CESN TIMELINE

Key Provincial and Regional Influences

CENTRAL EAST STROKE NETWORK

Intentions:

This document is intended to inform the discussion to occur at the July 12th, 2021 CESN Regional Steering Committee meeting, which will focus on the Ontario Stroke Report as it relates to CESN performance.

The timeline in this document captures **key provincial and regional influences related to specific performance metrics**:

1. implementation of, and equitable access to best practices for stroke across LHINs, specifically:
    - interprofessional stroke units (acute and rehabilitation)
    - earlier access to rehabilitation
    - increased intensity of stroke rehabilitation, and
    - increased community Stroke Rehabilitation (outpatients and in-home / regular stream and Early Supported Discharge stream)
2. the need for a critical mass (volume that will sustain an interprofessional team to provide best practice levels of care)
3. interprofessional teams with stroke expertise
4. integration of services to enhance transitions, linkages

This document is not intended to be all encompassing of every regional and provincial influence over that period of time, nor does it reflect all relevant activities.

For example, Cross-regional & regional engagement of senior leaders in system planning has occurred through numerous meetings and discussions held with senior leaders from LHINs, hospital organizations, Home & Community Care Support Services, stroke planning committees etc. These engagement opportunities are not directly reflected on this timeline, however they have been important to engage senior leaders in system change efforts. At these meetings, information has been shared regarding priorities, alignment with provincial directions and best practices, stroke services mapping, draft conceptual models and innovative solutions to support understanding of how core elements of care can be achieved. Many of these meetings, particularly those with the Central and Central East LHIN stakeholders, have been in collaboration with the Toronto Stroke Networks.

Developed: July 5, 2021

Click arrows to navigate between pages

1997 – ongoing

Historical Perspectives of the Ontario Stroke System

Provincial and Regional

Coordinated Stroke Strategy - In 1997 the Heart & Stroke Foundation of Ontario (HSFO) convened a province-wide group to develop a framework for stroke care. One year later, in fall 1998, the Coordinated Stroke Strategy (CSS) was launched. The CSS was a three-year demonstration project to test a model of region-wide coordinated stroke care across the continuum of care in four regions of Ontario (South East, South West, Central West and West GTA). Each of the four regions pilot tested a specific aspect of the proposed model of care. In May 2000, a final report was submitted to the Ministry of Health and Long Term Care (MoHLTC) entitled 'Towards an Integrated Stroke Strategy for Ontario: The Report of the Joint Stroke Strategy Working Group'. The report called for organization of stroke care on a regional basis across the province.

Ontario Stroke System - On June 19, 2000, the MoHLTC endorsed the report and formally announced their support of the Ontario Stroke System (OSS). The purpose of the OSS was to ensure that all Ontarians had access to appropriate, quality stroke care across the continuum and in a timely manner.

Regional Stroke Centres The province was divided into regions, with Regional Stroke Centers, secondary prevention clinics, District Stroke Centers, community hospitals, rehabilitation facilities, community care, and long-term care facilities, where stroke care was organized and provided according to best practices. Regional Stroke Centers (including Enhanced District Stroke Centres) provided organization and structure across the continuum to the entire region.

Central East Stroke Network - Originally the geography of Central East was captured in the North and East GTA Region with Sunnybrook as the Regional Stroke Centre. In 2005/06 the regional boundaries changed and the Central East Stroke Network (CESN) (Durham, HKPR, York and Simcoe/Muskoka) was recognized as its own region with Royal Victoria Regional Health Centre (RVH) assigned as the Enhanced District Stroke Centre. The first meeting of the **steering committee of the CESN** was held on April 4, 2005.

CESN District Stroke Centre Assignments - https://cesnstroke.ca/about/ **(note names of hospitals reflect current naming)**

- 2002/03 Royal Victoria Regional Health Centre
- 2002/03 Mackenzie Health Richmond Hill Hospital
- 2003/04 Peterborough Regional Health Centre
- 2005/06 Royal Victoria Regional Health Centre assigned as Enhanced District Stroke Centre
- 2005/06 Muskoka Algonquin Healthcare - Huntsville
- 2008 Lakeridge Health Oshawa – In November 2008 the Central East LHIN, with the support of the OSS, announced that Lakeridge Health Oshawa was designated as a District Stroke Centre.

