# CANADIAN STROKE BEST PRACTICE RECOMMENDATIONS

## Acute Stroke Management

### Seventh Edition, Update 2022

**Box 8A: Optimal Acute Inpatient Stroke Care**

*Heran M, Shamy M (Writing Group Chairs)*
*on behalf of the Canadian Stroke Best Practice Recommendations*
*Acute Stroke Management Writing Group and in collaboration with the*
*Canadian Stroke Consortium*

## Box 8A Optimal Acute Inpatient Stroke Care

### Definitions

**Acute stroke unit:** A specialized, geographically defined hospital unit dedicated to the management of patients with stroke, staffed by an experienced interdisciplinary stroke team, and providing a complex package of evidence-based care (e.g., protocols, care pathways) for acute stroke management, early rehabilitation, and education to patients with stroke in hospital.

**Rehabilitation stroke unit:** A specialized, geographically defined hospital rehabilitation unit dedicated to the management and recovery of people following stroke. These units accept patients for intensive rehabilitation provided by an interdisciplinary team, once patients are medically stable, usually within five to seven days after an acute stroke event. *Refer to CSBPR Rehabilitation and Recovery Following Stroke, Section 2 for additional information.*

**Comprehensive stroke unit:** A comprehensive stroke unit is a specialized, geographically defined hospital unit that combines acute stroke care and stroke rehabilitation. It accepts patients with acute stroke and also provides them with rehabilitation services all in one place, usually for up to several weeks. Both the rehabilitation unit model and the comprehensive unit model offer prolonged periods of rehabilitation (Langhorne, 2020).

**Alternate stroke care delivery models:** Many models of acute stroke care exist across Canada. Although many organizations do not have an official administrative designation as an acute stroke centre, they meet most or all of the stroke unit criteria listed as core elements below, and should be recognized as attempting to provide optimal, evidence-based stroke care despite administrative and structural resource challenges. These models are sometimes referred to as clustered acute stroke care, or purposeful grouping of patients with stroke.

### Core Elements of Comprehensive Stroke and Neurovascular Care

(Adapted from the Stroke Unit Trialists Collaboration, 2020)

Efforts should be made to provide all the elements of stroke unit care or have processes in place to transfer patients to the closest acute or comprehensive stroke unit to meet their care needs.

a. **Ensures the person with stroke and their family and informal caregivers are at the centre of all stroke care planning and delivery**.
b. Has processes and mechanisms to prioritize access to stroke unit beds for patients with acute stroke within 24 hours of hospital arrival or in-hospital stroke (when medically appropriate, in consultation with other care team members).
c. Accepts patients with acute stroke for comprehensive stroke management within hours of the patient's arrival at hospital.
d. Has established protocols and processes of care in place to implement as many elements as possible to achieve optimal stroke care delivery within the geographic location, hospital volumes and resource availability (human, equipment, funding).
e. Provides advanced diagnostic capability, specialized care, and close monitoring for patients with ischemic stroke, intracerebral hemorrhage, and TIA. Care may be expanded in some institutions to include patients with subarachnoid hemorrhage and other neurovascular conditions.
f. Includes a dedicated interdisciplinary stroke team with broad range of expertise, including neurology, nursing, neurosurgery, physiatry, rehabilitation professionals, pharmacists, and others (on-site or rapid access off-site).

g. Has access to 24/7 imaging and interventional neuroradiology expertise.

h. Has access to emergent neurovascular surgery.

i. Has protocols for emergent and acute stroke management in place, and for seamless transitions between stages of care, including prehospital, emergency department, and inpatient care.

j. Has dysphagia screening protocols to assess all patients with stroke without prolonged time delays prior to commencing oral nutrition and oral medications.

k. Has access to post-acute rehabilitation services, including inpatient, outpatient, community-based, and/or early supported discharge therapy.

l. Initiates transition/discharge planning as soon as possible after admission, and anticipates discharge needs to facilitate smooth transitions.

m. Holds daily or bi-weekly patient care rounds with the interdisciplinary stroke team to conduct case reviews and discuss patient management issues, family concerns or needs, and discharge planning (e.g., discharge or transition to the next step in the patient's care, timing, transition requirements).

n. Provides patient and family education that is formal, coordinated, and addresses learning needs and responds to patient and family readiness.

o. Provides palliative and end-of-life care when required and ideally by health professionals with specialized expertise in a palliative approach to care.

p. Ensures ongoing professional development for all staff on stroke knowledge, evidence-based best practices, skill building, and orientation of trainees.

q. Participates in clinical research for stroke care.

r. Routinely collects process and patient-oriented outcome data on all patients with stroke, and regularly reviews data to inform quality improvement and address gaps in service delivery.