



CARDIOVASCULAR HEALTH & STROKE

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Key Partners

[Campus Alberta Neuroscience](#)

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[Heart and Stroke Foundation](#)

[Hotchkiss Brain Institute \[University of Calgary\]](#)

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Major initiatives and achievements, 2022-2023

The Cardiovascular Health and Stroke (CvHS) SCN continues to advance care for stroke patients and individuals with cardiovascular conditions by forging strategic partnerships, prioritizing research, and effectively translating knowledge from clinical trials into practice.

Over the past year, the CvHS SCN actively engaged in various community outreach and capacity-building initiatives. We extend our gratitude to the front-line clinicians, operational leaders, and patient and family partners who have tirelessly served the cardiovascular and stroke communities and supported progress on several initiatives and programs related to stroke and cardiovascular care.

Provincial Clinical Pathways Support Unit supports integrated care for HF/COPD

The Provincial Clinical Pathways Support Unit (CPSU) has been instrumental in promoting integrated care for heart failure (HF) and chronic obstructive pulmonary disease (COPD). Recognizing the high cost of clinical variation in these populations, these pathways aim to enhance quality of care by reducing variation, minimizing hospital stays, readmissions, and emergency room visits, and ensuring timely follow-up with primary and community care.

Significant strides have been made in implementing the HF and COPD Care Paths and associated reporting tools with the successful launch of Connect Care in May 2023. The launch extends the number of facilities able to access and use the HF/COPD Care Paths. Within six months of going live, more than 50% of HF/COPD patients at Connect Care sites had been enrolled in the Care Path, demonstrating better access to evidence-based care.



Educational resources aligned with best practice recommendations and guidelines were developed for prescribers, nurses, physicians, and allied health professionals to support uptake. The Scientific Planning Committee also hosts regular learning sessions to facilitate practice reflection and foster Q&A opportunities.

Implementation phase underway for the Acute Care Bundle Improvement and Enhanced Lipid Reporting initiatives

ACBI is a collaborative partnership driven by operations and supported by Provincial teams and SCNs. Its goal is to enhance patient outcomes and acute care efficiencies while streamlining the operational burden associated with multiple projects, programs, and clinical pathways. Its implementation is being coordinated with Connect Care launch cycles at Alberta's 14 highest-volume acute care sites. The Royal Alexandra Hospital and Peter Lougheed Centre served as initial pilot sites, followed by the Foothills Medical Centre and Red Deer Regional Hospital Centre. HF/COPD Care Paths are components of the ACBI framework and aim to deliver high-quality care, improving patient outcomes, enhancing experiences for patients, families, and providers, and adding value to the health system. To date, 12 AHS and Covenant Health sites have begun using the HF/COPD Care Paths and order sets, with uptake expected to increase over the coming year with the remaining Connect Care launch cycles.

Another noteworthy achievement involves implementation of Enhanced Lipid Reporting (ELR), which enables increased screening and treatment of patients at risk of cardiovascular disease (CVD). Primary care providers receive a lab-based screening tool that uses an algorithm to calculate the patient's risk of heart attack or stroke within the next 10 years. Reports are sent to the referring provider, clinical team (via Netcare), and the patient (via MyHealth Record). ELR provides a clear explanation of the patient's risk score and up-to-date treatment guidelines. The CvHS SCN secured a Health Innovation, Implementation, and Spread (HIIS) grant to support provincial rollout of this tool, including strategies to assist primary care physicians and patients. Extensive engagement efforts are underway with provincial primary care associations and networks to promote ELR, and a comprehensive array of provider and patient resources has been developed and disseminated throughout the province to support its spread in all parts of the province.

Other highlights

Moving evidence into practice: The ACT Trial

The CvHS SCN has been closely collaborating with researchers on the Alberta-led ACT trial. This randomized-controlled clinical trial has demonstrated the non-inferiority of tenecteplase to alteplase as an injectable medication for the treatment of acute ischemic stroke. Results of the trial were published in [The Lancet](#) in June 2022. Two key benefits of tenecteplase are that it can be administered as a single bolus (e.g., during transport in ambulance to hospital) and has a more favorable benefit-to-risk profile than alteplase.

Following the trial, the SCN and Provincial Pharmacy sought AHS approval to transition to tenecteplase province-wide. This practice shift has reduced burden on emergency department staff, facilitated inter-facility transport using Basic Life Support (BLS) crews, and reduced equipment needs given the simpler administration of the medication. Once the practice change was approved, the CvHS SCN and Provincial Pharmacy developed a transition plan, which involved rural stroke centers transitioning to tenecteplase by November 1, 2022, while diverting the previously purchased alteplase stock for stroke treatment to urban centers. Within three months, back stock of alteplase had been used, and urban zones were able to complete the transition to tenecteplase as well.

Effective communication and collaboration with Provincial Pharmacy, EMS, Medicine SCN, Emergency SCN, Critical Care SCN, and zone stroke programs played a crucial role in executing the transition plan provincially. Zone stroke programs worked closely with the CvHS SCN to update order sets, develop protocols, and create educational materials to support the shift in practice. In May 2022, approximately 95% of all thrombolysis cases used alteplase. By February 2023—just one month into the province-wide transition—approximately 97% of thrombolysis cases utilized tenecteplase.

Enhanced data sharing and reporting of provincial stroke data and key performance indicators

Recognizing the highly effective nature of Endovascular Therapy (EVT) in treating stroke and its potential to reduce death, disability, and long-term care costs, the CvHS SCN co-developed a [position statement](#) that advocates for extending the EVT window from 6 hours to 24 hours from the time of onset. To support the 17 stroke sites across Alberta in understanding the implications of the expanded time window on patient flow and volumes, the team collaborated with EMS System Performance & Innovation and AHS Data & Analytics to generate reports analyzing six years of provincial data. These reports provide valuable evidence and insights into the changes and have been shared with zone stroke leads to support the transition to the 24-hour treatment window.

Previously, provincial stroke reporting has relied heavily on manual data entry at the site level. With the launch of EPIC, there is an opportunity to automate data collection for most key performance indicators (KPIs) and enhance reporting processes. To standardize reporting and facilitate coordination across all stroke sites, the CvHS SCN has been collaborating with zone stroke programs and EPIC teams to develop reports using Connect Care data. Provincial cardiac teams are also working on similar reporting mechanisms for cardiovascular KPIs.

Impacts on health and care

Over the past year, the CvHS SCN has supported a variety of provincial initiatives that have:

- ▶ Advanced knowledge in the area of cardiovascular and stroke care
- ▶ Resulted in provincial implementation of tenecteplase across Alberta
- ▶ Improved access to EVT, particularly for rural Albertans, by expanding the EVT treatment window to 24 hours
- ▶ Supported screening and care enhancements, practice change, and improved outcomes for Albertans who experience or are at risk of cardiovascular disease or stroke.
- ▶ Contributed to the implementation of care paths and clinical pathways for COPD and HF, as part of ACBI. This work is expected to improve quality of care by reducing clinical variation; hospital stays, readmissions, and emergency visits; and improving patient transitions in care and value across the system.

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Grants and Publications		Engagement		Outcomes and Impact
	76 Peer-reviewed Publications		84 Workshops & Presentations	97% of Alberta thrombolysis cases treated with tenecteplase instead of alteplase
	\$7.3M Research Grants		185 Research Members	12 Alberta acute care sites using HF/COPD Care Paths & order sets

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