



# CARDIOVASCULAR HEALTH & STROKE

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Heart and Stroke Foundation

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Libin Cardiovascular Institute [University of Calgary]

Mazankowski Alberta Heart Institute

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Agnes Lehman, BScOT, MSChP

**Cardiac:** Dr. Michelle Graham,  
MD, FRCPC University of Alberta (to  
Dec 2021)

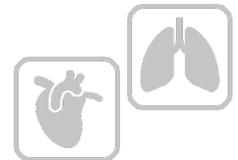
## Major initiatives and achievements, 2021-2022

The Cardiovascular Health and Stroke (CvHS) SCN continues to advance care for stroke patients and people with cardiovascular conditions. The SCN is actively engaged in strategic partnerships to optimize cardiovascular and stroke care, prioritize research and mobilize knowledge from clinical trials into practice.

The COVID-19 pandemic continued to impact the CvHS SCN this year and many members were called to increase their service in various capacities. Once again, we would like to acknowledge and thank our front-line clinicians, operational leaders, and patient and family partners who actively served and continue to serve the cardiovascular and stroke communities.

### Provincial Clinical Pathways Support Unit (CPSU) supports integrated care for HF/COPD

AHS identified heart failure (HF) and chronic obstructive pulmonary disease (COPD) as priority areas for clinical pathway development given the high cost of clinical variation for these populations. The goal for the CPSU is to improve quality of care by reducing clinical variations, reduce hospital stays, hospital readmissions and emergency room visits, and provide timely follow up with primary/community care.



A focused examination of barriers and facilitators to clinical pathway uptake in 2020 revealed multiple, competing, yet similar provincial priorities and practices that created challenges for our operational partners. In response, CvHS led an exercise across 8 SCNs and Provincial Programs to streamline initiatives to support more efficient uptake and implementation. This work, completed over the past year, integrated 8 separate evidence-based, patient-centred provincial initiatives and clinical pathways into a streamlined bundle of quality initiatives (one for Surgery and one for Medicine) called the **Acute Care Bundle Improvement (ACBI) initiative**.

ACBI is an example of a partnership led by operations and supported by Provincial Teams and SCNs to improve patient outcomes and acute care efficiencies while reducing the operational burden of implementing multiple—and sometimes overlapping—projects, programs, and clinical pathways. This work is provincial in scope and directly supports recommendations in the AHS Performance Review Summary Report (2019).

The Heart Failure and COPD Care Paths, which include comprehensive reporting tools, were launched in Connect Care at multiple sites in March and all Connect Care sites in July. Care Path Educational Tools have been developed for prescribers (physicians, nurse practitioners and pharmacists), nurses and allied health. These tools are aligned with new best practice recommendations and guidelines and will be available on MyLearningLink, including accredited modules for physicians.

### Improved screening identifies Albertans at risk of cardiovascular disease

Enhanced lipid reporting provides an opportunity for increased screening and treatment of patients at risk of cardiovascular disease (CVD) by providing primary care physicians with a lab-based screening tool. The lab uses an algorithm to calculate the patient's chance of having a heart attack or stroke in the next 10 years and sends a report to the referring physician that explains the patient's risk score and provides up-to-date treatment guidelines.

The CvHS SCN has secured a Health Innovation, Implementation and Spread (HIIS) grant to support the provincial rollout of the new tool, including strategies to support primary care physicians and patients. As part of the strategies to support patients in CVD screening and prevention, the HIIS-grant team have created a new CVD screening webpage on MyHealth.Alberta.ca with four patient directed videos: [What is cardiovascular disease?](#) | [Cardiovascular disease risk screening](#) | [Reducing your cardiovascular disease risk: Statins & lifestyle changes](#) | [Why screen for cardiovascular disease: A patient perspective](#)

## Optimizing stroke care and cardiovascular investigations for every Albertan

Endovascular therapy (EVT) is a highly effective treatment for stroke that dramatically reduces death, disability, and long-term care costs. The CvHS SCN continues to build off the positive scientific findings from the ESCAPE clinical trial and has developed comprehensive systems to increase timely, equitable and safe access to EVT for all Albertans. This program of work is known as Endovascular Reperfusion Alberta (ERA).



Through ERA, access to EVT has increased exponentially from a baseline of 206 EVT cases in 2016/17 to 369 procedures in 2021/22. Moreover, access to EVT in rural communities has increased from approximately 17% of patient receiving EVT in 2016/17 to 22.8% in 2021/22. A return on investment (ROI) analysis of EVT in Alberta has been conducted and initial estimates suggest a potential 3:1 ROI for the program (i.e., for every dollar invested in EVT, the healthcare system saves \$3.6 dollars).

Inspired by a request for a succinct quarterly report, the CvHS SCN's EVT and DTN Stroke Leadership developed a one-page summary of key metrics and trends for EVT and lytic therapy that is now circulated to AHS executive and zone leadership across the province. Customizable tableau reports were also developed for local stroke teams that provide a more detailed analysis of these processes and are being used to inform local quality improvement work.

Work has also begun with our partners to implement a 24-hour EVT treatment window, an evidence-based shift in practice from the traditional 6-hour treatment window. We are grateful to our colleagues for their continued interest and engagement with this upcoming change despite pandemic pauses. We anticipate significant progress in the coming year for our stroke communities.

Results from the PER DIEM study, a combined cardiac-stroke effort focusing on rhythm detection (Atrial Fibrillation, AF) after stroke, have been used to inform the Canadian Stroke Best Practices Guidelines pertaining to stroke investigations. The PER DIEM study is now complete, but we continue to evolve this work and look for additional opportunities to support research on remote monitoring and recovery after a stroke.

### Actions and areas of focus

- Optimizing patient care (reducing low-value activities, improving access, etc.)
- Reducing inequities in care and outcomes
- Enhancing prevention and integration of health promotion and wellness
- Collaborative partnerships, research and innovation to inform decision making
- Development of clinical pathways, guidelines and dashboards
- Vascular risk reduction policies and sustainability
- Surveillance and monitoring of risk factors and health system utilization

### Impact on health and care

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

- Advanced knowledge in the area of cardiovascular and stroke care
- Improved access to EVT, particularly for rural Albertans.
- 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 and development of the ACBI initiative, which are all 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.

## CARDIOVASCULAR HEALTH AND STROKE

### Grants and Publications



69

Peer-reviewed Publications



18

Workshops & Presentations

### Outcomes and Impact

100%

of sites that have launched Connect Care are able to access HF/COPD Care Paths and reporting tools



\$4.7M

Research Grants



184

Research Members

3:1

preliminary estimate of return on investment for ERA program (\$)

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