

Sustainability Phase

South West LHIN update

The South West LHIN continues to support stroke system planning and quality improvement. In addition to their leadership of the Phase I and II project work, the South West LHIN Board of Directors recently approved \$90,000 in one time 2017/18 funding to support continued planning and evaluation of the Phase II Directional Recommendations that will provide further information to system planners on the following:

- Rehabilitation facilitator role
- Community Hubs
- Urgent TIA Clinics
- Stroke and TIA services in emergency departments
- Carotid revascularization services
- Early supported discharge

The LHIN Board also approved \$250,000 in one time funding for 2018/19 to support an Early Supported Discharge pilot in Huron Perth. This pilot will be informed by the results of this year's continued planning and evaluation of the Phase II recommendations.

On October 5 the LHIN launched the Sub-Region Integration Tables (SRIT) in Grey Bruce, Huron Perth, Elgin Oxford, and London Middlesex. The tables, with cross sector and system representation, will work to plan integrated care in the sub-regions for patients and providers. The SRITs will be considering how to link with and leverage existing structures, like the Regional Stroke Districts, in their efforts. For additional information on the launch of the SRITs please contact Kristy.McQueen@lhins.on.ca

Update: Phase I Realignment of Acute Stroke Services Project Extension

Full realignment of stroke services has occurred throughout the South West LHIN, except for London Middlesex Oxford (LMO) and Elgin Oxford Norfolk (EON) districts. The destination policies that will realign EON are currently being signed and the project is confident full realignment will occur within weeks.

Due to ongoing access and flow challenges at London Health Sciences Centre- University Hospital, full realignment has been delayed as they complete internal work to support the necessary capacity. To achieve all the Phase I realignment deliverables, the Oversight Committee is supporting an extension to the project to the end of March 2018, and continuing to meet until that time.

During the Stroke Oversight Committee quarterly meetings, all districts present a standardized template of issues, work plans and successes for review and discussion.



Linesman Kevin Brown, left, a millisecond before a skate blade sliced his neck – leading to a devastating stroke. As a result of his injury, neck guards became mandatory for all Ontario Hockey Association officials. See Kevin's stroke recovery story on page 6.

Photo courtesy of Cory Smith / Postmedia news

Top South West LHIN Stroke Districts Sustainability Priorities

1. Reducing “query strokes” arriving at Designated Stroke Centres

The literature states 20 to 40 percent of people transported to emergency departments via EMS with stroke symptoms are not actually having a stroke; instead, they have another disorder that is mimicking a stroke such as a migraine headache, hypoglycemia or multiple sclerosis. This is known as a query stroke. Paramedics in the Huron Perth and London Middlesex Oxford districts are working with their respective District Stroke Centres to develop processes to document the number of query strokes, why they occurred, and to identify educational opportunities to reduce the frequency. This work will flow into a regional strategy to address query strokes.

2. System surge protocol planning

Surge planning is an important consideration for the Stroke Realignment and Best Practice Care at District Stroke Centers (DSC). A small Working Group has met to discuss surge planning for stroke patients, recognizing that ideally if a DSC is unavailable (weather, equipment breakdown) the next best place for EMS to transport a query stroke patient is to the next closest DSC.

Although some districts such as Huron Perth have already implemented Stroke Bypass for EMS when they cannot accept stroke patients, other districts have either not created these agreements or, because of their geography, need to consider other options to support their patients (i.e., Grey Bruce). The Regional Working Group is supporting these conversations and each District is considering their Stroke Surge Planning and what is achievable within their local geography and available resources. Ultimately, this planning will support a broader South West LHIN Regional Surge plan that supports all patients and facilities.

3. Post-hospital and community care (Continuing Phase II work)

In addition to the new LHIN funding announced for continued planning and evaluation of the Phase II Directional Recommendations, there is a continued operational need to increase the capacity for post-hospital and community stroke care to provide exit strategies from inpatient acute and rehabilitation care for stroke survivors. Margo Collver, Regional Community & Long-Term Care Coordinator with the Southwestern Ontario Stroke Network, is working with the Community Stroke Rehabilitation Teams and various community partners across the south west region, to establish new aphasia groups as well as peer and caregiver supports. Despite the fact there is no additional operational funding, community partners have stepped up to help with these and other initiatives to ensure stroke survivors and their caregivers have the supports required to successfully re-integrate into their home communities.

