

TORONTO STROKE FLOW INITIATIVE - Outpatient Rehabilitation Best Practice Recommendations Guide (updated July 26, 2013)

Objective: To enhance system-wide performance and outcomes for persons with stroke in Toronto.

Goals:

- Timely access to geographically located acute stroke unit care with a dedicated interprofessional team
- Earlier access to high intensity rehab
- Increase access to high intensity rehab for severe strokes
- Enhance outpatient rehab programs with timely access from acute care post mild stroke
- Improved functional outcomes

Desired State:

The literature stipulates that organized acute stroke care¹ and early access to intense rehabilitation improves patient outcomes. The desired state is described as:

- All acute stroke patients admitted to a stroke unit
- 40% of total stroke patients discharged from acute care to inpatient rehab with the admission to rehab day 5 for ischemic stroke and day 7 for hemorrhagic strokes
- System wide admissions to inpatient rehab by stroke severity (9% mild, 49.5% moderate, 41.5% severe at admission) and length of stay targets based on rehab patient group (RPG)
- 3 hours minimum therapy time/patient/day in rehab with direct to indirect staff to therapy ratio 80:20
- Minimum 10 rehab beds per organization
- 7 day/week admissions and therapy/activity
- Patient transfers (inter and intra organizational) are minimised, if at all, once admitted
- Target admission to outpatient from acute within 2 weeks post stroke
- Referral as necessary to CCAC for early supported discharge from acute care

Purpose of this document:

The Toronto Stroke Networks have developed this document to assist organizations with *prioritization and implementation* of best practice to create a common standard of care across the system. This includes a summary of the key best practices, administrative and clinical processes required to meet these recommendations, and core and suggested process indicators. As the Quality-Based Procedures: Clinical Handbook for Stroke (HQO & MOHLTC, released January 2013) provides required best practice care procedures for all admitted acute stroke patients as part of the new funding model under the Health Services Funding Reform initiative, this best practice guide has been updated to reflect these procedures.

To support successful uptake of best practice, a knowledge translation (KT) strategy has been developed to achieve:

- Professional development to enhance practice utilizing a combination of evidence-based KT education strategies
- Inter-professional collaborative team development for better patient outcomes
- Evaluation framework for monitoring and reporting
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Best Practice Recommendations	Administrative Processes	Clinical Processes/Activities	Required Elements to Meet Recommendations (Timelines ²)	Core ³ and Suggested Process Indicators
OUTPATIENT REHAB PROGRAM				
<p>After leaving hospital, persons with stroke should have access to specialized stroke care and rehabilitation services.⁴</p>	<ul style="list-style-type: none"> • A mechanism should be in place to allow for persons with stroke to be admitted to outpatient rehab from acute care or inpatient rehab. • When persons with stroke have been accepted to outpatient services, the wait time from referral to start of appropriate outpatient rehabilitation services should not be more than 5 days.⁵ • Outpatient therapy should be at least 2 hours of direct therapy, occurring 2-3 times per week for 8-12 weeks.^{6,7} 	<p>Outpatient and community-based stroke rehabilitation model of care should include:</p> <ul style="list-style-type: none"> ○ A case coordination approach ○ An emphasis on person/family-centred practice ○ Focus on person-centred re-engagement in and attainment of their desired life activities and roles ○ Enhancement of quality of life⁸ 	<ul style="list-style-type: none"> • Protocols and strategies to prevent complications and address risk factors for stroke.⁹ (year 1) • Evidence-based care pathways/algorithms to guide specialized stroke care and rehabilitation services. (year 2) 	<ul style="list-style-type: none"> • Time to start of outpatient services post referral receipt (start of therapy date minus referral date). Start of therapy is defined as the date of the first therapy session. An initial assessment of eligibility is not considered the first therapy session. • Stroke volumes to outpatient clinics by source (acute, inpatient rehab, and community – all sources). • Frequency and duration of services provided by healthcare providers in outpatients.
STAFFING MIX				
<p>Access to healthcare providers with experience in outpatient and community rehabilitation may include: physical therapist (PT), occupational therapist (OT), speech-language pathologist (S-LP), social work (SW), dietician, nursing staff, case manager and consultation with physicians (primary care or specialists). Additional healthcare providers may include a pharmacist and neuropsychologist.</p>	<ul style="list-style-type: none"> • Persons with stroke should receive their rehabilitation from an interprofessional team experienced in stroke care. • In creating models of service delivery, admission policies should consider that greater than 70 % of persons with stroke require rehabilitation by at least one rehab profession – PT, OT, or S-LP.¹⁰ 	<ul style="list-style-type: none"> • In their clinical decision-making and provision of treatment, healthcare providers should rely on their expertise to balance evidence-based research with the person with stroke's clinical state, circumstances, and preferences.¹¹ • The interprofessional team must assess and treat persons with stroke on a regular basis to develop/maintain clinical skills to address problems with visual perception, communication, mobility, cognition and/or other impairments.¹² 	<ul style="list-style-type: none"> • Staffing ratios that support the amount of therapy recommended (2 hours, 2-3 times per week for 8-12 weeks). (year 1) • Communication processes for the interprofessional team (e.g., team rounds, transition planning, etc.). (year 1) 	<p>Referrals by profession (OT, PT, S-LP, and SW).</p> <p>Frequency and duration of services provided, by profession, in outpatients.</p>