Ontario Stroke Network - In 2006 the OSS Provincial Stroke Steering Committee conducted a review and outlined recommendations for future accountabilities. The final report, 'Strategic Accountabilities and Reporting Relationships Plan' also identified the need for the OSS to develop a strategic plan. In Jan 2007 the Provincial Stroke Steering committee launched a strategic planning process. In May 2007 the strategic plan was approved. One of the strategic directions was to establish an appropriately resourced organizational structure. In April 2008, the OSS Organizational Design proposal was released. The leadership and coordination structure for the OSS was named the Ontario Stroke Network (OSN). A governance structure was identified as the Provincial Coordinating Council. In May 2008 the OSS Provincial Stroke Steering Committee approved the plan, then disbanded, and the OSN was formed.

CorHealth Ontario - In June 2016, the OSN and Cardiac Care Network (CCN) merged to form one organization, with a mandate spanning cardiac, stroke and vascular care in the province. On June 22, 2017, after a year of transition, the new entity became CorHealth Ontario. CorHealth Ontario is currently working with Ontario Health (OH) and the MoHLTC regarding transition of CorHealth Ontario into Ontario Health. - https://www.corhealthontario.ca/

2010-11

Mosaic of Stroke
Regional

3 Stakeholder Sessions:
- March 30, 2010 (Barrie)
- December 1, 2010 (Richmond Hill)
- November 22, 2011 (Oshawa)

The sessions:
- utilized the power of stories to explore issues of system integration and transformation
- focused on crossing the chasm between early adopters and pragmatic leaders (those that have a more cautious, wait-and-see approach)
- focused on engaging pragmatic strategic-level stakeholders, to go beyond endorsement to commitment
- prompted collaborative action learning
- developed a shared, enriched understanding of best and emerging practice
- created a shared plan for moving forward to improve outcomes for people with stroke and next steps to improve the stroke care system

2011

Case for Change
Regional

The development of a business case arose out of the recommendations of the first Mosaic of Stroke session.

A comprehensive consultative approach informed the development of the case for changing to a new model of stroke rehabilitation in NSM LHIN (as an early adopter); to determine stroke system design considerations for future planning and siting of stroke services across the continuum; and to develop an implementation roadmap.

The Four Pillars of the 'Case for Change' were:
- Establish interprofessional acute and rehabilitation stroke units;
- Earlier access to stroke rehabilitation
- Increase intensity of rehabilitation / front-end loaded rehabilitation
- Increase access to outpatient / ambulatory rehabilitation

The recommended model to achieve these outcomes was an integrated stroke model of care beginning with the establishment of 3 integrated stroke units for inpatient stroke care across the North Simcoe Muskoka LHIN.

2011

Stroke Reference Group
Provincial with CESN Representation

As part of its involvement with the MoHLTC's Rehabilitation and Complex Continuing Care Expert Panel the Ontario Stroke Network established the Stroke Reference Group (SRG); a panel of regional experts in stroke care. This group was asked to make best-practice recommendations for stroke care that could help facilitate smoother flow of patients through the healthcare system.

Recommendations released in November 2011 included the following:

- Timely transfer of appropriate patients from acute facilities to rehabilitation
  - Ischemic strokes to rehabilitation by day 5 on average
  - Hemorrhagic strokes to rehabilitation by day 7 on average

- Provision of greater intensity therapy in inpatient rehabilitation
  - 3 hours of therapy per day
  - 7-day a week therapy

- Timely access to outpatient/community-based rehabilitation for appropriate patients
  - Early Supported Discharge with engagement of Community Care Access Centres* and allied health professionals (contracted through their rehabilitation and nursing provider agencies)
  - Mechanisms to support and sustain funding for interprofessional outpatient (e.g. day rehabilitation) and/or community-based rehabilitation
  - 2-3 outpatient or Community-based allied health professional visits/ week (per required discipline) for 8-12 weeks
  - In-home rehabilitation provided as necessary

*now known as Home and Community Care Support Services

2011-ongoing

Evolving Critical Mass for Stroke Units

Provincial

In 2011, the Case for Change utilized a volume of **165 for acute stroke units**, based on mortality data, and **125 as a minimum for integrated stroke units**, based on expert opinion.

In 2013, and in subsequent revisions in 2015 and 2016, the QBP clinical handbook identified that best practices for acute inpatient admissions included: "To optimize outcomes and efficiencies, stroke volumes should be **at least 165 ischemic stroke patients per year**, per institution; greater volumes are likely to confer additional benefits (based on an analysis of the Discharge Abstract Database, 2002–2009). The **appropriate critical mass for an integrated stroke unit (a specialized inpatient stroke unit that provides both acute and rehabilitation interventions) has not been determined.**" (2016, p 58).

