



EVT Quality Performance Discussions- January 2023

Introduction

In the Summer of 2021, CorHealth Ontario initiated an annual cycle of EVT Quality Performance discussions with all EVT programs, Regional Stroke Networks, and the Ministry of Health (MOH). Each cycle consists of a focused performance discussion in the summer, followed by a performance touch base in January. These discussions provide a forum for open dialogue regarding Ontario Health-CorHealth Ontario's EVT Report, which now has 5 full fiscal years of data. The most recent reporting period is FY 21/22.

The purpose of this document is to highlight key issues and common themes which emerged during the January 2023 EVT Volume and Performance Discussions, as well as strategies being used by programs to address these challenges. It should be noted that the January performance discussions serve as an opportunity to touch base on activities discussed during the summer performance calls. These discussions are not as in depth as the summer quality discussions as the primary focus of the January calls is to finalize volume projections for next fiscal year (2023-24).

Provincial Emerging Issues and Themes

Notable issues and themes that emerged during the January EVT Performance discussions have been highlighted below. Although captured as distinct ideas, several of the themes are interrelated and reflect common underlying issues (e.g., health human resources). At times, these themes may build upon or reinforce ideas captured during earlier performance discussions (i.e., FY 2021/22). Previous summaries can be accessed on the CorHealth Website.

❖ Procedure Evolution

Several programs noted that the technology (e.g., stent sophistication) and indications for Endovascular Thrombectomy continue to expand (e.g., distal/posterior circulation occlusion strokes, large core infarcts); and that volumes are anticipated to grow beyond what was what originally anticipated (i.e., growth from expanded time windows, and regional assessment and referral optimization). However, the full impact of this growth may not be realized for several years as trials are still underway, and new evidence continues to emerge. Nonetheless, several programs did indicate that they are actively participating, and enrolling patients in the trials and that they are also beginning to treat more distal/posterior circulation occlusions, outside of the trials. The need to accommodate this growth and consider the potential impact of new indications on performance results was raised by several programs (e.g., door to reperfusion time, patient outcomes)

❖ Post Procedure Capacity

Several EVT Programs indicated post-procedure capacity challenges, including access to Level 2 Step Down Beds, and stroke unit beds. The need for dedicated post-procedure beds and timely repatriation, once the patient is stable, was emphasized by several programs, as well as the need to optimize patient flow along the entire continuum of care (i.e., acute to rehabilitation). These efficiencies are becoming even more critical as the indications for EVT continue to expand, and volumes continue to grow, putting additional pressure on EVT sites.

❖ Optimizing Regional Access

Optimizing regional access to EVT was identified as a key focus area for several programs; in particular, patient identification, and processes of care at referral sites. Several programs described efforts to support adoption of Large Vessel Occlusion Screening tools and Automated CT Perfusion Software to enable better patient selection and access to EVT. Programs did note, however, that regional engagement and education has been difficult due to staff turnover and other system pressures.

Program Sharing

During the meetings, programs described several activities underway to improve quality and access. These activities, including the area of focus, have been captured below to promote sharing.

Area of Focus	Strategy/Quality Improvement Initiative
Optimizing Regional Access	<ul style="list-style-type: none"> ➤ Health Sciences North is developing new partnerships and patient pathways to promote access <ul style="list-style-type: none"> • After extensive engagement with North Shore Health Network- Blind River Site and Sault Area Hospital, it was decided that patients presenting to Blind River would be transferred to Health Sciences North, as opposed to Sault Area Hospital. This decision reflects comparable distances, and efficiencies with respect to door to needle time, and direct access to EVT at Health Sciences North ➤ The Champlain Regional Stroke Network successfully completed a revamp of protocols at all referral sites to ensure patients are identified and triaged in a timely manner <ul style="list-style-type: none"> • Resources to support assessment and management of patients presenting with TIA and stroke were implemented at all hospitals across Champlain regions in 2022. Each resource (e.g., decision algorithms) was tailored to the

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	<p>individual needs of the hospital to optimize use by the Emergency Department team</p> <ul style="list-style-type: none"> ➤ The Central South Stroke Network is working to ensure equitable access to EVT throughout the region <ul style="list-style-type: none"> • The Central South Stroke Network has launched a new quality improvement initiative that aims to identify factors contributing to variability in access across the region. A Quality Specialist will be supporting a root cause analysis to determine opportunities for improvement ➤ The Northwestern Ontario Regional Stroke Network completed an education “roadshow” to support adoption of 6–24-hour protocols at all referral sites in the North West <ul style="list-style-type: none"> • As part of the education “roadshow” the Regional Network Team delivered on-site education regarding the expanded treatment window for stroke, and the use of Large Vessel Occlusion screening tools in the Emergency Department. The region is now live with 6-24 hour protocols ➤ The Southwestern Ontario Stroke Network is supporting adoption of LVO Screening tools in Emergency Departments across the region <ul style="list-style-type: none"> • 8 of the 27 non-tPA sites have successfully implemented the ACT FAST screening tool in their emergency department
Ensuring Timely Access to Care	<ul style="list-style-type: none"> ➤ Trillium Health Partners is focusing on improving CT/CTA to Puncture Times <ul style="list-style-type: none"> • Trillium Health Partners is completing a process mapping exercise to understand factors contributing to time delays between diagnostic imaging and puncture, this mapping will be used to identify change ideas aimed at reducing door to puncture times ➤ The Champlain Regional Stroke Network is using a reward program to incentivize faster care as part of their larger DTN Initiative <ul style="list-style-type: none"> • Pins are rewarded to team members who achieve DTN times ≤ 30 minutes. This simple gesture has gone a long way in boosting team morale and friendly competition. Opportunities to expand this program to facilitate faster angiosuite arrival to puncture time are being explored ➤ Unity Health Toronto is working to improve timeliness after hours <ul style="list-style-type: none"> • UHT is implementing new processes after hours to reduce door to puncture times (e.g., the daytime team is preparing the angiosuite by pre-stocking covered intervention tables and training is in progress for CT techs to open

