure monitors to achieve the most accurate results.

They provide guidance to patients at high risk for stroke regarding over-the-counter medications or foods that may increase blood pressure, have high sodium content, or interact with antihypertensive medication or statins, and help select appropriate alternatives. Conducting a medication review and fill history can help identify drug related problems or adherence issues. Medication tolerability is assessed through discussion of side effects and patient related concerns.

The pharmacist works collaboratively with the physician and patient to develop a prioritized care plan, including monitoring and routine follow-ups. Pharmacists who have applied for a Prac ID are empowered with the ability to order and interpret laboratory testing to assess efficacy of treatment by comparing lab values to baseline. Also, with the advent of prescribing authorization, pharmacists have the ability to initiate and/or titrate treatment to achieve guideline recommended targets for blood pressure and lipids.

As you can appreciate, pharmacists possess a unique set of knowledge and skills integral to patient care and the health care team. These care providers work within a vast array of settings and play a pivotal role in educating the public, detecting, monitoring and managing people at high risk for stroke.

Please join us in recognizing your pharmacist colleagues on the contributions they provide to patient care and stroke prevention.

We wish to thank the following pharmacists for their valuable contributions:

- Tyler Moore, BScPharm, Clinical Pharmacist, University of Alberta Hospital
- Kirsten George-Phillips, BSP, Clinical Pharmacist, AH Owen Stroke Prevention Clinic
- Peter Dean, BSCPHM, RPH, Manager of Clareview Rexall

Featured Stroke Best Practice Guidelines Role of the Pharmacist

4.1.1. Stroke Unit Care, Recommendation:

ii. a. "All stroke teams should include hospital pharmacists to promote patient safety, medication reconciliation, provide education to the team and patients/family regarding medication(s) (especially side effects, adverse effects, interactions), discussions regarding adherence, and discharge planning (such as special needs for patients, e.g., individual dosing packages) [Evidence Level B]."

3.2. Blood Pressure Management, Recommendation:

"Blood pressure should be managed in all patients to reach optimal control as follows:

- For patients who have had a stroke or TIA, blood pressure lowering treatment is recommended to achieve a target of consistently lower than 140/90 mmHg (Evidence Level B)."

Rationale: "Numerous population-based studies have found that elevated blood pressure is a significant risk factor for first and recurrent stroke; hypertension is estimated to account for about 60 percent of the population-attributable risk for cerebrovascular disease."

Lipid Management, Recommendations:

4.0. "Patients who have had an ischemic stroke or TIA should have their serum lipid levels assessed and aggressively managed (Evidence level A)."

1. McAllister, F.A, et al. Case management reduces global vascular risk after stroke: secondary results from The preventing recurrent vascular events and neurological worsening through intensive organized case-management randomized controlled trial. *Am Heart J*. 2014 Dec;168(6):924-30.

4.2. ii. "A statin should be prescribed as secondary prevention to most patients who have had an ischemic stroke or TIA in order to achieve an LDL cholesterol of less than 2.0 mmol/L, or a 50% reduction in LDL cholesterol from baseline (Evidence Level B)."

Rationale: "High cholesterol and lipids in the blood are associated with a higher risk of vascular events including stroke and myocardial infarction. People who have already had an ischemic stroke or transient ischemic attack will benefit from cholesterol-lowering medications with a statin class of drug."

What is the Stroke Program, Edmonton Zone doing? Pharmacists in the Edmonton Zone play a key role within multidisciplinary teams on three acute care stroke units and in three Stroke Prevention Clinics. Using their comprehensive drug knowledge and unique skill set, they work in collaboration with the team to optimize patient medication management and care, leading to better adherence and overall medical management.

LEARN THE SIGNS OF STROKE



2015 Canadian Stroke Congress

The 6th annual [Canadian Stroke Congress](#) will be taking place September 17-19th in Toronto.

Abstracts are now being accepted. Consider participating in this event by highlighting a stroke related project at your site (SPEZ can assist with abstract and poster preparation).

* **Abstract submission deadline: April 28th**

Continuing Education

- March 14-15th** [Cognitive Orientation to Daily Occupational Performance \(CO-OP\) Approach Workshop](#)
- March 14-15th** [Lower Extremity Edema Management](#)
- March 17th** [Mobile Technologies as Cognitive-Behavioral Aids: Devices, Apps and Strategies](#)
- March 27th** Supported Communication for Adults with Aphasia (SCA)
marylou.halabi@albertahealthservices.ca
- March 31st** [Management of Eating, Drinking and Swallowing Problems in Adults: An Occupational Therapy Approach to Practice](#)
- April 25-26th** Sensory Rehabilitation Following Stroke workshop,
marylou.halabi@albertahealthservices.ca
- June 2nd** [Occupational Therapy Interventions for Chronic Stroke: Comparing Intensive Task-Specific and Occupation-Based Interventions](#)
- June 2-5th** [Canadian Association of Rehabilitation Nurses 2015 Conference](#)
- September 11th** [Aphasia Treatment Across the Modalities](#)
- September 17-19th** [Canadian Stroke Congress](#)
- October 4-6th** [Charting New Grounds – Interprofessional Approaches to Dysphagia Management](#)

Edmonton Rehabilitation Rounds

2nd Wednesday of every month from 1200 – 1300

* Register on the Telehealth Scheduler

March 11th, 2015

"Clinical Biomechanics in Post-Stroke Gait" presented by Justin Lewicke, GRH

April 8th, 2015

"Effective Communication Strategies for Clients with Aphasia" presented by River Wilson, GRH

May 13th, 2015

Janine Theben & Team from Ontario will present "Increasing Rehab Intensity using TA's"

June 10th, 2015

Tatiana Ogourtsova from McGill University will be presenting on visual perception