In 2015, research on critical mass was published entitled, "Does the Volume of Ischemic Stroke Admissions Relate to Clinical Outcomes in the Ontario Stroke System?" (Hall, Fang, Hodwitz, Saposnik & Bayley, 2015). They found that stroke patients treated at smaller volume hospitals had a 47 per cent higher risk of dying in the first week compared to patients admitted to larger volume hospitals, and a 37 per cent higher risk of dying after 30 days. However, they found no statistically significant difference in rates of death after stroke between medium and high volume hospitals. Among the study's findings:

- Annually overall, there were 800 deaths within seven days of hospital treatment for ischemic stroke and 1,600 deaths within 30 days (mortality of 7.6 per cent and 15.3 per cent, respectively).
- **Lower stroke volume hospitals in Ontario saw an average of 29 stroke patients per year; medium volume hospitals saw an average of 156 cases per year; and higher stroke volume hospitals admitted an average of 290 stroke patients yearly.**
- Using adjusted modelling, the researchers determined that **875 deaths could potentially be avoided if patients seen at small volume hospitals were referred to hospitals that admitted at least 126 ischemic stroke patients annually.**
- **All hospitals with 165 or more ischemic stroke admissions per year had mortality rates that were at or below the provincial rate, suggesting a possible threshold for admissions..**

The findings demonstrated that by consolidating acute stroke care in each region in Ontario, we can ensure that every person experiencing stroke will receive the best possible care - http://circoutcomes.ahajournals.org/lookup/suppl/doi:10.1161/CIRCOUTCOMES.115.002079/-/DC1

In 2019, CorHealth Ontario's bundled care preparations included the release of **DRAFT** recommendations for Stroke Units:

- All confirmed stroke patients should be admitted to a designated stroke unit as soon as possible (ideally within 24 hours of hospital arrival).
- The stroke team should consist of a dedicated interprofessional stroke team with expertise in stroke care inclusive of MD, nursing, OT, PT, SLP, SW, RD.
- Complete initial assessment within 24-48 hours of admission using appropriate validated tools.
- **To optimize outcomes & efficiencies, admitted stroke volumes should be at least 125 stroke patients/year/institution for acute stroke units and at least 100 stroke patients/year/institution for integrated stroke units (a specialized IP stroke unit providing both acute and rehabilitation services).**
- **Stroke Unit volume requirements include all stroke patients, including ischemic and hemorrhagic stroke, EVT and TIA (i.e., patients qualifying under Special Project 340 in the DAD)**

CENTRAL EAST STROKE NETWORK

2012

The Impact of Moving to Stroke Rehabilitation Best Practices in Ontario: Final Report

Provincial

This report estimated the potential economic impact of adopting the Stroke Reference Group's proposed stroke rehabilitation best-practice recommendations in Ontario.

The report:

- built a high-level, and conservative, case for promotion of best-practice
- broadly demonstrated the potential economic impact from an Ontario-wide perspective.

Estimates suggested that better application of stroke best-practice related to earlier transfer to rehabilitation holds the potential to:

- make nearly 45,000 acute bed days available annually
- free up nearly $26M annually to support stroke patients to reintegrate into the community
- improve chronic disease management.

https://www.corhealthontario.ca/The-impact-of-moving-to-stroke-rehabilitation-best-practices-in-Ontario-OSN-Final-Report-Sept-14-2012.pdf

2012-13

Health System Funding Reform: Quality Based Procedures

Provincial

The MoHLTC established Health System Funding Reform (HSFR) in Ontario in 2012 with a goal to develop and implement a strategic funding system that promotes the delivery of quality health care services across the continuum of care and is driven by evidence and efficiency. HSFR is based on the key principles of quality, sustainability, access, and integration, and aligned with the four core principles of the Excellent Care for All Act (ECFAA):

- Care is organized around the person to support their health;
- Quality and its continuous improvement is a critical goal across the health system;
- Quality of care is supported by the best evidence and standards of care; and
- Payment, policy, and planning support quality and efficient use of resources.

Since its inception in April 2012, the MoHLTC has shifted much of Ontario's health care system funding away from global funding allocation toward a funding model founded on payments for health care based on best clinical evidence-informed practices.

HSFR comprises two key components:

- Organizational-level funding, which will be allocated as base funding using the Health-Based Allocation Model (HBAM); and
- Quality-Based Procedure (QBP) funding, which will be allocated for targeted activities based on a "(price x volume) + quality" approach premised on evidence-based practices and clinical and administrative data.

https://www.health.gov.on.ca/en/pro/programs/ecfa/funding/hs_funding.aspx

2013

Regional Economic Overview

Provincial with CESN Representation

This series of reports was designed to replicate portions of the provincial economic evaluation previously noted, from the perspective of the each respective Local Health Integration Network (North Simcoe Muskoka, Central & Central East LHINs).

