STROKE DISTINCTION™ REPORT

Trillium Health Partners, Mississauga Site

Onsite Survey Dates: June 17-19, 2024

Report date: October 3, 2024

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About the Stroke Distinction™ Report

Trillium Health Partners, Mississauga Site is participating in the Accreditation Canada Stroke Distinction™ program. As part of this ongoing process of quality improvement, an onsite survey was conducted from June 17-19, 2024. Information from the survey, as well as other data obtained from the organization, was used to produce this Stroke Distinction™ Report.

Survey results are based upon information provided by the organization and gained through interviews with clients, families, caregivers, service providers and community partners. Accreditation Canada relies on the accuracy of this information to evaluate the organization and produce the Stroke Distinction™ Report.

Confidentiality

This report is confidential and is provided by Accreditation Canada to the organization only. Accreditation Canada does not release the report to any other parties.

In the interests of transparency and accountability, Accreditation Canada encourages the organization to disseminate its Stroke Distinction™ Report to staff, board members, clients, the community, and other stakeholders.

Any alteration of this Stroke Distinction™ Report compromises the integrity of the process and is strictly prohibited.

A Message from Accreditation Canada

On behalf of Accreditation Canada, I extend my congratulations to Trillium Health Partners, Mississauga Site on your participation in a program that recognizes organizations that demonstrate clinical excellence and an outstanding commitment to leadership in stroke care. I hope you find the Stroke Distinction™ process to be an engaging and informative experience, and that it is providing valuable information to inform your quality and safety initiatives.

This Stroke Distinction™ Report shows your decision and the results of your recent Stroke Distinction™ survey. I encourage you to use the information in this report to guide your ongoing quality improvement activities. Your Accreditation Specialist is available if you have questions or need guidance.

Thank you for your leadership and for demonstrating your ongoing commitment to quality by integrating Stroke Distinction™ into your quality improvement program. We welcome your feedback about how we can continue to strengthen the program to ensure it remains relevant to you and your services.

Sincerely,

Leslee Thompson, Chief Executive Officer

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Organization Profile

Trillium Health Partners, Mississauga Site (THP M-Site) one of the largest and busiest hospitals in the province of Ontario. They offer 12 regional programs to care for complex cases and serve a growing population of upwards of 2.8 million people.

The Regional Stroke Centre for the West GTA Stroke Network (WGTASN) is located at THP M-Site. THP M-Site delivers cross continuum, evidence-based stroke care following the Canadian Stroke Best Practice Recommendations and is one of the leading hospitals in Canada for delivering thrombolysis and thrombectomy procedures to acute stroke patients. THP M-Site partners with four Emergency Medical Service (EMS) providers in Peel, Dufferin, Halton, and Toronto, and provides tertiary-level adult stroke services including "on call" neurologists to provide acute stroke treatment, neurosurgery services, cerebral-vascular intervention, as well as highly skilled emergency medical staff who are experienced in identifying and treating stroke patients.

THP M-Site inpatient services include a critical care unit, neuroscience special care unit and a 52-bed comprehensive stroke unit (CSU) with 32 acute and 20 rehabilitation beds. The outpatient services include a Regional Stroke Prevention Clinic and Community Stroke Rehabilitation Services, including Outpatient Neuro Rehabilitation Clinic and Community Stroke Navigators.

THP M-Site is continuously evolving and innovating services to deliver state of the art, evidence based best practice care. As a result, they will be launching Tenecteplase (TNK) as an additional thrombolytic agent for acute ischemic stroke patients who fit the criteria in late June 2024. Additionally, in July 2024, Trillium Health Partners, Credit Valley Hospital Site will be going live in the emergency department with telemedicine for stroke patients consults with the regional stroke centre stroke neurologists.

Executive Summary

THP M-Site (referred to in this report as “the organization”) is participating in the Accreditation Canada Stroke Distinction™ program. As part of the Stroke Distinction™ program, the organization has undergone a rigorous evaluation process. External peer surveyors conducted an onsite survey June 17-19, 2024, during which they assessed the organization's programs and services. The organization was assessed against the Acute and Inpatient Rehabilitation standards.

To determine the award of Stroke Distinction™, Accreditation Canada verifies:

1. The degree of compliance with the standards.
2. The implementation of stroke protocols
3. The achievement of Key Quality Indicator thresholds and required data submissions.
4. The commitment to education for those with lived experience of stroke and their families and/or caregivers.
5. The commitment to excellence and innovation.

Overall, the Stroke Distinction™ surveyors identified the following areas of success within the organization’s stroke services:

- Engaged leaders, physicians and staff who demonstrate commitment to quality stroke care
- Strong partnerships across the organization and with community partners
- Teamwork and collaboration are evident across the continuum of care
- Focus on evidence informed decision making and quality improvement

Overall, the Stroke Distinction™ surveyors identified the following opportunities for continued growth and improvement within the organization’s stroke services:

- Rapidly growing population, capacity, and system flow challenges
- Health Human Resources – changing staff demographics
- Aging physical infrastructure

THP M-Site is commended on its commitment to using the Stroke Distinction™ program to improve the quality and safety of the services it offers to its clients and its community.

As the requirements of the Stroke Distinction™ program have been met, Accreditation Canada is pleased to recognize **Trillium Health Partners, Mississauga Hospital** for earning the **Stroke Distinction™ Award** for **Acute and Inpatient Rehabilitation** standards**.**

Award of Distinction™

Accreditation Canada's Accreditation Decision Committee (ADC) is responsible for conferring Distinction™ award decisions based on the decision guidelines. An organization or network is eligible for an award of Stroke Distinction™ that is valid for four years if all the following requirements are achieved.

	REQUIREMENT	RATING
1.	Standards criteria requirements are met.	MET
2.	Protocol requirements are met.	MET
3.	Key Quality Indicators baseline thresholds and data submission requirements are met.	MET
4.	Client and Family Education requirements are met.	MET
5.	Excellence and Innovation project requirements are met.	MET

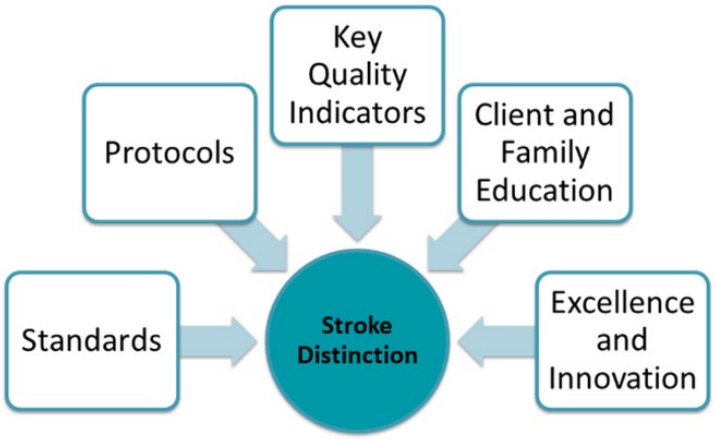
Based upon the results outlined above, Accreditation Canada is very pleased to recognize **Trillium Health Partners, Mississauga Hospital** for earning an award of **Stroke Distinction™** for the **Acute and Inpatient Rehabilitation** standards.

Introduction

The Accreditation Canada Stroke Distinction™ program is a rigorous and highly specialized program that is condition-specific and assesses clinical team practices against the most current practice guidelines. The program recognizes organizations that demonstrate clinical excellence and an outstanding commitment to leadership in a specific field of expertise. The program is developed through partnership with the Heart and Stroke Foundation and is supported by close consultation with other key stakeholders and content experts to reflect detailed practices and the most up-to-date evidence. The program guides and supports organizations over a four-year cycle, including an onsite survey conducted by expert surveyors who have extensive practical experience in the field.

