

## Acute Stroke Management Definitions

6<sup>th</sup> Edition  
2018 Update  
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**Acute Stroke:** An episode of symptomatic neurological dysfunction caused by focal brain, retinal or spinal cord ischemia or hemorrhage with evidence of acute infarction or hemorrhage on imaging (MR, CT, retinal photomicrographs), and regardless of symptomatic duration.

**Transient Ischemic Attack (TIA):** A brief episode of neurological dysfunction caused by focal brain, spinal cord or retinal ischemia, with clinical symptoms and without imaging evidence of acute infarction. Transient ischemic attack and minor stroke are the mildest form of acute ischemic stroke in a continuum that cannot be differentiated by symptom duration alone, but the former typically resolves within one hour.

**Prehospital and Emergency Department stroke care** refers to the key interventions involved in the assessment, diagnosis, stabilization and treatment in the first hours after stroke onset. This represents all pre-hospital and initial emergency care for TIA, ischemic stroke, intracerebral hemorrhage, subarachnoid hemorrhage and acute venous sinus thrombosis. This stage involves rapid triaging of patients based on stroke acuity and brain imaging. Treatments may include acute intravenous thrombolysis or acute endovascular interventions for ischemic stroke, emergency neurosurgical procedures, and same-day TIA diagnostic and risk stratification evaluation.

The principal aim of this phase of care is to diagnose the stroke type, and to coordinate and execute an individualized treatment plan as rapidly as possible.

Prehospital and Emergency care is time-sensitive by nature, minutes for disabling stroke and hours for TIA, but specific interventions are associated with their own individual treatment windows. Broadly speaking, the "hyperacute" time window refers to care offered in the first 24 hours after an acute stroke (ischemic and hemorrhagic) and the first 48 hours after a transient ischemic attack.

**Acute stroke care** refers to the key interventions involved in the assessment, treatment or management, and early recovery in the first days after stroke onset. This will represent all of the initial diagnostic procedures undertaken to identify the nature and mechanism of stroke, interdisciplinary care to prevent complications and promote early recovery, institution of an individualized secondary prevention plan, and engagement with the stroke survivor and family to assess and plan for transition to the next level of care (including a comprehensive assessment of rehabilitation needs). New models of acute ambulatory care such as rapid assessment TIA and minor stroke clinics or day-units are also starting to emerge.

The principal aims of this phase of care are to identify the nature and mechanism of stroke, prevent further stroke complications, promote early recovery, and (in the case of severest strokes) provide palliation or end-of-life care.

Broadly speaking "acute care" refers to the first days to weeks of inpatient treatment with stroke survivors transitioning from this level of care to either inpatient rehabilitation, community based rehabilitation services, home (with or without support services), continuing care, or palliative care. This acute phase of care is usually considered to have ended either at the time of acute stroke unit discharge or by 30 days of hospital admission.

An **advanced care plan** is defined as written communication by a competent individual imparting their preferences regarding potential future healthcare decisions. These plans are to be referred to in the event of future incapacity of said individual.

An advance care plan can involve two key factors: “Instructional Directives” and “Proxy Directives”. According to the Health Law Institute<sup>1</sup>:

“Instructional directives state what (or how) health care decisions are to be made when you are unable to make these decisions yourself. This type of directive may set out specific instructions or it may set out general principles to be followed for making your health care decisions. Instructional advance directives are also known as ‘living wills’. Proxy directives specify who you want to make decisions for you when you are no longer able to make the decisions yourself” (Health Law Institute, 2018). This designation is also known as ‘power of attorney’ or ‘substitute decision maker’.

Health Law Institute, Dalhousie University. *End of Life Law and Policy in Canada: Advance Directives* [Internet]. 2018. Available from: [http://eol.law.dal.ca/?page\\_id=231](http://eol.law.dal.ca/?page_id=231)

**Palliative care** is an approach that focuses on comfort and quality of life for those affected by life-limiting illness, such as large hemispheric strokes, and severe hemorrhagic stroke. It aims to prevent and relieve physical, social, psychological, or spiritual suffering of stroke patients, their families and informal caregivers. Palliative care can complement life-prolonging or disease-modifying therapies post-stroke and need not be reserved for those whose death is imminent.

A **palliative approach to care** refers to palliative care that is provided by non-palliative care specialists i.e. the basic symptom management and basic psychosocial care that all clinicians provide to patients and their families.

**End-of-life care** is part of the palliative approach and is the management and treatment of dying patients, as well as their families and informal caregivers. The end-of-life period often involves a period of change (e.g. worsening functional status) rather than an acute event.

**Goals of Care for Palliative Care:** In the event of a potentially poor prognosis, the medical team may initiate a ‘goals of care’ discussion with the individual and/or their substitute decision maker. This conversation would have the objective of establishing consensus on a direction of care and would incorporate the individual’s previous wishes/advanced care planning as well as their current status and needs. Some potential topics of discussion may be: preferred location of palliation, the cessation of certain medical interventions, comfort care options and preferences in the event of immanent death (e.g. resuscitation). The intent is to then have a written communication for the healthcare team to assist in the provision of individualized palliative care in a timely manner. Health status can change over time and this written plan should be reviewed in conjunction with shifts in status or changes in the care team. The goals of care can be amended or revised at any time by the individual and/or substitute decision maker.