

The Acute Stroke Pathway supports fast and thorough assessment of stroke patients and improved access to stroke-mitigating treatments in the critical first hours after symptom onset. The Acute Stroke Pathway was officially launched province-wide in January 2017.

Primary Stroke Centres

Hospitals with advanced imaging including CT Angiography are considered primary stroke centres and have been designated as bypass destinations for acute stroke patients. The Acute Stroke Pathway continues to work with partners at these sites to build capacity to meet all the criteria for primary stroke centres and to achieve Canadian Best Practice Guidelines targets for imaging and treatment times.

Pre-hospital Assessment

EMS stroke alert protocols have now been updated province-wide to reflect Acute Stroke Pathway protocols and Canadian Stroke Best Practice guidelines. All stroke patients within 6 hours of symptom onset are emergently transported to a regional hospital for evaluation.

Most health regions have implemented the discretionary 12-hour window as the standard for acute stroke transport and evaluation. A growing body of research indicates that endovascular therapy (EVT), offered at Royal University Hospital, can significantly improve outcomes for eligible patients up to 12 hours from symptom onset.

Staff at Royal University Hospital have developed and tested additional criteria to allow EMS and other providers to identify potential EVT patients for priority transport to a surgical centre. Planning for implementation of the VAN criteria (which stands for vision, aphasia, neglect) is currently under way.

Advanced Imaging

Access to stroke-mitigating treatment is dependent upon patients receiving CT-Angiography in a timely fashion. Acute Stroke Pathway protocols and Canadian Stroke Best Practice guidelines require CTA to be performed on all stroke alert patients within 15 minutes of arrival at a primary stroke centre.

Telestroke

Once imaging has been done, ER physicians normally consult an internist if one is available on site, or a neurologist (in Regina or Saskatoon) by telephone.

Telestroke technology provides the option to consult stroke specialists through clinical videoconferencing. In testing, both ER physicians and neurologists find that telestroke adds value by allowing consulting specialists to examine patients for subtle symptoms, and also to speak directly with patients and families about treatment.

Hyperacute Stroke Treatment

An estimated 20% of ischemic stroke patients may be eligible for TPA or EVT if they are identified, transported and evaluated in a timely fashion. These treatments can improve outcomes for patients and reduce downstream costs to the health system.

Canadian Stroke Best Practice Guidelines set a target to administer TPA within 30 minutes of stroke patient arrival at a primary stroke centre. 30 minutes has proven to be a challenging target, but stroke teams are working hard to save brain cells by shaving minutes from assessment and treatment times. Since the launch of the Acute Stroke Pathway in January 2017, median door to needle times have ranged from 28 to 60 minutes among reporting regions. Some of the first regions to implement pathway protocols have tracked substantial improvements. In RQHR, for example, median 2016 door to needle time was 66 minutes – which is down to 58 minutes to date in 2017.

Data Collection and Reporting

Continuous improvement of stroke care requires stroke teams to collect data, monitor targets, and communicate about successes and failures. The Acute Stroke Pathway continues to work with facilities on data collection strategies and a process for system-wide reporting and reflecting on stroke care incidents.

Saskatchewan Stroke Expert Panel

The Saskatchewan Stroke Expert Panel, formed in 2016, is tasked with maintaining the Acute Stroke Pathway and identifying other opportunities to improve stroke care. Secondary stroke prevention and stroke rehab services have been identified as priorities moving forward.