4. Sustainability of QBP/best practices at Designated Stroke Centres

Throughout the past four years, organizations have made great commitments and strides to achieving stroke best practices. Recently the Oversight Committee committed to an ongoing evaluation of District Stroke Centers' (DSCs) implementation, achievement and sustainability of these best practice recommendations. The Project Team is working with DSCs to develop and implement the right tool for a semi-annual or annual evaluation. The outcome of this tool will support quality improvement discussions and communication between clinicians, planners and decision makers.

5. Repatriation agreements

Stroke repatriation agreements have been signed and implemented in all Districts to support care close to home for patients whose in-hospital stroke journey has been completed. Not only does this approach benefit patients, it also ensures adequate access/flow to the District Stroke Centers, allowing them to have the capacity to help other patients needing care. General feedback is that the repatriation agreements are working well, although occasionally individual cases do need to be escalated for resolution. The Southwestern Ontario Stroke Network Regional Team is taking an active interest in this issue and working with partners to support system process improvement.

Provincial Stroke Update: Expansion of window for Endovascular Therapy (EVT)

The current provincial EMS Prompt Card for Stroke requires EMS to transport patients within a 3.5 hour window from the last seen normal time to the nearest specialized stroke hospital capable of providing tPA, and to bypass sites that do not provide this level of care. In December 2017 the 3.5 hour window will be expanding to a 6 hour window so that patients can be evaluated at a District Stroke Centre for EVT. For most districts in the South West LHIN this Prompt Card change will not impact EMS services, as they already bypass diverting sites regardless of time. However there will be impacts in the London Middlesex Oxford and Elgin Oxford Norfolk Districts, which are being discussed at a Regional EVT Working Group, which is a sub-group of the Acute Care Advisory Committee. The operational impact on District Stroke Centers is expected to be relatively small; however, purposeful planning and discussion is required at the Regional EVT site (London Health Sciences Centre – University Hospital) so that increased volumes can be managed.

Updates: Local Stroke Working Groups (LSWGs) and District Stroke Councils

Elgin Oxford Norfolk (EON)

Since our last update, the Independent Living Suite on the Integrated Stroke Unit opened at St. Thomas Elgin General Hospital (STEGH). “This unit provides stroke patients with an opportunity to experience community reintegration prior to being discharged home,” says Sandi Pincombe, EON District Stroke Coordinator. “Here patients are encouraged to be independent with their self-care, preparing meals and participating in other activities of daily living (ADL). It also gives their caregivers an idea of the care the patient may require to be successful when they return home.”

STEGH’s Secondary Stroke Prevention Clinic (SSPC) is expanding patient teaching materials to support patients newly diagnosed with atrial fibrillation. These materials include handouts for patients referred for carotid stenosis and endarterectomies to help them know what to expect. To improve efficiency, the SSPC is also in the process of booking patient appointments electronically.

Grey Bruce

The Grey Bruce Local Stroke Working Group (LSWG) is focusing on sustaining the changes implemented with the realignment of stroke care in the South West LHIN. In Grey Bruce the realignment includes 11 hospitals, 3 hospital corporations, Grey County EMS, Bruce County EMS, home and community care and hundreds of health care professionals who worked to implement a successful realignment. We have now shifted focus to sustaining how and where stroke care occurs in Grey and Bruce counties. To support these changes, the LSWG is continuing to monitor data, with particular interest in stroke volumes in the ED, acute care, rehab, Stroke Prevention Clinic and Community Stroke Rehabilitation Team.

The Issues Log, a method of addressing challenges and opportunities for improvement, will help to guide the work in the coming months. To complement this work, a reporting form for all partners to share gaps in the process for Stroke Bypass/Repatriation Walk in Stroke Protocol was agreed upon.

“We were also fortunate to hear the evaluation report of the patient experience pre and post-stroke realignment. Patients felt there was very good communication which led to them having a good understanding of their plan of care in rehabilitation and with the community stroke rehabilitation team” says Grey Bruce District Stroke Coordinator Joan Ruston-Berge. “This work was completed by WorkHorse, an external consulting firm, and the results were echoed by the stroke survivor and spouse who sit on our committee.”

Next steps include revisiting the code stroke protocol, improving door to needle times for tPA, and the supporting the Endovascular Therapy (EVT) process. Providing EVT to those who live more than two hours from the Regional EVT site at London Health Sciences Centre (UH) will be less of a barrier with the changes coming in December to the EMS prompt card which will expand the window for tPA to six hours.