It was not designed as a comprehensive economic evaluation, but rather to present contextual information in a way that helps guide regional discussions about local stroke care.

It was developed to support regional representatives in assessing their stroke system, identifying areas where improvements are possible and informing discussions with local healthcare providers regarding system reform.

https://www.corhealthontario.ca/resources-for-healthcare-planners-&-providers/rehabilitation/regional-economic-assessments

2013-15

Early Supported Discharge

Provincial with CESN Representation

Early Supported Discharge (ESD) is defined as “a form of rehabilitation designed to accelerate the transition from hospital to home through the provision of rehabilitation therapies delivered by an interprofessional team, in the community. It is intended as an alternative to a complete course of inpatient rehabilitation and is most suitable for patients recovering from mild to moderate stroke” (Dawson et al., 2013, p. 36)

In the Fall of 2013, ESD was identified as a provincial priority by the 11 regional stroke networks of Ontario. To better address this priority, a Provincial Integrated Working Group was formed. The main purpose of this working group was to support the implementation of ESD programs in Ontario.

https://www.corhealthontario.ca/resources-for-healthcare-planners-&-providers/stroke-general/piwp/esd

Regional

Following the PIWP work, the ESD deliverables were disseminated to key stakeholders in CESN and concepts of ESD integrated into system planning.

2013-15

CESN's Stroke Rehabilitation and Transition Model

Regional

Developed by the Central East Stroke Network as part of a comprehensive stroke system redesign initiative. It was developed in accordance with the Canadian Best Practices for Stroke Care and informed by extensive stakeholder consultation including a Value Stream Mapping event, local community forums and provincial expert consultation. Input was solicited from frontline care providers, administrators, community service providers, caregivers and people living with stroke from across the LHIN and the care continuum.

Key features are:

- Enables standardized, equitable services for people with stroke.
- Cross continuum model that encompasses EMS, ED, Integrated Stroke Unit care, Community Stroke Program (community rehabilitation and re-integration and stroke prevention services).
- Linkages between sectors of the continuum

The model was developed to advance planning in NSM LHIN with the intention to spread to other LHINs in the network.

Adopted by the NSM LHIN as the NSM LHIN Integrated Stroke Program Model.

The model was utilized in other regions to inform system change efforts.

2013-16

Stroke Unit Toolkit

Provincial with CESN Representation

Stroke patients who receive care on a specialized stroke unit have an increased likelihood of survival, return to the home, and independence post stroke (Casaubon et al., 2015).

In the Fall of 2014, a provincial integrated working group was formed to develop a stroke unit toolkit. The aim of this toolkit was to provide organizations with a resource that would assist with the development and improvement of new and or existing stroke units.

https://www.corhealthontario.ca/resources-for-healthcare-planners-&-providers/stroke-general/piwp/stroke-unit-toolkit

Regional

Following the PIWP work, the Stroke Unit deliverables were disseminated the key stakeholders in CESN and concepts of the stroke unit toolkit work were integrated into system planning.

2013-16

QBP Clinical Handbook

Provincial

In advance of the QBP funding reform implementation, Health Quality Ontario and the MoHLTC released the Quality-Based Procedures Clinical Handbook for Stroke in January 2013. The standards were updated in February 2015 and December 2016.

In this document, which is aligned with Canadian Stroke Best Practice Recommendations for Stroke Care, a summary of recommended practices developed in coordination with the stroke episode of care expert panel are reported.

Notable recommendations include:

Acute Care

- access to stroke thrombolysis for eligible patients
- provision of acute stroke care on a specialized, geographically defined stroke unit with a suggested minimum annual volume of 165 ischemic stroke admissions
- 5 day LOS for ischemic stroke patients and 7 day for hemorrhagic

Inpatient Rehabilitation

- 7-day a week admissions to inpatient rehabilitation
- 1:6 therapist to bed ratios for PT and OT in inpatient rehabilitation and 1:12 for SLP
- 3-hours of direct task-specific therapy per day for at least six days a week

https://www.health.gov.on.ca/en/pro/programs/ecfa/docs/qbp_stroke.pdf

2013 - ongoing

Accreditation Canada's Stroke Distinction

Regional

What is Stroke Distinction?
Accreditation Canada's Stroke Distinction program follows standards based on the nationally-recognized Canadian Stroke Best Practice Recommendations.

It also includes the use of stroke-specific protocols, client and family education and an excellence and innovation project. The program is available to organizations and networks that provide acute and/or inpatient rehabilitation services and have a dedicated stroke services program or unit.