The Stroke Distinction™ program is comprised of the following key components:

- **Standards**: Stroke Distinction™ Standards are based on the latest research and evidence related to excellence in the field.
- **Protocols**: The Stroke Distinction™ program requires the use of evidence-based protocols to promote a consistent approach to care and increase effectiveness and efficiency.
- **Key Quality Indicators**: A key component of the Stroke Distinction™ program is the requirement to submit data and meet thresholds on all applicable Key Quality Indicators.
- **Education for People with Lived Experience of Stroke and Their Families and/or Caregivers**: Education and self-management support are integral parts of stroke care that should be addressed at all stages across the continuum of stroke services for stroke clients and their families and/or caregivers. Education is an ongoing and vital part of the stroke recovery process and must involve the stroke client as well as their family members and/or caregivers.
- **Excellence and Innovation Project(s)**: The Stroke Distinction™ program requires organizations to demonstrate the implementation of at least one and a maximum of two project(s) that align with best practice guidelines, utilize the latest knowledge, and integrate evidence to enhance the quality of care.



Summary of the Surveyor Team's Overall Observations

Trillium Health Partners (THP) includes three site locations: Credit Valley Hospital, Mississauga Hospital, and Queensway Health Centre. The Mississauga Hospital (formerly Trillium Health Centre) participated in the Coordinated Stroke Strategy pilot in 1998 and was designated as the Regional Stroke Centre by the Ministry of Health and Long-Term Care (MoHLTC) in 2000 with the introduction of tPA for hyperacute care. Since then, THP M-Site has developed a comprehensive stroke program encompassing acute care and rehabilitation. THP M-Site was one of the first centres to integrate acute and rehabilitation stroke unit care into one unit called the Comprehensive Stroke Unit (CSU). As one of Canada's largest community-based hospital systems, THP M-Site serves 2.8 million people and expects to grow by 45%, or 1 million new residents, by 2041, including a 133% increase in seniors aged 65 and older, most with multiple complex conditions. In Peel region, 69% of residents identify with a racial group, more than 50% were born outside Canada, and 51% live in low to very low-income neighbourhoods.

Guided by the mission "A new kind of health care for a healthier community," THP M-Site hosts the West GTA Stroke Network (WGTASN), one of 11 stroke networks in Ontario, serving Peel, Halton, Dufferin, and Etobicoke regions. THP M-Site's stroke program includes emergency intervention, acute treatment, rehabilitation, and community reintegration. In 2023-24, THP M-Site admitted and treated 802 stroke patients, with 21% receiving tPA, 21% receiving Endovascular Thrombectomy (EVT), and 82% of patients with stroke were admitted to the Comprehensive Stroke Unit (CSU), of whom 22% received inpatient rehabilitation.

The organization utilizes state-of-the-art technology and evidence-based practices to improve stroke patient outcomes through collaboration, continuous education, and innovation in stroke management and prevention. Staff receive ongoing professional development and training including support from the WGTASN. Training includes NIHSS training, Stroke 101 modules, APEX-Hemispheres, AlphaFIM® & FIM® training, transfer training, etc. New staff members feel supported during orientation, and the CSU has implemented a Stroke Champion model to mentor new staff. Recruitment efforts include using the Nursing Graduate Guarantee (NGG) and Clinical Extern programs offered by Ontario Health. The organization has been able to retain experienced staff on the CSU.

THP M-Site has a well-established hyperacute stroke process with strong EMS partnerships, allowing for quick triage, assessment, and rapid imaging, resulting in exceptional door-to-needle times for tPA. As the regional stroke and neurosurgical centre and one of 10 hospitals in Ontario providing Endovascular Therapy (EVT), THP M-Site treats approximately 200 patients annually. Post-tPA/EVT patients move quickly to the Intensive Care Unit (ICU)/3J Neurosciences Special Care Unit (NSCU) for comprehensive assessment, including dysphagia screening and neurological monitoring. Other stroke/TIA patients who do not receive tPA or EVT are prioritized for admission to the CSU. The organization reported plans are in place to transition to TNK from tPA in the next few weeks. In addition, the organization is encouraged to work with partners to consider utilizing the telemedicine model to include a "drip and ship" model of care potentially decreasing the number of patients requiring bypass and utilizing the resources of partner hospitals also ensuring rapid assessment for EVT and stroke unit care.

The Stroke Prevention Clinic offers secondary stroke prevention services, with a team including stroke neurologists, registered nurses, and clerical staff. Referrals are screened for urgency and prioritized accordingly, with Level A being emergent cases seen within 24-48 hours. All stroke patients receive a referral to the Stroke Prevention Clinic for follow-up after discharge.

The CSU is a 52-bed unit (32 acute and 20 rehab) divided into two stations, caring for patients throughout their acute and rehab phases. Each station has a Clinical Quality Care Leader (CQCL) focusing on patient care and quality improvement. The team includes stroke internists, rehab hospitalists, a physiatrist, RNs, RPNs, PCAs, OTs, PTs, SLPs, OTA/PTA/CDA, dietitians, pharmacy, social work, and community stroke navigators. However, the medical models differ between stations, potentially reducing continuity of care. THP M-Site is encouraged to review the medical model on the CSU to increase the continuity of care. Efforts are made to transfer patients to the CSU in a timely manner, however a site plan for a preferred overflow unit is needed to ensure best practices for all stroke patients.

Therapy is provided in two small gym spaces, presenting challenges such as limited quiet spaces for cognitive assessments and inadequate facilities for instrumental daily living activities (i.e. kitchen assessments). Patient rooms are small, and most are four-bed wards sharing one bathroom. Direct therapy intensity and duration does not meet the Canadian Stroke Best Practice rehabilitation intensity recommendation of 180 minutes per day of task specific therapy, 5 days per week. THP M-Site reported 54.22 minutes of total rehab intensity per day in 2023-24. It is recommended that the organization explore ways to increase therapy opportunities.

Community Stroke Navigator positions are crucial for assisting patients transitioning from hospital to home, providing follow-up for up to a year post-discharge. They work with social workers/discharge planners and the interprofessional team to develop transition plans and referrals to community-based services. The Neuro Outpatient Program offers ongoing multidisciplinary stroke rehabilitation, with 75% of services provided to stroke patients, but access is limited to the THP M-Site catchment area, and there is a waitlist. Home and Community Care provides enhanced therapy visits for eligible stroke patients, but there is also a waitlist for these services. It is recommended that the organization continue to collaborate with the WGTASN and CorHealth Ontario to advocate for more funding for community-based stroke rehabilitation.

THP's three hospitals coordinate acute and inpatient stroke rehabilitation services, working with the WGTASN to repatriate patients to their home hospitals with stroke units. Future plans include separating the CSU into distinct acute and rehab stroke units and eventually relocating the 20 inpatient stroke rehab beds to the Queensway Health Centre location. Careful planning is needed to ensure the care currently being offered is maintained including limited wait time for inpatient rehabilitation as well as smooth transitions and adequate staffing.