Huron Perth

Sustaining stroke care realignment continues to be a priority for the Huron Perth District Stroke Council. Members of the Council are working on a pre-registration process for stroke patients prior to arrival in the emergency department, as well as a process for communicating outcomes of identified stroke protocol patients. Education continues throughout the district to support the increase of stroke expertise across the continuum of care. Open communication between partners and timely follow-up to ensure quality care remains a priority. “Huron Perth appreciates the membership of patient partners on the District Stroke Council as well as on working groups to ensure processes reflect patient experience,” says Huron Perth District Stroke Coordinator Bonnie Thompson.

London Middlesex Oxford (LMO)

London Health Sciences Centre - University Hospital (LHSC – UH) continues to assess and treat stroke patients who are within the window for administration of tPA as required, and is managing the hyper-acute stroke patient volume. However, until access and flow challenges are improved, LHSC – UH will sometimes not be able to immediately accept stroke patients from local hospitals who are outside the window. As this impacts partners, the Steering Committee and Project Team are working with them to support best practice care.

Woodstock Hospital is pleased to announce and welcome physiatrist Dr. Pawel (Paul) Szpakowski who is supporting inpatient and outpatient rehabilitation programs including stroke rehabilitation. As well, Woodstock Hospital partnered with Oxford VON and Dale Brain Injury Services to offer an Integrated Aphasia Group last spring, with another session starting this fall.

Stroke dashboard

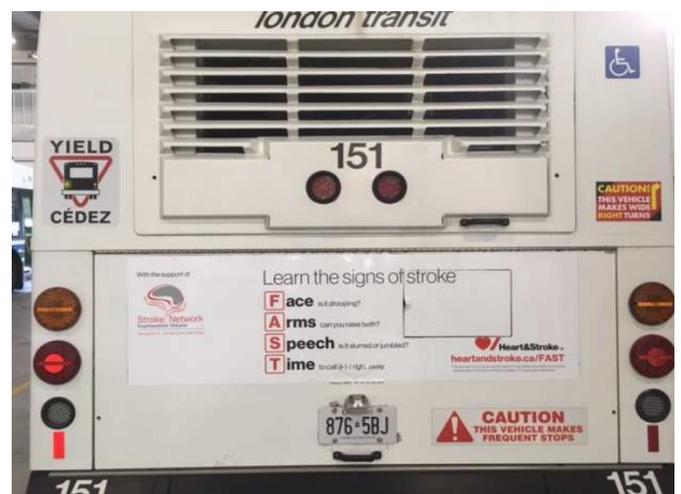
The report for fiscal year 2016/17 (April 2016 to March 2017) is now available and continues to show great improvements within the South West LHIN system of stroke care. Each District Stroke Centre has its own unique challenges and strengths, and each is committed to working with partners on quality improvement. The transition of the Regional Stroke Dashboard to Hamilton Health Sciences IDS (Integrated Delivery System) is progressing, with district testing and education anticipated in Q3.

A big thank you!

The Oversight Committee and all of the South West LHIN Stroke Project partners extend their appreciation to Physician Leads Dr. Bryan Young and Dr. Sunil Mehta, and the following project team members whose term on the South West Stroke Project expired September 30: Christine Iellamo, project facilitator; Anne Kay, communication consultant; and Emily Latourell, process improvement consultant. Their professionalism and commitment was an immense contribution to the project and directly enabled the significant system level improvements towards best practice stroke care in the South West LHIN.

Promoting FAST on London buses

Keep an eye out for these buses in London! The London Transit Commission is helping to promote FAST for twelve weeks on eight buses. “The LTC and the Heart and Stroke Foundation were terrific partners in their support of this initiative,” says Gwen Stevenson, Regional Prevention Coordinator with the Southwestern Ontario Stroke Network. “It’s exciting to promote FAST in the community this way. It will help more people be aware of the signs of stroke, recognize it in themselves and others, and call 911 to seek rapid specialized care. This improves the chances of better outcomes, which is what it’s all about.”



Education Update

Upcoming Event: [Case-Based Stroke Education Series #3](#) (CME-Accredited)

October 18, 2017, at 16:30 via OTN

Hosted by Dr. Gill at Alexandra Marine and General Hospital (Goderich)

In this ongoing education series three ambiguous stroke cases are presented and a stroke expert is on hand to provide additional insight and learnings on the cases.

Target audience: Physicians working in Designated Stroke Centers

Content: Case presentations and discussion

1. Seizure at time of tPA administration - management and workup recommendations
2. Management of TIA in a patient with atrial fibrillation who is already medically optimized at time of presentation to the emergency room
3. Continued discussion around aortic dissection and stroke - information about prognosis

Education Resources

The [stroke project education archives](#) have been updated on our website <http://swostroke.ca/swsp-education/>



Drop by and take a look! Here you will find links to many past events and current opportunities such as;

1. **The modular [online learning opportunity](#)** (CME-Accredited) – with a focus on the stroke processes realignment in the South West LHIN, stroke assessment and stroke mimics (case study format).
2. **District Specific Stroke Education Resource Lists**
These resource lists provide a one stop shopping experience for physicians. They contain active links to many archived video education sessions, slide decks, and relevant readings, many of which are CME accredited.