CESN organizations that have achieved stroke distinction:

- 2013 - Mackenzie Health (acute and rehab)
- 2015 - Mackenzie Health (acute and rehab)
- 2015 - Royal Victoria Regional Health Centre (acute and rehab)
- 2015 - Lakeridge Health (acute and rehab)
- 2018 - Peterborough Regional Health Centre (acute and rehab)
- 2019 - Royal Victoria Regional Health Centre (acute and rehab)

https://accreditation.ca/stroke-distinction/

2014

North Simcoe Muskoka Home & Community Care Support Services - Stroke Pathway

Regional

The NSM Stroke Pathway provides in-home stroke rehabilitation services to patients discharged from a hospital inpatient rehabilitation program: Inpatient Rehab or Complex Continuing Care – Long Term Long Duration Rehabilitation Program or equivalent.

The purpose of the pathway is to enhance the functional and social outcomes of stroke clients transitioning from hospital to home while providing timely rehabilitation services in keeping with Stroke Best Practice.

Overarching rehabilitation goals are to improve functional abilities, which in turn enhance reintegration into the community, mobility, activities of daily living, balance, recovery of arm/leg function and trunk control; cognition; perception; pain management; mental health, language and communication function; and swallowing.

OT Goal: Home safety and optimal functioning in ADL's/IADL's
- 6 visits over 16 weeks

OT Goal: Optimal Cognitive and Perceptual functioning
- 6 visits over 12 weeks

PT Goal: Safe mobility and return of motor function
- 10 visits over 4 - 10 weeks

SLP / Nutrition Goal: Prevent aspiration
- 6 visits over 12 weeks

SLP Goal: Optimal communication
- 10 visits over 16 weeks

SW Goal: Develop strategies to enhance coping and facilitate adjustment to altered health status
- 6 visits over 12 weeks

LHIN Care Coordinator Goal: Promote independent functioning and re-integration into the community
- home visit as required

Eligibility Criteria:
- stroke diagnosis
- patient being discharged from an inpatient stroke rehabilitation program (acute/slow stream or equivalent)
- require at least two therapy services
- have long-term goals related to maximizing independence and community reintegration
- reasonable expectation that the patient will benefit from services and improve
- requires supervision or assistance with ADLs including bathing, personal hygiene, dressing lower body or locomotion.
- If the patient is under age 65 with a stroke or ABI diagnosis with a cognitive impairment and requires more intensive community integration services consider referral to the Acquired Brain Injury (ABI) Collaborative.

CENTRAL EAST STROKE NETWORK

2014-15

A Business Case for Coordinated Outpatient and Community-Based Stroke Rehabilitation and Stroke Prevention in the North Simcoe Muskoka LHIN

Regional

This report provided a comparison between status quo and an enhanced outpatient and community-based rehabilitation system in the NSM LHIN. The reported concluded:

- Evidence suggests that earlier access to rehabilitation post stroke, Early Supported Discharge and outpatient rehabilitation, all improve patient outcomes.
- The Stroke Rehabilitation and Transition Model (SRTM) includes these practices and is based on best practices and extensive consultation (click here to return to Page 6 for more information on CESN's SRTM).
- Adoption of the SRTM would be in the best interest of patients and, if fully implemented and appropriately resourced, would optimize patient outcomes.
- Data suggest that, on average, full adoption of the SRTM in the NSM LHIN would cost an average of $287 less per patient than status quo, making approx. $184,841 available annually for re-investment.
- Adoption of SRTM is expected to reduce both acute and inpatient rehab LOS dramatically among patients currently admitted to these care settings.
- This would reduce in-hospital expenditure, and would free capacity for patients currently unable to access the right level of care; especially rehab.
- It is anticipated that this will also contribute to fewer CCC and LTC admissions regionally as access to acute stroke units and inpatient rehab facilities improves.

2014-17

Rehabilitation Intensity

Provincial with CESN Representation

Quality-Based Procedures (QBP) for stroke state that "stroke patients should receive, via an individualized treatment plan, at least 3 hours of direct task-specific therapy per day by the interprofessional stroke team for at least 6 days per week" (Health Quality Ontario & Ministry of Health Long-Term Care, 2016 and p. 75)

In the Fall of 2014, a provincial integrated working group was formed to support rehabilitation programs and integrated stroke units across Ontario with the provision of greater rehab intensity and a standardized approach to collecting rehab intensity data.

https://www.corhealthontario.ca/resources-for-healthcare-planners-&-providers/stroke-general/piwp/rehab-intensity

2014 - ongoing

Meeting the Stroke Unit Definition

Regional

In 2014, the Ontario Stroke Network (OSN) revised the definition of stroke units. The revised definitions endorsed by the OSN (as cited by the Stroke Unit Toolkit) are as follows:

Acute Stroke Unit (ASU): A geographical unit with identifiable **1** co-located beds **2** occupied by stroke patients on average 75% of the time **3** and has a dedicated interprofessional team with expertise in stroke care with the following professionals at a minimum nursing, physiotherapy (PT), occupational therapy (OT), speech language pathologist (SLP).