The Client and Family Education component of Stroke Distinction emphasizes educating patients and families about stroke management, recovery, and prevention. The interprofessional team provides stroke education, encouraging family participation in therapy sessions. All THP sites care for a diverse population and report that ~50% of the population they serve was not born in Canada and that ~69% of the population in the Peel Region identifies with a racialized group. THP M-Site has risk factor pamphlets translated into multiple languages and the team does report that they use VOYCE translation services regularly as well as translation on their mobile devices. At the time of the onsite survey, the primary education booklet, "TIA and Stroke Education for Patients and Families," was only available in English. During the survey, patients reported to surveyors their appreciation of written materials in their own language. As a result, the education booklet was sent for translation and before the end of the survey reporting was made available to staff to use in eleven different languages. In addition, an area of opportunity noted was that THP M-site enhance the use of Epic for documenting critical education components and consider regular stroke education group sessions involving community partners.

Key Quality Indicators (KQI) are a core component of the Stroke Distinction Program. The organization reported on 18 KQIs, meeting the threshold for all. THP M-Site excelled in hyperacute care, with 18.16% of patients receiving thrombolysis (KQI#3), exceeding the 5% threshold, and 98% receiving the drug within 60 minutes (KQI#2), with a median of 37 minutes. THP M-Site is a comprehensive EVT center, with 22.65% of ischemic stroke patients receiving EVT (KQI#4) and 83.17% of procedures deemed successful (KQI#5).

The percentage of patients accessing comprehensive inpatient stroke rehabilitation following acute care just meets the minimum threshold at 21.45% (KQI#12). The organization should review admission criteria to ensure those needing intensive rehabilitation receive it and potentially work with partners to advocate for more stroke rehabilitation unit beds. Screening for depression during inpatient rehabilitation (KQI#14) is low at 51.52%. Depression affects recovery and quality of life, so timely assessment and intervention are critical. It is recommended that THP M-Site improve depression screening and assessment processes.

THP M-Site's Excellence and Innovation project to improve door-to-needle times for tPA after hours using telemedicine technology has shown positive results. The organization should expand telemedicine to other hospital sites in the region, considering a "drip and ship" model of care. The organization is encouraged to continue innovative research for future Excellence and Innovation Projects.

THP M-Site collaborates with community partners to support stroke patient's post-discharge. Partners, including Halton-Peel Community Aphasia Programs and TransHelp, praised the connectivity within the WGTASN region. The network organizes events like "Stroke Partner Days" to highlight community programs and has developed a comprehensive Community Stroke Resources guide. THP M-Site's Community Stroke Navigators assist patients for up to a year post-stroke, linking them to services and providing education and advocacy. These roles are instrumental in supporting high-need patients and contributing to provincial guidelines.

Patients and families reported positive experiences with the stroke team, feeling encouraged and supported in their recovery. Family members appreciated the opportunities to learn how to support their loved ones, and the Community Stroke Navigator was highlighted as a valuable resource. Patients also found motivation from the messages of hope left by former patients in the therapy gym.

Standards

The Stroke Distinction™ standards identify policies and practices that contribute to high quality, safe, and effectively managed care in a specific area of expertise. Each standard has a set of criteria that are statements outlining the activities required to achieve the standard. **High-priority criteria** are foundational requirements for delivering safe and quality services and are identified by a red exclamation mark within the standards.

During the survey, the surveyors assessed the organization's compliance with each section of the standard and provided the following results. As part of ongoing quality improvement, the organization is encouraged to address any unmet criteria.

Overall Ratings: Acute Stroke Services

REQUIREMENT	RESULTS	RATING
75% or greater of all criteria within the acute stroke standard have been rated as "met".	98%	MET
80% or more of all high-priority criteria within the acute stroke standard have been rated as "met".	100%	MET

Results Overview: Acute Stroke Services

Theme	Met %
Investing in comprehensive acute stroke services.	100%
Engaging a prepared and proactive acute stroke services team.	94%
Providing safe and appropriate hyperacute and acute stroke services.	98%
Helping clients, families, and/or caregivers live with stroke.	100%
Maintaining accessible and efficient clinical information systems.	100%
Monitoring quality and achieving positive outcomes.	100%

Results by Theme: Acute Stroke Services

Investing in Comprehensive Acute Stroke Services

Surveyor Comments

The organization collects information on the prevalence in the population including the demographic information about high-risk and hard-to-reach populations. In addition, the organization uses data about the demand for services to help analyze capacity and barriers that prevent timely access to services. Currently, one of the largest challenges for THP M-Site is the rapidly growing population and the need for more acute and rehabilitation services. THP M- Site reports that work is underway to look at separating the comprehensive stroke unit into an acute and rehabilitative stroke units with the rehabilitative stroke unit being eventually located at the Queensway Health Centre and they are considering additional stroke rehab beds and increasing the acute stroke unit capacity.

UNMET CRITERIA

- There was no UNMET criterion for this theme.

Engaging a Prepared and Proactive Acute Stroke Services Team

Surveyor Comments

The Comprehensive Stroke Unit (CSU) is a geographically defined unit that has 52 beds (32 Acute and 20 Rehab). The unit is broken into two sides (Station 1 and Station 2) that contain both patients in the acute phase and rehab phase of care. Patients are cared for in the same bed when they transition to the rehab phase of their care. Each station also has a Clinical Quality Care Leader (CQCL) that functions as a charge nurse as well as focusing on quality improvement initiatives on the unit.

The team collaborates with other service providers and organizations to provide timely access to acute stroke services. The Stroke Steering Committee consists of internal and external partners, including a patient and family representative. This committee is divided into two working groups that are responsible for stroke medical model of care and stroke best practice implementation.

THP M-Site has integrated the use of the Heart and Stroke Foundation of Canada's FAST strategy to improve awareness in the community. During the month of June, the organization has utilized their staff to perform short videos each week to promote the awareness of signs and symptoms of stroke, with appropriate actions to take. These videos are shared on the organization's external website and social network pages.

UNMET CRITERIA

CRITERION		COMMENTS
3.4	The layout of the physical space contributes to the delivery of effective and safe acute stroke services	Patients receive therapy in 2 dedicated, relatively small gym spaces on the CSU. The physical space presents the unit with challenges including limited access to quiet spaces for cognitive and perceptual assessment as well as limited ability to participate in fulsome instrumental activities of daily living activities (i.e., full kitchen to assess meal preparation etc). In addition, patient rooms are small with limited capacity to house equipment (i.e., wheelchair and walker) with most of the rooms being 4 bed wards that share 1 bathroom.

Surveyor Comments

During the visit, the surveyor had the opportunity to speak with EMS representatives from all four EMS groups that work with the organization (Peel, Halton, Dufferin, and Toronto). They provided an excellent presentation with an overview of services provided and evidence of standards. There is evidence of collaboration with the organization especially related to education for EMS related to stroke protocols. EMS has a representative on the THP M-Site Stroke Steering Committee. When asked, they stated they felt it was a valuable committee that allowed them an opportunity for input and to hear from other members. The surveyor recommends that EMS also be invited to sit on the Work Stream 2 working group for Stroke Best Practice to allow their input into best practice guidelines and protocols. Even though capacity within the Emergency Department (ED) has been identified as a concern, EMS communicated that offloading of suspected stroke patient is timely and efficient. The EMS team identified an opportunity to improve stroke care through the implementation of a standardized form across all regions for documentation of Los Angeles Motor Scale (LAMS). The surveyor encouraged the EMS group to consider the process of transportation of suspected stroke patients directly to CT to avoid delays experienced with offload in the ED prior to CT. This is becoming a standard of care to reduce valuable door to needle time.