[Elgin Oxford Norfolk – \(Tillsonburg\)](#)

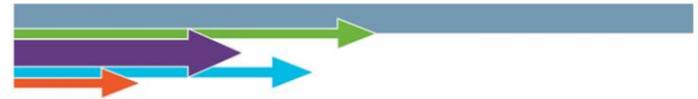
[Grey & Bruce](#)

[London Middlesex Oxford \(North of 401\)](#)

[Huron & Perth](#)

For additional information contact Jean Morrow - Regional Stroke Education Coordinator – at (519) 685-8500 x 34899, jean.morrow@lhsc.on.ca. Visit the South West Stroke Project Phase 1 Education web page for more information at www.swostroke.ca

South West Stroke Project Education



Education resources have been created to support the consolidation of stroke care in the South West LHIN into 7 designated stroke centre hospitals which provide specialized stroke care. This education draws upon three themes that were identified as needs through stakeholder engagement:

- Stroke best practices
- Processes to access stroke care at designated stroke centres
- Stroke care realignment

Currently, the education strategy focusses on the in-hospital portion of the South West Stroke Project.

[Upcoming Education Events](#)

[Physician-Specific Education](#)

[Nursing and Allied Health](#)

[Online Learning Modules for all Professional Groups](#)

[Emergency Medical Services \(EMS\)](#)

Next Steps

- Elgin Oxford Norfolk and London Middlesex Oxford Stroke Districts to finalize the EMS Destination Policy for local hospitals regardless of the time of patients' stroke symptom onset.
- Complete and analyze post-implementation patient focus groups/surveys and employee surveys.
- Complete the transition of the Regional Stroke Dashboard to IDS and enable access to standardized reporting in each district and regional oversight.
- Continue stroke education for physicians and new staff.
- Continue to evolve a sustainability evaluation framework that provides timely access to data to monitor performance, and respond to unintended consequences in a timely manner.
- Develop system-wide surge protocol planning to enable all stroke patients to have access to best practice stroke care in a Designated Stroke Centre

Our patients – Exciting time in stroke rehabilitation

To view a video of Kevin's story: <https://www.youtube.com/watch?v=ZbdeRT7i2uc>

It was a horrifying injury that shook the hockey world and changed regulations on mandatory safety gear for officials.

Kevin Brown was 25 and a linesman in an Ontario Hockey Association game when his neck was slashed by a skate blade while breaking up a fight. The injury led to a devastating stroke, which damaged approximately one third of Kevin's brain. But his remarkable recovery since the 2009 incident is a testament to the power of long-term stroke rehabilitation, the support of family and friends, and a young man's focused determination to get his life back.



Despite having a stroke in 2009 that damaged one third of his brain, Kevin Brown has made a remarkable recovery and today is a contract farmer.

After three weeks of acute care treatment Kevin was he was transferred to the Stroke Rehabilitation Program at Parkwood Institute to begin his long climb back to health. "Rehabilitation was intensive," says Kevin, who spent three months as an inpatient at Parkwood Institute. "The therapy started first thing in the morning and went pretty much non-stop all day."

Once discharged home, Kevin received care from the Huron Perth Community Stroke Rehabilitation Team (CSRT), and supplemented this therapy with his own workouts, which he continues to this day, along with private therapy to sustain the gains he has made through the years.

Dr. Robert Teasell, Medical Director of the Stroke Rehabilitation Unit at Parkwood Institute, and Associate Scientist, Lawson Health Research Institute, says there is a growing evidence of the value of long-term stroke rehabilitation. "Research shows the brain can continue to recover and improve for a long period of time after a stroke," he says. "The longer the therapy the better people become at relearning how to walk, regaining their independence, and performing higher level skills such as banking and grocery shopping."

The CSRT, adds Dr. Teasell, is an excellent example of extending rehabilitation beyond the hospital. There are three CSRTs in the South West LHIN that are located in the Grey Bruce, Huron Perth, and Thames Valley areas. “Our research shows the CSRTs have levelled the playing field for urban and rural stroke patients, with both recovering equally as well when they have the same access to post-hospital rehabilitation,” says Dr. Teasell.