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	<p>the room, start the machine and help get the patient on the table to reduce time once EVT operator arrives)</p>
<p>Optimizing Patient Outcomes</p>	<ul style="list-style-type: none"> ➤ Health Sciences North and Hamilton Health Sciences Centre are taking a closer look at mortality and the key factors contributing to patient outcomes <ul style="list-style-type: none"> ● Health Sciences North is participating in a NOAMA-funded project to understand co-morbidities of the cohort of patients from Northeastern Ontario and outcomes post-EVT, in particular factors contributing to mortality ● The team at Hamilton Health Sciences Centre will be using the Phases of Care Mortality Analysis to better understand factors that may contribute to mortality along the patient pathway, so that action can be taken to minimize poor outcomes ➤ Kingston Health Sciences Centre- Kingston General Hospital site is exploring outcomes of EVT patients in the different treatment time windows (i.e., patients presenting within 0-6 and 6-24 hours post stroke symptom onset) <ul style="list-style-type: none"> ● KHSC is manually collecting Modified Ranking Scores (mRS) at discharge and, where available, mRS scores again at 90 days for all EVT patients. This information is then stratified by those presenting early and late in the time window to enable some understanding of patient outcomes in these two populations. This information is presented to their EVT Workgroup every 6 months and shared annually with referring partners
<p>Overcoming Staff Turnover</p>	<ul style="list-style-type: none"> ➤ University Health Network is supporting new staff with targeted education <ul style="list-style-type: none"> ● To support new staff and ensure door to needle improvements are sustained, the Nurse Practitioner team at UHN is developing an education package to support stroke identification, and door to CT processes
<p>Pre-Registration</p>	<ul style="list-style-type: none"> ➤ Sunnybrook Health Sciences Centre (SHSC) is expanding the use of pre-registration <ul style="list-style-type: none"> ● After successfully launching pre-registration during day-time hours for CritiCall transferring patients, SHSC is expanding this practice to evening hours, with plans to implement on weekends in phase 2. Faster door to puncture times have been observed, where implemented. Plans are underway to implement this for code stroke patients from the field.

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	<ul style="list-style-type: none"> ➤ Windsor Regional Hospital has overcome the data quality challenges of pre-registration <ul style="list-style-type: none"> • The District Stroke Centre Team is collecting arrival times and submitting directly to health records to ensure data accuracy
Expanding Capacity and Equipment	<ul style="list-style-type: none"> ➤ Unity Health Toronto is expanding angiosuite and health human resource capacity <ul style="list-style-type: none"> • To support growing volumes, UHT is building a second biplanes suite, and is in the process of hiring two new interventionalists ➤ Health Sciences North is upgrading their angiosuite <ul style="list-style-type: none"> • The Purchasing Order has been approved to replace both angiosuites at Health Sciences North; a biplane will be implemented in one of the suites. The anticipated “go-live” date of Fall 2023. The team anticipates that the biplane will improve intraprocedural efficiencies. ➤ Thunder Bay Regional Health Science Centre (TBRHSC) is upgrading equipment. <ul style="list-style-type: none"> • TBRHC has purchased a new aspiration pump which will enable more procedures to be completed “in house” ➤ Trillium Health Partners (THP) To improve capacity and minimize referrals to the secondary EVT site (R2), THP is expanding the team to include 5 Neurointerventionalists (includes 1 locum),
Automated CT Perfusion Software at Referral Sites ¹	<ul style="list-style-type: none"> ➤ Access to Automated CT Perfusion Software is growing in Northwestern Ontario, Southwestern Ontario and the Champlain Regional Stroke Network <ul style="list-style-type: none"> ○ In the Northwest, Lake of the Woods has successfully implemented Automated CT Perfusion, and other Telestroke Sites (i.e., Dryden Regional Health Centre, Fort Frances Riverside Health Care Facilities – LaVerendrye Hospital) are anticipated to implement in 2023/24 ○ In the Champlain region, Automated CTP Perfusion has successfully been implemented at both TOH campuses, Cornwall, Montfort, and Hawkesbury. ○ In the Southwest region, Grey Bruce Health Services- Owen Sound has approved purchase of the RAPIDAI software, making it the third (Bluewater Health and Windsor Regional Hospital implemented in 2021) referral site in the Southwestern Ontario Stroke Network to adopt

¹ This list represents recent onboarding/discussions. Other sites/regions may have already implemented RAPIDAI at referral sites

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	<p>RAPIDAI software. London Health Sciences Centre, and Stratford General Hospital are actively engaged in dialogue regarding the software.</p> <ul style="list-style-type: none"> ➤ Several Networks are actively engaging referral sites to promote adoption of Automated CTP Software, including <ul style="list-style-type: none"> ○ Northeastern Ontario Stroke Network has initiated discussions with District Stroke Centres regarding purchasing of the software ○ West GTA Stroke has initiated discussion with referral sites, and anticipates adoption to enable direct to angiosuite protocol