Integrated Stroke Unit (ISU): Acute and rehabilitation beds integrated on a geographical unit and both components meet the above ASU definition.

Stroke Rehabilitation Unit: An Inpatient Stroke Rehabilitation unit that meets the above ASU definition.

1 e.g. 5A-7, 5A-8, 5A-9, 5A-10, 5A-11
2 co-location is the act of placing multiple entities within a single location
3 e.g. if the stroke unit is a 4 bed unit, 3 out of those 4 beds must have a stroke patient in them on average 75% of the time.

Listed below are CESN organizations that have self-identified as meeting the above definitions (ASU or ISU) and year of confirmation. Note that some of these organizations also identified as having a stroke unit prior to aligning with this definition.

- **2014 - Mackenzie Health**
- **2014 - Lakeridge Health Oshawa**
- **2014 - Peterborough Regional Health Centre**
- **2015 - Royal Victoria Regional Health Centre**
- **2015 - Ross Memorial Hospital**
- **2017 - Orillia Soldiers' Memorial Hospital**
- **2019 - Markham Stouffville Hospital**

2015

Integrated Funding Model

Provincial

In 2015, the MoHLTC issued a call for Expressions of Interest from the health system to participate in an Integrated Funding Model (IFM) initiative.

The goal of the IFM initiative was to test innovative approaches to integrate care and funding over a patient's episode beginning in acute care and including home/community care post-discharge.

The NSM LHIN in parternship with the CESN submitted an EOI. Refer to the next box on IFM for more information.

Out of fifty proposals, six were ultimately selected for wave 1 including one regarding a stroke population.

The stroke IFM project was led by Sunnybrook Health Sciences and was titled One Client, One Team - Improving Stroke Care in the Central and Toronto Central LHINs (Toronto Central and Central LHINs)

https://www.health.gov.on.ca/en/pro/programs/ecfa/funding/ifm/default.aspx

2015-17

Integrated Funding Model

Regional

The North Simcoe Muskoka LHIN in partnership with the Central East Stroke Network submitted an Expression of Interest to the MoHLTC Integrated Funding Models (IFM).

The proposal was well received and was selected for interview to assess regional readiness to implement the proposal. Although not one of the final six projects selected for Wave 1, the MoHLTC indicated that the proposal was to be considered for Wave 2 of IFM funding to commence April 1, 2016.

The feedback received suggested that there was a need to advance many of the planning elements, with a focus on the Collingwood/Barrie area, to be ready for actual implementation April 1, 2016. As a result of this feedback, the NSM LHIN funded a project manager to support an Integrated Stroke Program in the southern part of the NSM LHIN. This project was launched December 15, 2015. No further announcements were made by the MoHLTC regarding Wave 2 intake.

The NSM work was divided into two major themes. A cross sector working group was established to move the quality elements forward and the NSM HSFR Committee focused on the funding issues.

Early evaluation of the NSM's Integrated Stroke System in 2017 suggested that:

- there was support for the concept of an integrated stroke system,
- there were challenges with early implementation,
- that elements of the project had been implemented but it was difficult to test concepts without implementation funding.

Orillia Soldiers' Memorial Hospital and Royal Victoria Regional Health Centre were selected to participate in the QBPs Bundled Care for Hips and Knees provincial pilot projects in late 2017. The NSM LHIN sent communication to the CEOs indicating that LHIN organizations would advance learning through this work which would facilitate learning for future bundled care models. Due to the complexity of this work and availability of resources, organizations were asked to pause their bundled care payment efforts for the stroke project and focus on the MSK pilot. The communication went on to say that the LHIN did expect organizations to continue stroke quality improvement initiatives within the sub-regions.

2016-18

Community / Outpatient Rehabilitation

Provincial with CESN Representation

In the fall of 2016, stroke rehabilitation in the community and outpatient setting was identified as a provincial priority by the eleven regional stroke networks. To address this priority, a working group consisting of clinical experts from across the province, was formed.