Stroke protocols are initiated efficiently upon pre-notification of suspected stroke patient. The ED has a separate triage area for EMS arrivals. Once pre-notification of suspect stroke is received the triage area is prepared to receive the patient and triage immediately on arrival. All triage staff are trained in the identification of stroke symptoms. The leadership acknowledges that one of the organization's strengths is their staff's ability to identify stroke symptoms and activate stroke protocols for those patients who are also self-presenting. Evidence was present in hyperacute services of the use of established protocols and patient order sets which were based on evidence-based practice and included in patient's record. All care teams were able to articulate the use of these protocols. The surveyor was also able to observe the use of these protocols during a Code Stroke activation. Observation included timely access to CT, blood glucose levels documentation, and eligibility criteria for treatment with IV thrombolytics or EVT. Once eligibility is determined and thrombolytics administered or EVT performed the patient is closely monitored by the Code Stroke team as per patient order sets.

Since the last survey there have been significant improvements in the ED spaces which allow for a more efficient flow of patients throughout the department. The Diagnostic Imaging (DI) department is in close proximity to the ED. There is an opportunity for the organization to implement a process of EMS transporting suspected stroke patients directly to CT. This process has been documented to result in further decreases in door to needle times. There is close collaboration with the DI and endovascular team. Notable is the role of the DI Assistant, a liaison between the ED and DI for an efficient transitioning of suspected stroke patients for CT and/or EVT. The team collaborates with

diagnostic and interventional services to offer evidence-based stroke care. The Organization is to be commended for the implementation of the Direct to Angio (DTA) initiative which has resulted in significant decreases in the door to groin puncture times. This initiative was a result of collaboration amongst Interventional Radiology staff and the stroke team.

The use of the TOA (transfer of accountability) tool within Epic and verbal nurse to nurse report allows for efficient and effective transfer of appropriate and timely clinical information to the next clinical team. THP M-Site is committed to promoting and sustaining best practice in acute stroke services. The acute and hyperacute interdisciplinary teams collaborate well. Through team bullet rounds, individualized care plans are developed with the needs of the client, family, and caregivers in mind.

ED and ICU have standard orientation and education. Standards for acute stroke care are part of this education that includes testing and mentorship. The education of staff is monitored by the educator in both areas.

As a result of bed flow challenges, stroke patients are sometimes held in inpatient beds outside the stroke unit until a bed becomes available. This results in delays in treatment for these stroke patients. There is no clustering of these patients outside the stroke unit. The care teams make an effort to provide stroke care as best possible given the limitations of resources and specialized trained care team members outside the acute stroke unit. The organization has a plan for moving stroke rehab beds offsite in the coming months. THP M-Site should take this opportunity to increase acute stroke bed capacity to allow for stroke patients to receive care at the right time in the right place. The care team on the acute stroke unit evaluates the client's needs for rehab daily and consults rehab services. Daily assessments are completed for risks of DVT, falls, pressure injury, urinary incontinence, hypertension, and hyperlipidemia. The care team has a protocol in place for the assessment of depression. This assessment occurs on day 14 of inpatient stay and earlier if past history or signs and symptoms of depression are recognized by the care team. Protocols for managing diabetes are followed. There is one client information system across hyperacute, acute and rehab (Epic) that can be viewed by all health care teams, this allows for seamless flow of information across the continuum.

All patients discharged from the ED and from acute inpatients services with diagnosis of TIA or stroke are referred to the Secondary Stroke Prevention Clinic. There is evidence that the interdisciplinary team on the acute stroke unit works closely with patients and families to prepare them for transitions and follow up plans. The Community Stroke Navigator is an instrumental team member and is a positive resource for both the care team, patients, and families.

UNMET CRITERIA

CRITERION		COMMENTS
7.2	When clients are not managed on a dedicated stroke unit, there is a process to cluster them.	Due to current hospital capacity pressures, when demand for the CSU is over the current available capacity, patients are not cohorted. Although efforts are made to transfer appropriate patients to the CSU in a timely manner, the team should look to develop a site plan which identifies a single preferred overflow unit for patients with stroke to work with teams to ensure best practices are delivered to all patients with stroke.

Helping Clients, Families, and/or Caregivers Live with Stroke

Surveyor Comments

Stroke education is an integral component of stroke care delivery. Patients with stroke and their caregivers are provided with education materials to guide their care and are encouraged to ask team members if they have any questions. These education materials are provided early on in their admission to the CSU. Epic provides a tool within the system for documentation of education. While this is being used by some staff, leadership does acknowledge there is room for improvement. Multilanguage patient education pamphlets are available. At the time of the onsite survey, the primary education booklet provided to families, “TIA and Stroke Education for Patients and Families”, was only available in English. Availability of multilanguage patient education materials was mentioned as an opportunity for improvement in THP M-Site’s previous survey. In Peel region, 69% of residences identify as a racial group and 50% were born outside Canada. During the visit the surveyor had an opportunity to speak with a stroke patient whose first language was not English, he spoke passionately about hoping for more education in his own language. The surveyor addressed his concerns with the organization and the requirement for education materials be available in the languages they serve. The organization understood and listened to the voice of the patient and acted on this quickly. As a result, the education booklet was sent for translation and before the end of reporting was made available to staff to use in eleven different languages.

The Stroke Prevention Clinic (SPC) delivers secondary stroke prevention services with a team including stroke neurologists, registered nurses, and clerical staff. The team receives and screens referrals for appropriateness and triages them for urgency of care based on priority level A, B, C, D and E. Level A being emergent and are seen usually with 24-48 hours. The leadership and staff identified inconsistencies within the referral forms and are currently using a work-around algorithm to address these inconsistencies. The leadership is committed to working with the stakeholders of the clinic to revamp the referral form to address this inconsistency within the next four months. The process has started with an environmental scan of referral forms in the province. Patient referrals for secondary stroke prevention services are direct from the emergency departments, family physicians, specialists, and discharged in- patients. The clinic is open 5 days a week with double clinics occurring three days a week. Emphasis is placed on all new patients to the clinic having an in-person assessment and virtual option for follow-up appointments. The SPC has strong leadership in their stroke neurologist team. During the tracer there was an opportunity to speak with a patient at the clinic. The patient spoke highly of the quick referral process and the streamlined service of having carotid ultrasound performed during her appointment. Educational materials were available for patients and families.

UNMET CRITERIA

- There was no UNMET criterion for this theme.

Maintaining Accessible and Efficient Clinical Information Systems

Surveyor Comments

The organization implemented a new electronic medical record in 2020 (Epic). The system is a robust clinical information system that allows for the gathering of organizational information across the continuum of stroke care. Together with the decision support and coding teams, various live dashboards and scorecards have been created to ensure quality data in order to monitor performance. This data includes information on trends as well as teams are able to drill down to the patient level to audit charts and better understand and analyze the data. Teams are using AI tools such as Power BI to gather together data from administrative databases such as CIHI data (NACRS, DAD and NRS) and clinical data from Epic. Another software called 3 Terra is being used to audit coded data with Epic data to ensure quality and that no data is missing or incorrect. This data has been used practically by teams to complete quality improvement including a recent project to improve door to needle time for tPA. Leaders share data with frontline staff at team huddles, on huddle boards and during committee meetings such as the THP M-Site Stroke Steering Committee. Patients and families are able to view data on huddle boards posted on the unit. There are also security, back-up, and confidentiality systems to protect stroke data that meets legislation for protecting privacy.

UNMET CRITERIA

- There was no UNMET criterion for this theme.

