

# Cardiovascular Health and Stroke

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#### **Key Partners**

<u>Campus Alberta Neuroscience</u> Heart and Stroke Foundation Hotchkiss Brain Institute [University of Calgary]

Libin Cardiovascular Institute [University of Calgary]

Cardiovascular Research Institute (CVRI) [University of Alberta]

### Major milestones and achievements, 2023-2024

Over the past year, the Cardiovascular Health and Stroke (CvHS) Strategic Clinical Network (SCN) has advanced several key initiatives that support the health of Albertans through prevention, collaboration, strategic partnerships (Heartway™), research and innovation. Our community outreach and capacity-building initiatives have been instrumental in fostering collaboration and expertise across the province. We are deeply grateful to our frontline clinicians, operational leaders, and patient and family partners who have tirelessly served the cardiovascular and stroke communities. Their dedication has been pivotal in advancing strategic initiatives and programs that continue to improve stroke and cardiovascular care, outcomes and value for the people of Alberta. Together, we have translated evidence from clinical trials into practice, made significant progress in priority areas.

### Provincial Clinical Pathways Support Unit (CPSU) supports uptake of HF/COPD Care Paths



The CPSU team has been integral in designing, testing, implementing, reporting, and evaluating the first Care Paths for Heart Failure (HF) and Chronic Obstructive Pulmonary Disease (COPD). These Care Paths have been integrated into Connect Care and used at 82 sites across Alberta. The network has worked closely with clinical operations to ensure these Care Paths provide evidence-informed guidance on best practices to optimize patient care.

The team has developed key resources to support the uptake and use of these Care Paths, including comprehensive reporting dashboards, educational tools and accredited training modules for physicians, allied health professionals, and nurses, with over 45,000 completions to date. The data dashboards incorporate provincial quality improvement metrics, so clinicians and health leaders can readily monitor,

report and optimize performance. Additionally, the CPSU is optimizing Connect Care workflows for cardiac function clinics, enhancing efficiency by standardizing processes and policies, including nurse prescribing.

#### Enhanced Lipid Reporting expands screening and prevention for cardiovascular disease

The provincial spread and scale of Enhanced Lipid Reporting (ELR) has been a notable achievement. ELR is a lab-based screening and prevention program that uses the Framingham Risk Score (FRS) to evaluate a patient's risk of cardiovascular disease (CVD). ELR has been integrated into Connect Care and has the potential to create a measurable impact on CVD prevention as its uptake continues to grow. As of March 2024, 33,659 FRS tests have been ordered in Alberta, with 47% of family physicians currently using ELR (nearly doubling our initial implementation target). Approximately 9,000 patients identified as high risk have seen an 11% increase in statin prescriptions.

#### High-sensitivity Troponin pathway aims to improve quality of care and outcomes at all acute care sites

Troponin is a protein found in heart muscle that helps the muscle contract. Elevated levels of troponin appears in the blood when heart muscle is damaged, for example, when a patient has had a heart attack (myocardial infarction). The CvHS SCN has been working with clinicians, zone leadership and Alberta Precision Laboratories to develop and adopt a single 2-hour high-sensitivity troponin test for patients who present with chest pain in emergency settings. The aim is to be able to rule out NSTEMI myocardial infarction (a less severe form of heart attack). Over the past year, the team has developed an incorporated a 2-h troponin testing algorithm into Connect Care to ensure workflow standardization and patient equity.



Implementation is underway, and is being staged by zone. Over the past 12 months, the pathway has been rolled out to approximately half the province. This province-wide initiative will see high-sensitivity troponin I (hs-TnI) testing introduced in over 40 rural facilities, enhancing efficiency and care quality for people across Alberta.

## Other highlights

### Evaluation, expansion, and data and service enhancements for provincial stroke initiatives

This year marks the one-year anniversary of the provincial rollout of tenecteplase for acute ischemic stroke treatment. The CvHS SCN Scientific Office continues to evaluate the impact of this practice change. We also continue to evaluate and estimate the impact of expanding the Endovascular Therapy (EVT) treatment window on emergency departments in all zones. This expansion, which aligns Alberta's practice with Canadian Stroke Best Practice Recommendations, ensures equitable access to care, especially for rural patients, and is supported by ongoing collaboration with EMS, STARS air ambulance, and zone stroke partners.

The team has also worked closely with Connect Care partners to migrate data elements and key performance indicators (KPIs) to EPIC, Alberta's provincial clinical information system. This effort will significantly reduce the data collection burden on frontline teams. Builds for reporting "real-time" Door-to-Needle (DTN) times and other KPIs are in the final validation phase, which will allow us to sunset the manual data registry.

In 2023-24, we also engaged stroke leaders and clinicians to map stroke rehabilitation programming in Alberta, identifying gaps and optimizing care delivery. And we reviewed and updated the 2015 Stroke Action Plan Partnership Service Agreement to enhance access, quality, and clinical outcomes for stroke care in 13 rural and small urban centers, again transitioning from manual data collection to using Connect Care for improved efficiency.

### Impact on health, care, quality or performance

Over the past year, the CvHS SCN has led studies and supported a variety of provincial initiatives to achieve our vision of "*Healthy hearts and brains for all Albertans.*" These efforts include:

- Advancing knowledge and health innovation in the area of cardiovascular and stroke care
- Improving access to endovascular therapy (EVT), particularly for rural Albertans.
- Supporting screening and care enhancements, practice change, and outcome improvements for Albertans who experience or are at risk of cardiovascular disease or stroke.
- Developing quality indicators for cardiac and stroke care
- Contributing to the implementation of care paths and clinical pathways for COPD and HF, and refinement and scaling of Acute Care Bundle Improvement, which are expected to improve quality of care by reducing clinical variation, hospital stays, readmissions and emergency visits, and improving patient transitions and value across the system.

#### CARDIOVASCULAR HEALTH & STROKE SCN

**Publications & Grants** 

**Engagement** 

**Outcomes and Impact** 



62

Peer-reviewed Publications



**03**Presentations & Workshops

82 sites

across Alberta have used the Heart Failure & COPD Care Paths



\$10.2M

Research Grants



185
Research Members

47%

of family physicians in Alberta have used ELR as a screening tool to assess CVD risk in their patients

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