The main purpose of this provincial group was to create a repository of tools and resources to support the implementation of stroke best practices in the community and outpatient setting as outlined by the Canadian Stroke Best Practice Recommendations and the Quality-Based Procedures: Clinical Handbook for Stroke (Acute and Post-Acute) December 2016.

https://www.corhealthontario.ca/resources-for-healthcare-planners-&-providers/stroke-general/piwp/community-outpatient

Following the PIWP work, the deliverables were disseminated to key stakeholders in CESN and concepts of the work were integrated into system planning.

2017-ongoing

Rehabilitation Intensity

Regional

- Shared provincial resources to support uptake or rehabilitation intensity (RI) regionally (FAQ, bulletins, pocket cards, etc.).
- Liaised with organizations regarding development of RI data collection methods
- Provided education regarding definition of RI to rehab teams
- 2017-18 Site visits at each inpatient rehabilitation facility to meet with teams to review RI guidelines, discuss and develop QI plan to ensure measuring and recording accurately; identify factors contributing to stroke patients not receiving 3 hours of RI per day, 6 days per week (fishbone diagrams developed); identified opportunities for improvement
- 2017-18 Regional RI Forum (review of the evidence by Dr. Bayley, patient experience, brag and steal presentations, HQO led QI exercise to identify AIM, Measure, Change ideas and PDSA
- 2017-18 - Led development of RI learning module and quiz. Support for uptake in the region is ongoing. Ongoing review and update of quiz also continues. Presented regarding quiz at the World Stroke Congress.
- 2018-19 Site visits to review data and discuss QI
- 2018-19 partnered with TSN to hold 3 RI round table sessions
- 2018-present - Led development of 4 Provincial RI newsletters
- 2019 - ongoing - developed Rehab NRS data reports including RI data to provide timely feedback on current status. Shared quarterly. Frequently requested to review with teams during team meetings.
- ongoing support for QI efforts including attending QI sessions/discussions at LH, MSH, RMH, ...

2018

Central East Home and Community Care Support Service - Stroke Pathway

Regional

On May 1st 2018 a Stroke Pathway Committee embarked on the development of a dedicated evidence based stroke pathway to maximize recovery and maintain patients at home.

Inclusion Criteria:

- Adult patients diagnosed with Stroke / Cerebrovascular event < 1 yr ago
- The patient has stroke related functional and/or cognitive deficits
- Ability of the patient and caregiver to learn and participate in the care plan
- Meets Central East LHIN eligibility criteria

Exclusion Criteria:

- Severe cognitive impairment
- Inappropriate behaviours that put self and others at risk
- Patient and/or family not willing to participate
- Terminal illness with expected short survival
- Diagnosis of TIA

Mild Pathway treatment plan: Block of 9 visits over 4 weeks with an average frequency of 2 visits/week until commencement of outpatient therapy.

Moderate Pathway treatment plan: Block of 17 visits over 8 weeks with an average frequency of 2 visits/week.

Severe Pathway treatment plan: Block of 17 visits over 8 weeks with an average frequency of 2 visits/week.

2018-19

Bundled Care (Advancing the Integrated Care Model)

Provincial

Bundled care is a service delivery and funding model designed to promote greater integration in health care delivery, drive high-quality, efficient care and improve patient outcomes and experience. In a bundled care approach, a group of health care providers receives a single payment to cover all the care needs of an individual patient's full spectrum of care for a specific health issue.

In the Fall of 2018, the MoHLTC communicated their direction for bundled care funding policy in 2019/20, involving integrated care for selected hospital-based acute and post-acute services. Work focused on a Coronary Artery Bypass Graft (CABG) bundle, a stroke bundle, and an Aortic Valve (AVI) Implantation model.

Implementation began with voluntary participation in 2019/20, with the expectation of broader adoption in subsequent years.

https://www.corhealthontario.ca/what-we-do/news/newsletter37

Implementation of Bundled Care for Stroke (hemorrhagic, ischemic and unspecified), and CABG surgery was scheduled for October 2019. A Ministry announcement dated September 2019 indicated it was shifting the implementation date for these bundles to a future date to allow hospitals and other providers more time to put in place the necessary agreements, processes, and mechanisms for provision of well integrated, cross-sectoral care for bundled stroke and CABG patients. Providers were encouraged to work internally, and with prospective partners, to build supports required for successful implementation.

https://www.corhealthontario.ca/what-we-do/news/newsletter31

CENTRAL EAST STROKE NETWORK

2019

Ontario Health
Provincial

Ontario Health was established June 2019 to bring together a variety of health care agencies into a unified team to advance the government's strategic directions, oversee health care delivery, improve clinical guidance, and extend and strengthen quality and performance improvement across the continuum of care.

