

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

Feature Program

Comprehensive vs. Primary Stroke Centres

What differentiates a comprehensive stroke centre from a primary stroke centre? Comprehensive stroke centers are tertiary hospitals which have stroke neurology services as well as neurosurgical and radiological intervention; they have access to a Computerized Tomography (CT) scanner; and they can administer thrombolytics such as tissue plasminogen activator (tPA). Primary stroke centers, on the other hand, have the ability to consult with a comprehensive stroke center through a Telehealth link; have access to a CT scanner; and are able to administer tPA; but they do not have neurosurgical and radiological intervention available.

Edmonton Zone is considered a comprehensive stroke center with two sites, the University of Alberta Hospital (UAH) and the Grey Nuns Community Hospital (GNCH). The UAH has access to neurosurgical/radiological services and the GNCH is within close proximity to transfer patients for neurosurgical/radiological intervention.

tPA has been shown to be an effective treatment in ischemic strokes; however, time is of the essence. With every one minute delay in treatment, 1.9 million neurons are lost. The Canadian Stroke Best Practice Guidelines recommend that patients be **treated within 60 minutes of arriving to hospital**. Stroke patients treated with tPA in 60 minutes or less experience a lower mortality and lower complication rate than those treated beyond 60 minutes from arrival. As such, the door to needle time (DTN) initiative has been undertaken at the only two sites in Edmonton (UAH and GNCH) that offer this treatment. Over the last year, at the UAH in particular, multiple process mapping sessions and meetings with different stakeholders have been conducted in order to streamline the process. Thanks to the efforts of all stakeholders, gains have been made in this area; previously siloed departments are now working together towards attaining and beating the timelines set out in the Stroke Best Practice recommendations.

Featured Stroke Best Practice Guideline

3.4: Acute Thrombolytic Therapy

The Recommendation states:

*“All patients with **disabling** acute ischemic stroke who can be treated within 4.5 hours of symptom onset should be evaluated **without delay** by a physician with stroke expertise (either on-site or by telemedicine/telestroke consultation) to determine their eligibility for treatment with intravenous tissue plasminogen activator (tPA) (Alteplase) [Evidence Level A].”*

Rationale Provided states:

*“Meta-analyses of the randomized controlled trials of intravenous Alteplase for acute ischemic stroke have shown that **thrombolytic treatment can reduce the risk of disability and death**, despite the risk of serious bleeding. ...Currently available data show clear evidence of benefit when given up to 4.5 hours after the onset of symptoms. The available evidence demonstrates a strong inverse relationship between treatment delay and clinical outcome; **eligible patients should be treated without delay**, regardless of when they present within the treatment window.”*

What is the Stroke Program, Edmonton Zone doing?

The Stroke Program Edmonton Zone is working to ensure that all patients who present to the Emergency Department (ED) with a stroke have access to treatment as quickly as possible.

Not all patients can be treated in comprehensive stroke centres. Therefore, protocols for the management of in-patient and walk-in strokes have been developed and are constantly being re-evaluated within other facilities in the zone, i.e. the Royal Alexandra Hospital, and the Misericordia Community Hospital.

When an **urgent TIA or acute stroke** (within 4.5 hours of symptom onset) presents to any non-comprehensive stroke centre, the most responsible physician in the ED needs to **contact RAAPID (1-800-282-9911)** as soon as possible to expedite treatment.

Canadian Stroke Congress & Vascular 2013

The 4th annual Canadian Stroke Congress took place in Montreal October 17 – 20th in conjunction with Vascular 2013. With a focus on vascular health, over 6,700 delegates representing four key medical conferences held in unison, were in attendance!

The following key messages were presented at Congress and Vascular 2013:

- [Ontario Stroke System saves hundreds of lives, thousands of hospitalizations, hundreds of millions of dollars](#)
- [Leading Canadian health organizations release a Vascular Declaration calling for urgent action on vascular disease](#)
- [High blood pressure during pregnancy could elevate the risk of a future stroke](#)
- [Health professionals learn to master the art of persuasion and improve the health of Canadians with secrets from the world of advertising](#)
- [Unlocking a brighter future for Locked-In Syndrome](#)
- [Study finds that participation in cardiac rehab programs can result in huge gains for recovery in stroke patients](#)

Gail Elton-Smith and Mary-Lou Halabi, from the Stroke Program, Edmonton Zone (SPEZ) presented “Taking Action Toward Optimal Stroke Care: Post Stroke Fatigue”, as part of the nursing stream. This lecture was repeated during Stroke Rehab Rounds on January 8th.

SPEZ collaborated with stroke physicians, stroke teams and community programs within Edmonton and throughout Alberta to produce and display the following posters at Stroke Congress:

- Alberta Stroke Improvement Initiative: Collaboration and Quality Improvement
- The University of Alberta Hospital Door-to-Needle (DTN) Process Improvement Initiative; Significant Changes Achieved Through Interdepartmental Collaboration
- Engaging Rehab Providers in a discussion about Stroke Best Practices: The Edmonton Zone Rehab Summit 2012
- Stroke Program, Edmonton Zone and the Stroke Recovery Association of Alberta Connections Project
- The Effectiveness of Stroke/TIA Education Upon Discharge From The Stroke Unit at the Grey Nuns Community Hospital

View these and other posters from Congress at: <http://posterdocuments.com/conferences/v/id/2013canadianstrokecongress-2013>

The 5th Canadian Stroke Congress will take place in Vancouver October 4 – 7, 2014.

Continuing Education

- January 16th:** Anticoagulant Update
* register on the Telehealth Scheduler
- January 29th:** [Treatment of Memory Disorders](#)
- January 31st:** [Every Nurse Symposium](#)
- February 8th:** Maximizing neuroplasticity through intensity, psychology and task adaptation in neurologic and geriatric rehabilitation – GRH, contact: lynda.marques@albertahealthservices.ca
- March 5th:** [Treatment of Executive Function Disorders](#)

On-Going Education:

Acute Stroke Case Rounds (Calgary Stroke Program)
* register on the Telehealth Scheduler

On-line Courses:

[Hypertension & Dyslipidemia Courses](#)

University of Alberta Inter-professional Online Graduate Level Certification Courses:

[Stroke Rehabilitation](#)

[Pain Management](#)

[Diagnostic Imaging Course for Physiotherapists](#)

Edmonton Rehabilitation Rounds

2nd Wednesday of every month from 1200 - 1300 at the Mazankowski Alberta Heart Institute (MAHI) room 2A6.066 or via Telehealth. Please register on the Telehealth Scheduler to ensure handouts can be distributed prior to the session.

February 12, 2014:

“Depression Screening for the Stroke Population”, presented by Sandra Large, Clinical Psychologist, GRH and Mary-Lou Halabi, SPEZ

March 12, 2014:

Presented by the Calgary Stroke Early Supported Discharge Team

April 9, 2014:

“Return to Driving after Stroke”, presented by Dr. Mario DiPersio, Physical Medicine & Rehabilitation, GRH

If you would like to present a case with your team, contact Gail Elton-Smith at 780-407-8729 or gail.eltonsmith@albertahealthservices.ca