

Stroke Services BC Position Statement

Date of Update: April 19, 2026

Anticipated Date of Review: Spring 2028

Topic: Definition of a ‘Hot Stroke’

Summary Recommendation: In BC, a “Hot Stroke” is defined as any new, sudden onset, focal neurological deficits associated with a specific vascular area presenting within 6 hours of last seen normal or has woken up with symptoms. This definition can be further applied within two operational contexts:

Pre-hospital / community presentation:

A person is considered a “Hot Stroke” if BC Emergency Health Services (BCEHS) arrives to the patient within 6 hours of last seen normal or the patient has wake-up stroke symptoms. This definition also applies to patients who self-present to a healthcare facility within the same time window.

Emergency Department and In-hospital stroke:

For patients in the emergency department or those who develop stroke symptoms while already in hospital, treatment for disabling stroke symptoms caused by large vessel occlusion (LVO) may be considered up to 24 hours from symptom onset or last known well, depending on clinical and imaging findings.

Context for Change:

The initial “Hot Stroke” definition allowed the province to come to a consistent understanding of a term commonly used in hyperacute stroke care. This update reflects the changing landscape and evidence that informs treatment decision making. The narrower time-based definition remains in place for the pre-hospital setting. This reflects the realities of transport times and hospital capacity. The broader definition for emergency department and in-hospital services reflects the evolving literature and best practices for extended window treatments. The decision for extended window treatment requires advanced imaging and clinical decision making, thus the expanded timeframe will only be applicable to the hospital setting at this time.

Description:

“Hot Stroke” is a term that is used colloquially to describe someone experiencing a stroke that may benefit for time-sensitive stroke treatment. In BC, a “Hot Stroke” is defined as any new, sudden onset, focal neurological deficits associated with a specific vascular area presenting within 6 hours of last seen normal or has woken up with symptoms. Common symptoms include:

- Motor weakness and/or sensory changes in the face, arm, and/or leg, typically unilateral

- Speech changes including slurred speech, difficulty or inability to produce or understand speech
- Vision changes including gaze deviation or hemianopsia

The timeframe for “hot stroke” extends beyond the historical 4.5-hour window for intravenous thrombolysis. Advances in imaging and endovascular therapy (EVT) have expanded the population of patients who may benefit from acute treatment. Selected patients with large vessel occlusion may be eligible for EVT up to 24 hours from the time they were last known well, depending on clinical and imaging findings. Treatment for disabling stroke symptoms with LVO may be considered up to 24hrs from symptom onset or last seen normal with advanced imaging and Neurology consult. Patients expected to benefit from extended window treatments would have one or more of the following symptoms:

- Disabling weakness
- Aphasia (not slurred speech)
- Neglect
- Gaze deviation
- Visual field cut (not monocular vision loss)

Evidence:

The Canadian Stroke Best Practice Recommendations (update 2022 & interim update 2025) recommends intravenous thrombolysis when symptom onset is <4.5 hours and may be given up to 9 hours from LSN in select patients with advanced imaging and consult with a stroke expert. Endovascular therapy (EVT) is indicated when symptom onset is <6 hours and should be considered for patients presenting within 24 hours of LSN. Patients presenting 6-24 hours from LSN require advanced imaging and consult with a stroke expert and interventionalist.

Rationale/Consensus:

The shifts in the landscape of hyperacute stroke therapy have prompted significant review of systems that could improve access to care for this life- and disability-saving procedure. Extending the in-hospital Hot Stroke window to 24 hours for select patients will ensure that people potentially appropriate for EVT can be identified, without unduly burdening the system. The state of evidence in this area continues to evolve and it’s possible this definition of ‘hot stroke’ will continue to evolve as well. When in doubt, it is more important to treat new symptoms of stroke as medical emergency with potential to treat rather than focus solely on the time. This is particularly important for people with symptoms suggestive of large vessel occlusion. SSBC leadership, in partnership with clinical leaders across the province and country, will continue to monitor the evolving literature and will review the provincial stroke definition as needed.

Approved by:

- SSBC Clinical Advisory Committee
- SSBC Executive Stroke Steering Committee

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