Monitoring Quality and Achieving Positive Outcomes

Surveyor Comments

The Clinical Quality Care Leaders on the CSU focus on quality improvement including coordinating the care of patients on the unit. In addition, the stroke system has a strong culture of monitoring performance with the Ontario Stroke Report Card where organizations are able to compare their performance with other organizations and stroke centres. The Regional Stroke Team shares results with THP M-Site and other organizations in the region via the Regional Stroke Steering Committee. Patient and family partners are included on committees where performance is shared. The team reported that they have members on the Acute and Rehab Operational Committee where information and ideas are shared to help all providers improve their stroke care.

Follow-up phone calls are made to all patients and/or their families approximately two weeks following discharge from the CSU to assess how patients are coping with the transition and if services referred have followed up. Standardized patient experience surveys encouraged to be completed by patients and families when discharged at each transition point including the Secondary Stroke Prevention Clinic, CSU, and Neuro Outpatient Program. The team is encouraged to develop formal processes to review patient experience data on a regular basis to inform quality improvement and include patients and families in this process.

As a Regional Stroke Centre, the team conducts research, and is part of clinical trials to look for innovations in acute stroke services.

UNMET CRITERIA

- There was no UNMET criterion for this theme.

Overall Ratings: Inpatient Stroke Rehabilitation Services

REQUIREMENT	RESULTS	RATING
75% or greater of all criteria within the inpatient rehabilitation stroke standard have been rated as “met”.	92%	MET
80% or more of all high-priority criteria within the inpatient rehabilitation stroke standard have been rated as “met”. 	95%	MET

Results Overview: Inpatient Stroke Rehabilitation Services

Theme	Met %
Investing in comprehensive inpatient stroke rehabilitation services.	100%
Engaging a prepared and proactive inpatient stroke rehabilitation team.	93%
Providing safe and appropriate inpatient stroke rehabilitation services.	87%
Helping clients, families, and/or caregivers live with stroke.	100%
Maintaining accessible and efficient clinical information systems.	100%
Monitoring quality and achieving positive outcomes.	100%

Results by Theme: Inpatient Stroke Rehabilitation Services

Investing in Comprehensive Inpatient Stroke Rehabilitation Services

Surveyor Comments

The organization collects information on the prevalence in the population including the demographics information about high-risk and hard-to-reach populations. In addition, the organization uses data about the demand for services to help analyze capacity and barriers that prevent timely access to services. Currently, one of the largest challenges for the organization is the rapidly growing population and the need for more acute and rehabilitation services. THP M-Site reports work is underway to look at separating the comprehensive stroke unit into an acute and rehabilitative stroke units with the rehabilitative stroke unit being eventually located at the Queensway Health Centre and the potential to increase the number of stroke rehabilitation beds.

UNMET CRITERIA

- There was no UNMET criterion for this theme.

Engaging a Prepared and Proactive Stroke Rehabilitation Team

Surveyor Comments

The organization uses the Canadian Stroke Best Practices to guide and manage patients as evidenced in policies and procedures. The interprofessional team works collaboratively to meet the needs of patients and families and is made up of Stroke Internists, Hospitalists, RNs, RPNs, PCAs, OTs, PTs, SLPs, OTA/PTA/CDA, dietitians, pharmacy, social work, community stroke navigators. The team reports that they receive ongoing professional development and training to maintain their experience with education offered through the WGTASN. In addition, staff are required to receive NIHSS training, Stroke 101 modules, APEX-Hemispheres, AlphaFIM® and FIM® training, transfer training, etc.

The Comprehensive Stroke Unit (CSU) is a geographically defined unit that has 52 beds (32 Acute and 20 Rehab). The unit geography consists of two sides (Station 1 and Station 2) that contain both patients in the acute phase and rehab phase of care. Patients are cared for in the same bed when they transition to the rehab phase of their care. Each station also has a Clinical Quality Care Leader (CQCL) that function as a charge nurse as well as focus on quality improvement initiatives on the unit.

THP is made up of 3 organizations (Credit Valley Hospital, Mississauga Hospital, and Queensway Health Centre) that collaborate to coordinate and plan inpatient stroke rehabilitation services in addition, with the support of the WGTASN, THP M-Site collaborates with the other organizations in the region to repatriate patients to home hospitals with stroke units. Future planning is underway to relocate the 20 inpatient stroke rehab beds to the former West Park Building with the eventual location to be at Queensway Health Centre with the potential to increase the number of stroke rehabilitation beds.

Criteria rated Not Applicable:

3.6 - The team uses telestroke/telehealth services to increase access to stroke rehabilitation expertise.

UNMET CRITERIA

CRITERION		COMMENTS
3.4	The layout of the physical space contributes to the delivery of effective and safe inpatient stroke rehabilitation services.	Patients receive therapy in 2 dedicated, relatively small gym spaces on the CSU. The physical space presents the unit with challenges including limited access to quiet spaces for cognitive and perceptual assessment as well as limited ability to participate in fulsome instrumental activities of daily living activities (i.e., full kitchen to assess meal preparation etc). In addition, patient rooms are small with limited capacity to house equipment (i.e., wheelchair and walker) with most of the rooms being 4 bed wards that share 1 bathroom. Opportunity exists to create an ideal physical space for the delivery of stroke care in plans to move inpatient rehabilitation beds to a new site.

Surveyor Comments

The CSU has an Inpatient Stroke Rehabilitation Referral and Admission policy and procedure that outlines the referral and admission process for patients requiring inpatient rehabilitation. The process takes into consideration the patient's initial AlphaFIM® score to assist with triage. Patients who are "rehab ready" and are no longer requiring acute stroke care are flipped to become a rehab patient. The patient does not move beds and the interprofessional team remains the same providing a good continuity of care and virtually no wait to access inpatient rehabilitation services. Rehab readiness is determined by the interprofessional team and discussed at bullet and weekly team rounds. Since THP M-Site is a Regional Stroke Centre, the team reports that they receive very few referrals from outside organization for inpatient stroke rehabilitation. On the occasion that an outside referral is received the team responds to it in a timely manner.

Patients and families are provided the name of the unit manager on their white board adjacent to their bed along with the Clinical Quality Care Leader (CQCL). The CSU team uses the NIHSS to monitor neurological status and the AlphaFIM® and FIM® to determine the client deficits and functional status. Policies indicate that assessments are to be done within 48-72 hours from admission. The team uses the MOCA to screen for cognitive impairment and will refer to Specialized Geriatric Services if needed. The team also screens for depression using the PHQ-9. It is recommended that the team on the CSU carefully monitor performance as currently only approximately 50% of patients in rehabilitation are receiving a screen for depression. If required, the team will consult psychiatry or address with the patients MRP. Patients are assessed using the STAND to screen for dysphagia and a referral is made to SLP as per policy and procedure.

The CSU has developed standardized protocols that are specific to the care and management of stroke including falls prevention, pressure injury prevention and treatment, the assessment and management of diabetes mellitus (when present). The organization is encouraged to look at ways to cluster patients with stroke who do not get admitted to the CSU in order to ensure best practice protocols are in place to care for these patients.

All stroke patients who are discharged receive a referral and follow up appointment with the Secondary Stroke Prevention Clinic.