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ASSESSMENT AND MANAGEMENT				
<p>The interprofessional rehabilitation team should assess the person with stroke and develop a comprehensive individualized rehabilitation plan which reflects the severity of the stroke and needs and goals of the persons with stroke.¹³</p>	<ul style="list-style-type: none"> • Ensure staff have access to specialized training, including education on standardized assessment and screening tools. 	<ul style="list-style-type: none"> • A focused interprofessional assessment should be provided to all persons with stroke to determine severity of stroke, breadth of deficits and rehab intensity required, safety and risk, physical readiness, ability to learn and participate, and transition planning.¹⁴ • Healthcare providers should use standardized, valid assessment tools to evaluate stroke-related impairments, functional status,¹⁵ risk for falls, pain, swallowing, behavioural issues, cognitive function,¹⁶ and depression.¹⁷ • Persons with stroke should be assessed for vascular disease risk factors and lifestyle management issues (diet, sodium intake, exercise, weight, smoking, alcohol intake, etc).¹⁸ • Persons with stroke who have challenges with mobility, aphasia or dysphagia should be provided with: <ul style="list-style-type: none"> ○ Aerobic exercise ○ Cardiovascular fitness programs ○ Supportive conversation techniques ○ Dysphagia follow-up (swallowing therapy) ○ Falls prevention and management¹⁹ • Therapy should include repetitive and intense use of novel tasks that challenge the involved limb during functional tasks and activities.²⁰ • The team should consistently promote the practice of skills gained in therapy into the person with stroke's daily routine.²¹ • Assessment and management should integrate the SCORE recommendations for upper and lower limb management 	<ul style="list-style-type: none"> • Interprofessional team to maintain credentialing and/or competency on standardized assessments (Appendix B). (year 1) • Interprofessional team to collaborate during assessments, management, and discharge planning of persons with stroke. (year 1) • Provision of evidence-based interventions that include the prevention of stroke risk factors, depression, and falls. (year 1) • Early discharge planning, including home assessment and caregiver training, to promote smooth transition from outpatient rehabilitation back to the community. (year 1) 	<p>Change in functional status scores using a standardized measurement tool, for persons with stroke who are engaged in community rehabilitation programs.</p>