The 14 LHINs have been clustered into five interim geographic regions and are led by five transitional regional leads.

https://www.ontariohealth.ca/

https://news.ontario.ca/en/release/54585/ontario-taking-next-steps-to-integrate-health-care-system

2019 - ongoing

Standards of Care
Regional

In collaboration, Toronto Stroke Networks and Central East Stroke Network modified the TSNs Standards of Care resource for provincial adoption in May 2019. Further revisions were made by CESN in September 2019 to support regional application.

The Standards of Care documents were developed for use by stroke system stakeholders across the continuum of care. They are an accessible and user-friendly tool that outlines the expectations for stroke care in the system to:

- evaluate current performance relative to standards
- facilitate the development of quality improvement plans
- assist in staff professional development planning and performance evaluation
- identify system level accountabilities and support for emerging bundled care models

Standards of Care self-assessments were completed by most hospital and H&CC organizations in CESN between Jan and Sept 2020. Site visit meetings were held to discuss prioritization with most organizations.

Standards of Care self-assessments are being refreshed and new self-assessments will be sent to organizations when complete. Activities to support prioritization and Quality Improvement efforts are being planned.

2020 - ongoing

COVID-19 Pandemic
Provincial

Impacts of the COVID-19 pandemic on stroke care include:

- suspected decreased presentation of stroke/TIA patients to Emergency Department
- transfer of stroke patients
- changes in staffing ratios for inpatient services
- reduction in outpatient / ambulatory rehabilitation
- increase in virtual services for outpatient / in-home rehabilitation and stroke prevention
- pause in bundled care for stroke
- challenges in engaging and supporting caregivers related to no-visitation policy

2020 - ongoing

Value-for-Money Audit

Provincial

The Office of the Auditor General of Ontario (OAGO) is conducting a Value-for-Money audit of cardiovascular and stroke care services in Ontario.

Following a pause due to the pandemic, they resumed activities January 2021. They re-engaged with system stakeholders, such as The Ministry of Health, Ontario Health, CorHealth Ontario, hospital representatives, and community stakeholders to gather information from the field on cardiovascular and stroke care delivery, including the impacts on care delivery due to the COVID-19 Pandemic. It is anticipated that these engagements will wrap-up in the summer.

Findings are expected to be included in the OAGO's annual report released in November/December 2021.

2021 - ongoing

CorHealth Ontario Emerging Priorities: Improving Access to Stroke Unit Care

Provincial

This is a new initiative for CorHealth Ontario's FY 21-22 Operating Plan emerging from system stakeholders as a key priority to address variation in access, quality of care and patient outcomes.

In Q1, project planning has been initiated to scope this multi-year initiative. Phase 1 is proposed to focus on:

a) understanding access including identifying geographical gaps, key barriers, enablers and strategies that would facilitate or limit increased access at a local, regional and provincial level and

b) a review of gaps and opportunities related to current measurement and monitoring of stroke unit access.

2021 - ongoing

CorHealth Ontario Emerging Priorities: Addressing Data Gaps in Performance Measurement in the Stroke System

Provincial

This is a new initiative for CorHealth Ontario's FY 21-22 Operating Plan emerging from system stakeholders as a key priority.

Despite evidence that rehabilitation and secondary prevention positively impact the patient outcome and support the system of care following stroke, there is no mechanism to describe or quantify access to services, quality of care or outcomes for patients who receive these services.

Unfortunately, support for COVID-19 wave 3 pandemic response has required a delay in initiating detailed project planning on this initiative. Work on this initiative will resume in later in 2020/21 as resources are made available.

2021 - ongoing

Provincial Stroke Repatriation Reference Document

Provincial

This **DRAFT document** was developed to clarify provincial expectations regarding the transfer of stroke patients following access to hyperacute stroke resources at Regional, District or non-District Telestroke hospitals.

Within this document, repatriation implementation expectations are outlined as follows:

- 'Stroke Units are the appropriate level of care for patients who have a confirmed acute stroke diagnosis and who require admission to acute care. **This applies to all acute stroke patients, whether EVT and/or tPA was received**.'
- 'In some instances, the 'closest' hospital to the patient's residence will not be identified as the 'home' hospital for repatriation, rather the 'home' hospital will be the closest hospital to the patient's residence that can provide the appropriate level of care.'
- 'Stroke patients will be repatriated to the closest stroke unit hospital to their home, not limited by boundaries as may be defined by LHINs or Health regions.'

Note that this draft document is still a work in progress.

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