UNMET CRITERIA

CRITERION		COMMENTS
5.6	The team collaborates with its referral sources to proactively manage its wait list and respond to the needs of clients who are waiting for service.	While the team reports efforts are made to admit patients with stroke who have been admitted to other units due to capacity challenges, there is no clearly identified formal process to review patients with stroke who have been admitted to other units other than the CSU (i.e. medicine, complex continuing care etc.). In addition, the team reports that patients in the ED and in critical care requiring access to the CSU are prioritized.
5.7	The team has a process for clients to re-access stroke rehabilitation services if clinically indicated, regardless of the source of referral or the time that has elapsed since stroke onset.	No evidence was provided that the team has a process to formally re-access inpatient stroke rehabilitation services regardless of the source of referral or the time that has elapsed since stroke onset.
7.1	When clients are not managed on a dedicated stroke unit, there is a process to cluster them.	Due to current hospital capacity pressures, when demand for the CSU is over the current available capacity, patients are not cohorted. Although efforts are made to transfer appropriate patients to the CSU in a timely manner, the team should look to develop a site plan which identifies a single preferred overflow unit for patients with stroke to work with teams to ensure best practices are delivered to all patients with stroke.
7.3	Team members follow the individualized intervention plan to deliver the appropriate intensity and duration of evidence-informed therapies.	Rehab intensity is important to optimize patient outcomes. The intensity and duration of direct therapy is not in accordance with the current best practice guidelines.
7.4	The team ensures that the intensity and duration of direct therapy are in accordance with current best practice guidelines.	The intensity and duration of direct therapy is not in accordance with the current best practice guidelines of 180 minutes of therapy 5 days per week. THP M-Site reported that Total Rehab Intensity minutes for fiscal year 2023-24 was 54.22 minutes. THP M-Site is encouraged to look at ways to increase direct therapy opportunities on the unit and consider patient to therapist ratios.

Helping Clients, Families, and/or Caregivers Live with Stroke

Surveyor Comments

Community Stroke Navigator positions are pivotal in assisting with transitions from hospital to home and follow patients for up to a year post discharge. In addition, together with the social worker and interprofessional team they help to develop transition and follow-up plans that include referrals to additional community-based services, LOAs, etc.

UNMET CRITERIA

- There was no UNMET criterion for this theme.

Maintaining Accessible and Efficient Clinical Information Systems

Surveyor Comments

The organization implemented a new electronic medical record in 2020 (Epic). The system is a robust clinical information system that allows for the gathering of organizational information across the continuum of stroke care. Together with the decision support and coding teams, various live dashboards and scorecards have been created to ensure quality data in order to monitor performance. This data includes information on trends as well as teams are able to drill down to the patient level to audit charts and better understand and analyze the data. Teams are using AI tools such as Power BI to gather together data from administrative databases such as CIHI data (NACRS, DAD and NRS) and clinical data from Epic. Another software called 3 Terra is being used to audit coded data with Epic data to ensure quality and that no data is missing or incorrect. Leaders share data with frontline staff at team huddles, on huddle boards and during committee meetings such as the THP M-Site Stroke Steering Committee. Patient and families are able to view data on huddle boards posted on the unit. There are also security, back-up, and confidentiality systems to protect stroke data that meets legislation for protecting privacy.

UNMET CRITERIA

- There was no UNMET criterion for this theme.

Monitoring Quality and Achieving Positive Outcomes

Surveyor Comments

The Clinical Quality Care Leaders on the CSU focus on quality improvement including coordinating the care of patients on the unit. In addition, the stroke system has a strong culture of monitoring performance with the Ontario Stroke Report Card where organizations are able to compare their performance with other organizations and stroke centres. The Regional Stroke Team shares results with THP M-Site and other organizations in the region via the Regional Stroke Steering Committee. Patient and family partners are included on committees where performance is shared. The team reported that they have members on the Acute and Rehab Operational committees where information and ideas are shared to help all providers improve their stroke care.

Follow-up phone calls are made to all patients and/or families approximately two weeks following discharge from the CSU to assess how patients are coping with the transition and if services referred have followed up. Standardized patient experience surveys are encouraged to be completed by patients and families when discharged at each transition point including the Secondary Stroke Prevention Clinic, CSU, and Neuro Outpatient Program. The team is encouraged to develop formal processes to review patient experience data on a regular basis to inform quality improvement and include patients and families in this process.

UNMET CRITERIA

- There was no UNMET criterion for this theme.

Key Quality Indicators

The Key Quality Indicators (KQIs) are a core component of the Stroke Distinction™ program. Organizations are required to collect and submit data on all applicable KQIs. The Stroke Distinction™ program KQIs define thresholds that must be achieved, as well as quality improvement targets and best practice targets (where applicable) to help organizations compare themselves against established benchmarks to improve quality over time. Please refer to the Stroke Distinction™ Key Quality Indicators document for a full list of the KQIs and their related data definitions, applicability, thresholds, and quality improvement or best practice targets

For the first on-site survey, KQI data must be submitted for two consecutive quarters prior to the on-site survey. Following the first on-site survey, organizations must submit KQI data to Accreditation Canada annually to maintain the award of Distinction™. This was the organization's initial survey using the new Key Quality Indicators. Their data submission was from July 1 – December 31, 2023.

Ratings

The following section provides a list of the KQIs collected by organizations assessed against the Acute and Inpatient Rehabilitation standards. Ratings are based upon data submitted by the organization for each applicable KQI.

REQUIREMENT	RATING
Collect and submit data on all applicable KQIs.	MET
Achieve baseline thresholds for all applicable KQIs.	MET

KQI	Threshold	Result	Rating
#1: Proportion of acute ischemic stroke clients who receive initial brain Computed Tomography (CT) or Magnetic Resonance Imaging (MRI) on same day of arrival	60%	99.6%	MET
#2: Treatment delay in acute ischemic stroke clients administered Intravenous (IV) thrombolysis upon hospital arrival	50% within 60 min	98% within 60 min	MET
#3: Proportion of acute ischemic stroke clients administered intravenous (IV) thrombolysis	5%	18.2%	MET
#4: Proportion of acute ischemic stroke clients who receive endovascular thrombectomy (EVT)	5%	22.7%	MET
#5: Proportion of acute ischemic stroke clients with a successful endovascular thrombectomy (EVT) procedure	75%	83.2%	MET
#6: Proportion of acute ischemic stroke clients screened with a standardized screening tool for dysphagia on same day of hospital arrival	40%	80.5%	MET
#7: Proportion of acute ischemic stroke clients having an initial standardized rehabilitation assessment within 2 days of hospital arrival	40%	57.9%	MET
#8: Proportion of acute ischemic stroke clients admitted to a dedicated stroke unit or toa dedicated inpatient unit that provides a structured stroke care program	60%	81.6%	MET
#9: Proportion of acute ischemic stroke clients diagnosed with preventable complications during acute inpatient stay	30%	6.1%	MET
#10: Length of Stay (LOS) of acute ischemic stroke clients in an acute inpatient unit	50% within 14 days	75% within 14 days	MET
#11: 30-day acute ischemic stroke client mortality during acute inpatient stay	10%	8.8%	MET

KQI	Threshold	Result	Rating
#12: Proportion of acute ischemic stroke clients transferred from acute inpatient unit to rehabilitation inpatient unit	20%	21.5%	MET
#13: Proportion of acute ischemic stroke clients admitted to inpatient rehabilitation assessed for falls risk with standardized tool within 2 days of hospital admission	40%	100%	MET
#14: Proportion of acute ischemic stroke clients screened for depression with a standardized screening tool during inpatient rehabilitation stay	40%	51.5%	MET
#15: Proportion of acute ischemic stroke clients screened for cognitive impairment with a standardized screening tool during inpatient rehabilitation stay	40%	71.2%	MET
#16: Proportion of acute ischemic stroke clients with an improvement in functional status from time of admission to inpatient rehabilitation unit to time of discharge based on a standardized measurement tool	40%	89.4%	MET
#17: Length of Stay (LOS) of acute ischemic stroke clients in an inpatient rehabilitation unit	≤ 50% 44 days	82% have a LOS less than 44 days	MET
#18: Proportion of acute ischemic stroke clients admitted to acute or rehabilitation inpatient unit with diagnosis of atrial fibrillation on appropriate anticoagulant therapy at discharge	75%	99%	MET

Surveyor Comments

Key Quality Indicators (KQI) are a core component of the Stroke Distinction Program. The organization has reported on 18 KQIs and has met the threshold for all 18 of these quality indicators.