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		following stroke (Appendix A). ²²		
TRANSITIONS				
<p>To support transitions between care environments, persons with stroke and their families/caregivers should be provided with information, education, training, emotional support and community services specific to the transition they are undergoing.²³</p>	<p>Healthcare providers should take responsibility for person-centred continuity of care as the persons with stroke (and their families/caregivers) transition to the next point of care.</p> <p>This can be achieved through:</p> <ul style="list-style-type: none"> • Better understanding the system as a whole (e.g. Transition Improvement for Continuity of Care (TICC)²⁴) • Strengthening relationships with other areas of the care continuum. • Creating infrastructure to communicate with other healthcare providers (e.g., TICC My Stroke Passport). • Ensuring support for persons with stroke and their families/caregivers (e.g. TICC Peers Fostering Hope). 	<p>Support for persons with stroke and their families/caregivers during transitions should include²⁵:</p> <ul style="list-style-type: none"> • Written discharge instructions • Access to a contact person in the hospital or community (designated case manager or system navigator) for post-discharge queries • Access to and advice from health and social service organizations (e.g. through single points of access to all organizations) • Referrals to community agencies such as peer support groups or peer visiting programs (e.g., TICC Peers Fostering Hope) 	<ul style="list-style-type: none"> • Established process for receiving patient-related information from inpatient rehab or acute care to appropriate community providers (e.g. primary care, secondary prevention clinics) in a culturally appropriate format.²⁶ (year 1) • Patient-mediated communication tool (TICC My Stroke Passport) (year 3-5) • Healthcare provider framework to support coordinated clinical handover and continuity of care planning (TICC Knowing Each Other's Work). (year 3-5) • A healthcare provider resource to facilitate conversations between healthcare providers and persons with stroke (e.g. CISCCoR Trigger tool).²⁷ (year 3-5) • Conversation/self-management resources established for persons with stroke and their families/caregivers (e.g. CR Cue to Action Trigger Tool).²⁸ (year 3-5) 	<ul style="list-style-type: none"> • Communication mechanism in place to receive patient-related information from acute and inpatient rehab. • Communication mechanism in place to share relevant information with appropriate community providers. • Tool in place to support communication and self management (e.g. proportion of persons with stroke that have utilized the TICC My Stroke Passport).
<p>Discharge planning Discharge planning should be initiated soon after admission to ensure ongoing support in the form of community programs, respite care and educational opportunities available to</p>	<ul style="list-style-type: none"> • A process should be established to ensure that persons with stroke and their families/caregivers are involved in the development of their care plan, which includes discharge planning.³⁰ • Persons with stroke should have regular and ongoing follow-up to assess recovery, prevent 	<ul style="list-style-type: none"> • Discharge planning activities should include interprofessional team meetings with persons with stroke and families/caregivers, discharge and transition care plans, a pre-discharge needs assessment, caregiver training, 	<ul style="list-style-type: none"> • Protocols and pathways for stroke care that address discharge planning activities. (year 1) • Strong relationships among healthcare providers that facilitates 	

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<p>support caregivers who are balancing personal needs with caregiving responsibilities²⁹.</p>	<p>deterioration, maximize functional and psychosocial outcomes, and improve quality of life³¹ including linkages to primary care and other appropriate resources.</p> <ul style="list-style-type: none"> • Mechanisms should be in place to ensure appropriate re-access to rehabilitation. 	<p>post discharge follow-up plans, and review of psychosocial needs.³²</p> <ul style="list-style-type: none"> • Mechanisms for communication with primary care providers to address stroke risk factors, ongoing rehabilitation needs, and to continue treatment of co-morbidities and sequelae of stroke.³³ • Process to re-access appropriate rehabilitation to address declining physical activity or activities of daily living at six months or later after stroke.³⁴ • Interprofessional teams should facilitate linkages to services in the community for persons with stroke and their families/caregivers.³⁵ 	<p>safe and timely transitions. (year 3-5)</p> <ul style="list-style-type: none"> • Access to self-management, caregiver training and support services that are appropriate to ensure a smooth transition. (year 3-5) • Written discharge instructions for persons with stroke, their families/caregivers and their primary care providers should include: action plans, follow-up care and goals, significant interventions, prevention of complications, medications at discharge, plans for follow-up, functional abilities at time of transfer, and the delineation of respective roles and responsibilities of caregivers.³⁶ 	
EDUCATION FOR PERSONS WITH STROKE AND THEIR FAMILIES/CAREGIVERS				
<p>Education should include information sharing, teaching self-management skills and caregiver training.³⁷</p>	<ul style="list-style-type: none"> • Specific team members should be designated to provide and document education³⁸. • A process in place to coordinate education for persons with stroke and their families/caregivers, which may include a designated lead. 	<ul style="list-style-type: none"> • Education should be provided to persons with stroke and their families/caregivers and should be specific to the phase of recovery and appropriate to their readiness to receive education and needs. Education should cover all aspects of care and recovery.³⁹ • Education should be interactive, timely, up-to-date, provided in a variety of languages and formats (written, oral, aphasia friendly, group counseling approach), and specific to the needs of persons with stroke and their families/caregivers.⁴⁰ 	<ul style="list-style-type: none"> • Education that is specific, relevant and meaningful to support achievement of person-centred goals. • Consideration should be given to all domains of community re-engagement (health management, mobility, environment, communication, life roles, caregiver support, social network and financial).⁴¹ (year 3-5) 	<ul style="list-style-type: none"> • Proportion of persons with stroke with documentation of education (core). • Patient and family satisfaction (NRC-Picker).