Technology also played a role in Kevin’s recovery. “It’s an exciting time in stroke rehabilitation with many new technologies including robotics, electrical stimulating orthotic devices, and peroneal nerve stimulators improving motor function,” adds Dr. Teasell. Kevin also received repetitive transcranial magnetic stimulation treatments to help ease the depression that arose with his transition to his new life.

Kevin has made excellent progress since he came to Parkwood Institute eight years ago unable to walk and requiring assistance with the most basic tasks. Today he works with his father in contract farming, taking pride in his knowledge of the massive planter he operates. In addition to the crops that flourish under his care, Kevin has also made the hockey world a safer place. In January 2010, less than two weeks after his injury, neck guards were made mandatory for all Ontario Hockey Association officials.



After his stroke Kevin Brown’s recovery journey began with three months of intensive inpatient stroke rehabilitation at Parkwood Institute. Some of the inpatient stroke rehabilitation team, from left, physiotherapist Karen O’Neil, Kevin, Dr. Robert Teasell, and occupational therapist Trish Shoniker

Kevin’s story was covered by:

CTV: https://intra.sjhc.london.on.ca/news-clipping/clips/news_clipping.php?id=OSY4NRS3J

Stratford Beacon Herald: <http://www.stratfordbeaconherald.com/2017/09/14/former-oha-linesman-kevin-brown-moving-on-with-his-life-after-suffering-a-stroke-almost-eight-years-ago>

London Free Press: <http://www.lfpress.com/2017/09/14/former-oha-linesman-kevin-brown-moving-on-with-his-life-after-suffering-a-stroke-almost-eight-years-ago>

Our London: <https://www.ourlondon.ca/news-story/7561535-referee-rebounds-from-life-altering-stroke/>

Our patients – Getting Cora back on her feet again

View a video of Cora's story: <https://www.sjhc.london.on.ca/our-stories/cora-is-getting-back-on-her-feet>

In 2014 a series of medical events turned Cora King's world upside down, but the Community Stroke Rehabilitation Team (CRST) helped make her world right again.

Cora, then 37, was living in a tranquil rural setting in Middlesex County, leading a busy life caring for her husband and two young boys and working at a community health centre. She had the first inkling something might be wrong when she started dropping things and had trouble moving her legs.

After many diagnostic tests, Cora was given devastating news – she had a brain tumour. In the weeks following, she had a seizure, then pneumonia, and finally a stroke. She was gravely ill, but fine medical care, the love and support of her husband, and her steely determination carried her through.

Once Cora's health stabilized, she continued her recovery at Parkwood Institute. When she was discharged home in January 2016 the CSRT swung into action.

"The health care professionals on the CSRT provide intensive rehabilitation in clients' homes so they can achieve their rehabilitation goals," explains occupational therapist (OT) Martha Scott. "We take a very holistic approach to care, so clients can become more independent and reintegrate into their community."

The CRST is made up of health care professionals from various disciplines. As an OT, Martha helped Cora relearn activities of daily living such as dressing and showering. The team's physiotherapist helped Cora learn to walk again, and the speech language pathologist and OT assisted her with thinking skills such as memory and scheduling. The therapeutic recreation specialist taught her activities like colouring and knitting to help retrain hand dominance. The social worker supported Cora and her husband in addressing their new family roles, and the nurse provided education about medications and healthy lifestyle choices. Finally, the rehabilitation therapist practiced therapy plans with Martha so she could meet her goals.

"I believe one of the reasons Cora had an incredible recovery is because she is so motivated," says Martha.

"My desire to be independent outweighed my frustration with my physical limitations," says Cora. Members of Cora's church were supportive and offered to alter a pew to fit her wheelchair. "I said no thank you; they were amazed when I walked into church with just a quad cane."



With her right arm and hand affected by the stroke, Cora King, left, is guided by Occupational Therapist Martha Scott in learning new way to do tasks such as washing dishes.

These days Cora is once again living a full life managing household chores, attending a day program, going to her children's activities and socializing with friends and family. With her can-do attitude, Cora's advice to others who have had a stroke is, "Never stop trying—if you think you can you will."

Cora's story was covered by:

CTV and Hospital news: <http://hospitalnews.com/community-stroke-rehabilitation-team-getting-patients-back-feet/>

F.A.S.T video promotion

Please continue sharing the 30-second F.A.S.T. [video](#) specific to your stroke district to encourage people to call 911 if they experience the signs of stroke.

South West Stroke Project web pages

[Click here](#) to view the South West Stroke Project web pages—a central resource for upcoming education opportunities and tools to help you communicate about the South West Stroke Project work.