The time-period of data reported for the purpose of the survey was July-Dec 2023. THP M-Site is commended for their hyper-acute care performance as the regional centre providing thrombolysis and EVT in the region. Performance for thrombolysis has 18.16% of patients receiving the treatment (KQI#3) far exceeding the threshold of 5% with 98% of patients receiving the drug within 60 minutes (door-to-needle time) (KQI#2) with a median of 37 minutes. In addition, THP M-Site is a comprehensive EVT centre with 22.65% of ischemic stroke patients receiving the treatment (KQI#4), of which 83.17% of the procedures deemed successful (KQI#5). In addition, the stroke team is working to ensure patients with

stroke have access to the Comprehensive Stroke Unit (CSU) noting 82% of patients admitted with stroke accessed the CSU (KQI#8). These patients are benefitting from this specialized care by demonstrating few complications following stroke at 6.05% (KQI #9).

The percentage of patients accessing comprehensive inpatient stroke rehabilitation following acute care only meets the minimum threshold at 21.45% (KQI# 12). With limited availability of outpatient, or community-based rehabilitation in the region, the organization is encouraged to review the criteria for admission to inpatient rehabilitation and ensure those that would benefit from intensive rehabilitation are receiving the therapy they need. In addition, the organization is encouraged to work with the WGTASN, CorHealth and Ontario Health partners to determine the number of stroke unit beds required based on the population serviced and potentially advocate for expansion including addressing gaps in community-based stroke rehabilitation.

The surveyor team recommends that the organization closely monitor KQI#14 noting only 51.52% of patients received a depression screen during their inpatient rehabilitation stay during the reporting period. Screening for depression after stroke is vital as 1 in every 4 patients can experience post-stroke depressions with some studies suggesting the incidence is higher and closer to 60% of all stroke survivors experience depression within 2 years of the initial stroke event. Depression may affect the patient's ability participate and is associated with slower recovery and has an impact on quality of life. Patients with a positive screen require timely, comprehensive depression assessment.

Protocols

Stroke protocols are intended for organizations that provide acute and/or inpatient stroke rehabilitation services. The implementation of standardized stroke protocols is a key component of excellence in stroke services. Standardized protocols help ensure that stroke care is people-centred, consistent, adheres to evidence-informed practices, follows the latest evidence-based clinical guidelines for service delivery, and maintains safety and quality across the continuum of care.

Ratings

To achieve an award of Distinction™, organizations must adopt and consistently follow at least 60% of the protocols. Where an organization provides both acute and/or inpatient stroke rehabilitation services, at least 60% of the protocols must be adopted and consistently followed for each service.

REQUIREMENT	RATING
Protocols are based on the current evidence-informed practices for stroke.	MET
Protocols are used by appropriate interdisciplinary team members.	MET
Protocols are included in the client's health record, as appropriate.	MET
Protocols are shared with other health care providers, as appropriate.	MET
Protocols are regularly reviewed, updated, and communicated to all members of the stroke team.	MET

Surveyor Comments

The organization has developed and implemented all acute and inpatient rehabilitation stroke protocols. The stroke protocols are based on the current evidence-based practices. Protocols appear to be reviewed and updated on a regular basis. The front-line interprofessional team members hold a good understanding of these protocols and are comfortable with delivering the appropriate protocols during the right time in a consistent manner to patients with stroke. Protocols are all in Epic medical records and or the THP M-Site HUB. The team has leveraged the use of Epic clinical informatics system by embedding order sets, protocols to guide health care providers in the management of stroke care. The team is encouraged to develop guiding documentation outside of Epic that outlines the process, interventions, priorities, and responsibilities of the team, combining the tips sheets, education video content and the order sets into a single cohesive document that can them be routinely reviewed.

Acute Stroke Services Protocols

REQUIREMENT	PROTOCOL	IMPLEMENTED	RATING
60% of the protocols must be adopted and consistently followed.	Emergency Medical Services (EMS) Stroke screening	IMPLEMENTED	MET
	EMS bypass / direct transport to stroke centres (including air ambulance)	IMPLEMENTED	MET
	EMS pre-notification of suspected stroke	IMPLEMENTED	MET
	Emergency Department notification of hospital-based stroke team	IMPLEMENTED	MET
	Neurovascular imaging for potential stroke clients (rapid access to CT)	IMPLEMENTED	MET
	tPA eligibility screening	IMPLEMENTED	MET
	tPA administration	IMPLEMENTED	MET
	Administering acute ASA therapy	IMPLEMENTED	MET
	Formal criteria for identifying appropriate clients for referral to inpatient rehabilitation	IMPLEMENTED	MET
	Swallowing ability assessment	IMPLEMENTED	MET
	Initial assessment of rehabilitation needs	IMPLEMENTED	MET
	Assessing and managing diabetes mellitus (when present)	IMPLEMENTED	MET
	Pressure injury prevention	IMPLEMENTED	MET
	Falls prevention	IMPLEMENTED	MET

Surveyor Comments

Evidence was present in hyperacute and acute services of the use of established protocols and patient order set which were based on evidence-based practice and included in patient's record. All care teams were able to articulate the use of these protocols. The surveyor was able to observe the use of these protocols during a Code Stroke activation. Timely access to CT, blood glucose levels documentation, eligibility criteria for treatment with IV thrombolytics. Once eligibility is determined and thrombolytics administered the patient is closely monitored by the Code Stroke team as per patient order sets.

Inpatient Stroke Rehabilitation Services Protocols

REQUIREMENT	PROTOCOL	IMPLEMENTED	RATING
60% of the protocols must be adopted and consistently followed.	Formal intake process for triaging client referrals and accepting clients for inpatient rehabilitation	IMPLEMENTED	MET
	Swallowing ability assessment	IMPLEMENTED	MET
	Initial assessment of rehabilitation needs	IMPLEMENTED	MET
	Assessing and managing diabetes mellitus (when present)	IMPLEMENTED	MET
	Pressure injury prevention	IMPLEMENTED	MET
	Falls prevention	IMPLEMENTED	MET

Surveyor Comments

The organization has demonstrated the implementation of all protocols for Inpatient Stroke Rehabilitation Services.

Education for People with Lived Experience of Stroke and Their Families and/or Caregivers

Education and self-management support are integral parts of stroke care that should be addressed at all stages across the continuum of stroke services for stroke clients and their families and/or caregivers. Education is an ongoing and vital part of the stroke recovery process and must involve the stroke client as well as their family members and/or caregivers. Information provided to stroke clients about their journey towards recovery can lead to improved understanding of coping and self-management strategies and improved ability to maintain the strategies over time. Skills training for stroke clients, as well as their families and/or caregivers, often prevents or reduces mental health disorders, and can ease the perceived burden of self-management, consequently leading to improved quality of life. The information provided at each phase of the stroke journey – including acute care, rehabilitative care, community reintegration and long-term recovery should be relevant to the changing needs of stroke clients and their families and/or caregivers. Simply distributing information materials is not sufficient; client education must be interactive in nature. The education process must also be informed by and developed with people with lived experience of stroke.

