Core Elements – Ontario Stroke Prevention Clinics

Service Scope:

The goal of outpatient management of TIA and non-disabling stroke is rapid assessment and management to reduce the risk of a recurrent, possibly more serious, event. In the province of Ontario, this is achieved by Stroke Prevention Clinics or the equivalent.

Stroke Prevention Clinics are defined by a common set of core elements based on the Canadian Stroke Best Practice Recommendations (CSBPR). These core elements are to be reviewed and modified every 2 years to coincide with the release of CSBPR for secondary prevention.

Core Elements:

1. **Access to Stroke Prevention Clinics:**
    - The SPC is identified and acknowledged within the local, regional and provincial health system as providing designated stroke prevention services.
    - The timing of initial assessment in the SPC is based on current recommended timeframes*. Access to the SPC will be expedited based on risk stratification.

2. **Established System for Referral:**
    - SPCs will have an established referral system in place which includes the following:
        i. Standard referral form
        ii. Clear process and care pathway for referrals from various sources: ED, primary care, specialists and inpatient units
        iii. Provision of education and communication to referring providers (including emergency department physicians and primary care providers) regarding:
            - The latest emerging CSBPR for stroke prevention*
            - Their role and the role of the SPC in the care and management of TIA and minor non-disabling stroke patients

3. **Access to Stroke Specialists:**
    - Patients referred to the SPC will receive consultation, care coordination and education by physician and nurse stroke specialists.
    - The SPC will have access to an inter-professional group of internal and external stroke experts including neurology, internal medicine, vascular surgery, rehabilitation medicine, cardiology, neuroradiology, geriatrics, neuropsychiatry, neuropsychology, nursing, rehabilitation therapy (Physiotherapy, Occupational Therapy, Speech Therapy), social work, dietetics, pharmacy, community liaisons/navigator, and administrative support.

*Refer to CSBPR for current recommended timeframes (http://www.strokebestpractices.ca/)

4. **Access to Telemedicine:**
    - When required, the SPC uses telemedicine technology to increase access to services for patients living in rural and remote settings without local access to stroke specialists.

5. **Access to Diagnostic Imaging:**
    - The SPC has timely access to brain and vascular imaging (CT/MRI, CTA, carotid ultrasound), cardiac diagnostics (ECG, Holter, prolonged cardiac monitoring, ECHO) and laboratory services for their patients.
        i. The SPC ensures rapid access to imaging for patients who present to the emergency department based on recommended target times*.
        ii. For patients referred to the stroke prevention clinic without completed imaging, the SPC ensures access to testing based on recommended target times* when indicated
    - The SPC ensures agreements are in place for timely access to internal diagnostic services for all SPC patients*
    - If diagnostic services are not available on site, agreements are in place for timely access to diagnostic services within the region, or next closest facility providing such services within target wait times*

6. **Diagnosis & Determination of Etiology:**
    - The SPC physician is responsible for the diagnosis of stroke type (TIA, ischemic, hemorrhagic) or other and for the determination of underlying etiology
        i. **Ischemic**:
            - large-artery atherosclerosis
            - cardio-embolism
            - small-vessel occlusion
            - stroke of other determined etiology
            - stroke of undetermined etiology
        ii. **Hemorrhagic:**
            - Hypertension
            - Amyloid Angiopathy
            - Other
    - The SPC physician is responsible for the communication of the above to care providers and patient.

7. **Vascular Risk Factor Assessment, Screening & Management:**
    - The SPC assesses, screens and initiates management of vascular risk factors in accordance with the current CSBPR*:
        i. Atrial fibrillation
        ii. Blood pressure
        iii. Lipids

*Refer to CSBPR for current recommended timeframes (http://www.strokebestpractices.ca/)

iv. Diabetes
v. Sleep apnea
vi. Lifestyle:
    - Tobacco use
    - Diet
    - Sodium
    - Exercise
    - Weight
    - Alcohol consumption
    - Birth control/hormone replacement therapy
    - Recreational drug use
    - Medication adherence

- The SPC has a responsibility to initiate timely linkages and referrals to internal and external behavioral management programs and services to address risk factors and patient/caregiver needs, including referrals to tobacco cessation programs, diabetes education centre, outpatient dietitian, etc. as required*.
- The SPC has a responsibility to initiate medical management strategies for secondary stroke prevention in line with current CSBPR*.

8. **Carotid Stenosis Management:**
    - The SPC expedites assessment and facilitates rapid access to interventional and surgical services for patients with symptomatic carotid stenosis. Clear pathways are in place to expedite interventions in line with current CSBPR*.

9. **Patient and Family Education:**
    - The SPC will provide:
        i. Personalized information to support patient/family transition after their initial SPC appointment including diagnosis, medication changes, tests and referrals, follow-up plan, etc.
        ii. SPC assesses patient and family knowledge, self-management capability, and learning needs for skills and coping mechanisms (for example, using HSF Post-Stroke Checklist)
        iii. Multi-modal education on stroke, TIA, when to seek medical attention, risk factors, post-stroke depression, medications, community resources, etc.
        iv. Aphasia friendly material and multilingual material
        v. Access to staff with training in supported conversation
        vi. Translation services available for patients during SPC visits if required

10. **SPC Staff Education:**
    - SPC Staff have the responsibility to obtain appropriate training and education to remain current with updates to the CSBPR and new developments in their specialized discipline

*Refer to CSBPR for current recommended timeframes (http://www.strokebestpractices.ca/)

11. **Rehabilitation and Community re-integration:**
    - The SPC has the responsibility to ensure timely and appropriate referral to in-home and outpatient therapy to address specific rehabilitation needs as required.
    - The SPC physician and/or Nurse Practitioner has the responsibility to review each patient's driving status (e.g. driver/non-driver, holds drivers' license) at the SPC appointment. National guidelines and reporting requirements are to be followed when indicated. This includes;
        i. Advising patients not to drive
        ii. Physician reporting to the Ministry of Transportation
    - The SPC has the responsibility to initiate timely and appropriate referrals for driving evaluation (e.g. to occupational therapy) for patients with stroke deficits that may affect driving safety when the patient has a goal of return to driving.

12. **Cognition, Depression and Post-Stroke Fatigue Assessment, Screening & Management:**
    - The SPC assesses screens and establishes a plan to manage cognition, depression and post-stroke fatigue in accordance with the current CSBPR.
    - The SPC facilitates timely linkages and referrals to internal and/or external programs and services to address cognition, depression and post-stroke fatigue as required*.

13. **Quality Assurance:**
    - The SPC has mechanisms in place to monitor and measure outcomes for stroke prevention and engages in ongoing quality assurance and process improvement.

14. **Communication to External Care Providers:**
    - The SPC has the responsibility to ensure that the plan of care for ongoing management is communicated to the primary care provider, referring physician and other care providers as appropriate.

15. **Follow-Up Care:**
    - The SPC has the responsibility to ensure that follow-up care is in place after the initial SPC visit. This may occur in the SPC, primary care or other care settings as appropriate.

*Refer to CSBPR for current recommended timeframes (http://www.strokebestpractices.ca/)