¹ Stroke Unit Trialists' Collaboration. 2007. 'Collaborative systematic review of the randomised trials of organised inpatient (stroke unit) care after stroke'. Cochrane Database Systematic Review.; Langhorne P, Dey P, Woodman M, Kalra L, Wood-Dauphinee S, Patel N Hamrin E. 2005. "Is stroke unit care portable? A systematic review of the clinical trials". *Age Ageing*. Jul;34(4):324-30.

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² Timelines relate to implementation of required elements to meet the recommendations.

³ Canadian Stroke Strategy, Canadian Best Practice Recommendations for Stroke Care Update 2010.

⁴ Ibid. Recommendation 5.6.

⁵ Ontario Stroke System, Consensus Panel on the Stroke Rehabilitation System "Time is Function", Standard 18. HSFO 2007

⁶ A Blueprint for Transforming Stroke Rehabilitation Care in Canada: The Case for Change, Robert W Teasell,, Norine C. Foley, Katherine L Salter, Jeffrey W Jutai, Arch Phys Med Rehabil, Vol 89, March 2008

⁷ Ontario Stroke System Consensus Panel on the Stroke Rehabilitation System "Time is Function", Standard 7. HSFO 2007

⁸ Canadian Stroke Strategy. Canadian Best Practice Recommendations for Stroke Care Update 2010. Recommendation 5.6.

⁹ Ibid. Recommendation 5.2.

¹⁰ Canadian Stroke Strategy. Canadian Best Practice Recommendations for Stroke Care Update 2010. Recommendation 5.6.

¹¹ Evidence-Based Medicine 2002; 7:36-38.

¹² Stroke Rehab Definitions Framework, GTA Rehab Network, 2008.

¹³ Canadian Stroke Strategy. Canadian Best Practice Recommendations for Stroke Care Update 2010. Recommendation 5.2.2.

¹⁴ Ibid. Recommendation 5.1.

¹⁵ Ibid. Recommendation 5.1.

¹⁶ Ibid. Recommendation 5.6.

¹⁷ Ibid. Recommendation 6.6.

¹⁸ Canadian Stroke Strategy. Canadian Best Practice Recommendations for Stroke Care Update 2010. Recommendation 2.1.

¹⁹ Ibid. Recommendation 5.6.

²⁰ Ibid. Recommendation 5.3.

²¹ Ibid. Recommendation 5.3.

²² Ibid. Recommendations 5.4.1 – 5.5.3

²³ Canadian Stroke Strategy. Canadian Best Practice Recommendations for Stroke Care Update 2010. Recommendation 6.1.

²⁴ Transition Improvement for Continuity of Care (TICC) Initiative, Toronto Stroke Networks. TICC consists of 3 components: Knowing Each Other's Work, My Stroke Passport, and Peers Fostering Hope.

²⁵ Canadian Stroke Strategy. Canadian Best Practice Recommendations for Stroke Care Update 2010. Recommendation 6.1.

²⁶ Adapted from Canadian Stroke Strategy. Canadian Best Practice Recommendations for Stroke Care Update 2010. Recommendation 6.3.

²⁷ CISCCoR Trigger Tool, 2010, developed by South East Toronto Stroke Network and Toronto West Stroke Network.

²⁸ Community Re-engagement Cue to Action Trigger Tool, developed by South East Toronto Stroke Network and Toronto West Stroke Network.

²⁹ Adapted from Canadian Stroke Strategy. Canadian Best Practice Recommendations for Stroke Care Update 2010. Recommendations 6.6.

³⁰ Canadian Stroke Strategy. Canadian Best Practice Recommendations for Stroke Care Update 2010. Recommendations 6.4.

³¹ Ibid. Recommendations 6.6.

³² Ibid. Recommendations 6.4.

³³ Ibid. Recommendations 6.6.

³⁴ Canadian Stroke Strategy. Canadian Best Practice Recommendations for Stroke Care Update 2010. Recommendation 6.6.

³⁵ Ontario Stroke System Consensus Panel on the Stroke Rehabilitation System "Time is Function", Standard 17. HSFO 2007

³⁶ Canadian Stroke Strategy. Canadian Best Practice Recommendations for Stroke Care Update 2010. Recommendation 6.3.

³⁷ Ibid. Recommendation 6.2.

³⁸ Ibid. Recommendation 6.2.

³⁹ Ibid. Recommendation 6.2.

⁴⁰ Ibid. Recommendation 6.2.

⁴¹ Please refer to CISCCoR Trigger Tool, 2010, developed by South East Toronto Stroke Network and Toronto West Stroke Network.