Ratings

To achieve an award of Stroke Distinction™, the organization's education for people with lived experience of stroke must meet the following requirements:

REQUIREMENT		RATING
Evidence that the stroke education program is an integrated component of stroke care delivery. **All four criteria must be achieved.**	Educational materials for stroke clients and their families and/or caregivers are available and accessible on the unit.	MET
	Educational materials for stroke clients and their families and/or caregivers are available in a variety of languages appropriate to the demographic needs of the defined population.	MET
	Educational materials for stroke clients and their families and/or caregivers are available in formats appropriate for persons with special communicative needs.	MET
	During tracer interviews, stroke clients and their family and/or caregivers report receiving education regarding their recovery and self-management from health care providers that care for them.	MET

REQUIREMENT		RATING
Consistent documentation in the client health record that education has been provided to people with lived experience of stroke and their families and/or caregivers**. Two out of the four criteria must be achieved.**	Standardized tools are used to document education components to ensure that all critical elements are addressed prior to client discharge.	MET
	The client health record includes a standardized location for the documentation of client education activities.	MET
	Each health care professional involved in the stroke care team has documented all education provided within the discipline notes or common progress notes.	MET
	Specific content addressed during each educational session (e.g., skills taught and demonstrated, discharge preparation, etc.) has been documented	MET

Surveyor Comments

Stroke education is an integral component of stroke care delivery. Patients with stroke and their caregivers are provided with education materials to guide their care and are encouraged to ask team members if they have any questions. These education materials are provided early on in their admission to the CSU.

Epic provides a tool within the system for documentation of education. While this is being used by some staff the leadership does acknowledges there is room for improvement.

Multilanguage patient education pamphlets are available. At the time of the onsite survey, the primary education booklet provided to families, “TIA and Stroke Education for Patients and Families”, was only available in English. Availability of multilanguage patient education materials was mentioned as an opportunity for improvement in the organization’s previous survey. In Peel region, 69% of residences identify as a racial group and 50% were born outside Canada. During the visit the surveyor had an opportunity to speak with a stroke patient whose first language was not English, he spoke passionately about hoping for more education in his own language. The surveyor addressed his concerns with the organization and the requirement for education materials be available in the languages they serve. The organization understood and listened to the voice of the patient and acted on this quickly. As a result, the education booklet was sent for translation and before the end of reporting was made available to staff to use in eleven different languages.

Excellence and Innovation Project

Excellence and innovation are key components to improve stroke care. Formally recognizing excellence and innovation as a priority in an organization empowers staff at all levels to make improvements. Excellence and innovation projects encourage knowledge sharing and collaboration around a common improvement goal.

To achieve an award of Distinction™, organizations must implement a minimum of one and a maximum of two Excellence and Innovation project(s) that meet all the following requirements:

- Must be evidence-based and aligned with clinical and best practice guidelines for people-centred stroke care including the latest Canadian Stroke Best Practice Recommendations[1].
- Demonstrates improvement to the overall quality of services within the facility or region.
- Includes a completed project evaluation, and measures sustainability of the project over time.
- Communicates findings within the organization and externally, as applicable.
- Notable for what it could contribute to the delivery of stroke services.

Ratings

To achieve an award of Distinction™, the organization's excellence and innovation project(s) must meet the following requirements:

REQUIREMENT	RATING
The project is evidence based and aligned with clinical practice guidelines for people-centred stroke care, including the latest *Canadian Stroke Best Practice Recommendations*[1].	MET
The project demonstrates improvement to the overall quality of stroke services within the facility or the region.	MET
The project includes a completed project evaluation and measures sustainability of the project over time.	MET
The project communicates findings within the organization and externally, as applicable.	MET
The project is notable for its potential to contribute to the delivery of stroke services.	MET

[1] Heart and Stroke Foundation. (2018). Canadian Stroke Best Practice Recommendations. [https://www.strokebestpractices.ca/recommendations]

Project Name and Description

Implementing a Telemedicine for Hyper Acute Stroke (THAS) system in the Emergency Department

At the height of the COVID-19 pandemic, there was fear that the fallout of the pandemic was going to greatly affect the timely management of hyper acute stroke treatment at the Regional Stroke Centre located at THP M-Site. With the collaboration of neurologists, information technology specialists, hospital administration, and utilizing the principles of the Ontario Telestroke system, a local telemedicine structure was developed. This system allowed the stroke team on call to virtually assess and manage all acute stroke patients arriving in the Emergency Department at THP M-Site.

The protocol for Telemedicine for Hyper Acute Stroke (THAS) system followed the already established Hyper Acute Stroke Protocol in the Regional Stroke Centre. THAS was to be utilized for off hours (outside Monday – Friday 08:00-18:00) and on weekends. The system allows the on-call neurologist to perform virtual assessment and monitoring of the patient through a telemedicine cart with the help of the stroke trained Emergency Department nurse.

Surveyor Comments

The organization has submitted a quality improvement initiative titled Implementation of Telemedicine for Hyperacute Stroke in the Emergency Department (THAS). Telemedicine has been shown to be a safe and effective modality to assess and treat patients with acute stroke who present to a community hospital. To the best of the knowledge of the organization there are no previous reports on using telemedicine to treat patients with acute stroke who present to a comprehensive stroke center.

The organization illustrated findings that there was no difference in the assessment decision and outcome between patients treated using telemedicine (THAS) versus an in-person assessment. Their only finding was the difference in median Door to Needle (DTN) time between patients treated with in-person assessments in 2018 versus 2021, showing a longer DTN time in 2018. It was suggested that this difference was most likely due to patients who presented after-hours in 2018 requiring the stroke neurologist to be called in, creating a longer DTN time. The organization hypothesized that the after-hours DTN times for in-person patients in 2021 were better than those in 2018 because of THAS. In 2018, neurologists would have had to come from home for every after-hours acute stroke activation, which can take time depending on the time of day, traffic, weather, the distance the neurologist lives from the hospital, etc. In 2021, neurologists could use THAS to assess and treat after-hours patients if they thought that their travel time could adversely affect the DTN time.

Currently, the THP M-Site supports other hospitals within the region regarding hyper acute stroke consultations through telephone. THP M-Site has provided evidence of the superiority of telemedicine versus phone use in stroke care. The research has shown that telemedicine consults result in more accurate decision making than telephone. As result, THP M-Site stroke team will be expanding THAS to the regional community hospitals that are not currently part of the Ontario Telestroke program. The organization is encouraged to move forward on this plan to better assist the regional hospitals in making more accurate decisions in the stroke care.

Information and data related to this quality improvement initiative was shared both internally and externally. Internally it was shared through stroke rounds, the plan to move forward with THAS to other sites has been shared with stakeholders. The results of the study have been published in the Journal of Telemedicine and Telecare. The organization has shown evidence of sustainability of this QI initiative over the past three years since 2021. Staff speak to becoming comfortable with the use of THAS.

The organization is encouraged to continue innovative research for future Excellence and Innovation Projects.

Next Steps

Congratulations on completing your Stroke Distinction™ survey! We hope that the findings outlined in this report will guide THP M-Site's ongoing quality improvement activities.

As you know, Stroke Distinction™ requires an ongoing commitment to the highest levels of quality service. To maintain a Stroke Distinction™ award status, it is important to continue to submit Key Quality Indicator (KQI) data. For additional information on submitting KQI data, or on any other aspect of the program, please contact your Accreditation Canada Client Engagement Lead.

Thank you for participating in the Stroke Distinction™ Program and taking this opportunity to improve stroke services for clients, their families, and/or caregivers.