An Introduction to Post-Acute Stroke QBP Recommendations on Outpatient and Community Rehabilitation

June 5 2015
Pre-presentation Instructions

• Please keep microphone on mute unless you are asking a question
• The presentation and Executive Summary is available at www.ontariostrokenetwork.ca
• There will be a question and answer period at the end of the presentation
• Please email info@ontariostrokenetwork.ca
Speaker:

- Dr. Mark Bayley, OSN Evaluation Champion and Chair of Stroke Evaluation and Quality Committee, Co-Chair HQO Phase Two Expert Panel

Objectives:

1. To provide a brief overview of Quality Based Procedures
2. To provide an overview of the recommended practices for stroke QBP’s for community and outpatients.
3. To provide an opportunity for discussion & questions
Acknowledgement

• Health Quality Ontario’s Clinical Handbook for Stroke: Acute and Post-Acute was developed by Health Quality Ontario on behalf of the Ministry of Health and Long Term Care with the Stroke Episode of Care Provincial Phase 2 Expert Advisory Panel

• The content of this presentation follows content of the Quality Based Procedures for Stroke: Acute and Post Acute Clinical Handbook

• South West Ontario Stroke Network for their contribution to this presentation
<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Mark Bayley</td>
<td>Physiatrist</td>
<td>University Health Network</td>
</tr>
<tr>
<td>Christina O’Callaghan</td>
<td>ED</td>
<td>Ontario Stroke Network</td>
</tr>
<tr>
<td>Dr Leanne Casaubon</td>
<td>Stroke Neurologist</td>
<td>University Health Network-Toronto Western</td>
</tr>
<tr>
<td>Dr Adam Steacie</td>
<td>Family Physician</td>
<td>Ontario Medical Association</td>
</tr>
<tr>
<td>Dr Robert Teasell</td>
<td>Physiatrist</td>
<td>St Joseph’s Health Care</td>
</tr>
<tr>
<td>Connie McCallum</td>
<td>Nurse Practitioner</td>
<td>Stroke Prevention Clinic, Niagara Health System</td>
</tr>
<tr>
<td>Trixie Williams</td>
<td>Lead, Vascular Health</td>
<td>Central East LHIN</td>
</tr>
<tr>
<td>Armi Armesto</td>
<td>Clinical Nurse Specialist</td>
<td>Stroke Prevention Clinic, Sunnybrook Health Sciences</td>
</tr>
<tr>
<td>Dr Dan Brouillard</td>
<td>Stroke Survivor</td>
<td>Kingston</td>
</tr>
<tr>
<td>Nadia Hladin</td>
<td>Manager Professional Practice Rehabilitation</td>
<td>VHA Home Healthcare</td>
</tr>
<tr>
<td>Karen Sutherland</td>
<td>Service Lead</td>
<td>Specialized Community Stroke Rehab Team, St Joseph’s Health Care, Parkwood</td>
</tr>
<tr>
<td>David Ure</td>
<td>Coordinator</td>
<td>Community Stroke Rehab Team</td>
</tr>
<tr>
<td>Sarah McEwen</td>
<td>Research Scientist</td>
<td>St John’s Rehab</td>
</tr>
<tr>
<td>Stefan Pagliuso</td>
<td>Regional Stroke Rehabilitation, Community &amp; LTC Coordinator</td>
<td>Central South Stroke Network</td>
</tr>
<tr>
<td>Jim Lumsden</td>
<td>Regional Program Director</td>
<td>Champlain Regional Stroke Program</td>
</tr>
<tr>
<td>Paula Gilmore</td>
<td>Regional Program Director</td>
<td>South West Ontario Stroke Network</td>
</tr>
<tr>
<td>Joan Southam</td>
<td>Home Health Senior Manager/Project Specialist</td>
<td>CBI-LHIN</td>
</tr>
<tr>
<td>Matthew Meyer</td>
<td>Project Coordinator</td>
<td>Ontario Stroke Network</td>
</tr>
<tr>
<td>Nicole Martyn-Cobianco</td>
<td>Program Head Human Services</td>
<td>University of Guelph-Humber</td>
</tr>
<tr>
<td>Holly Sloan</td>
<td>Speech Language Pathologist</td>
<td>Trillium Health Partners</td>
</tr>
<tr>
<td>Rebecca Fleck</td>
<td>Regional Education Coordinator</td>
<td>Central South Stroke Network</td>
</tr>
</tbody>
</table>
About the OSN

• The OSN provides provincial leadership and planning for the Ontario’s 11 Regional Stroke Networks (Ontario Stroke System) by:
  o *establishing province-wide goals, strategies & programs to implement BP’s across the care continuum*;
  o *leading or facilitating provincial initiatives & aligning regional/LHIN plans*
  o *evaluating performance, benchmarking & reporting on provincial, LHIN & Regional Stroke Network progress*; &,
  o *Managing the KT program*. 
Regional Stroke Networks

• Ontario’s 11 RSN’s support the 14 LHINs
• Each stroke network is a collaborative partnership of health care organizations and providers that:
  o *span the care continuum from prevention to community re-engagement.*
  o *develop and implement strategies to achieve equitable access and improved outcomes for stroke survivors and their families through the integration of stroke best practices across the care continuum*
  o *Will support the LHIN implementation of QBP’s*
The path forward: The Excellent Care for All Strategy is anchored by principles reflecting high quality as the primary driver to system solutions...

Value = Quality/Cost
The successful transition from the current, ‘provider-centered’ funding model towards a ‘patient-centered model’ will be catalyzed by a number of key enablers and field supports.

Current: Based on a lump sum, outdated historical funding.
- Fragmented system planning
- Funding not linked to outcomes
- Does not recognize efficiency, standardization and adoption of best practices
- Maintains sector specific silos

How do we get there?
- Strong Clinical Engagement
- Current Agency Infrastructure
- System Capacity Building for Change and Improvement
- Knowledge to Action Toolkits
- Meaningful Performance Evaluation Feedback

Future: Transparent, evidence-based to better reflect population needs.
- Supports system service capacity planning
- Supports quality improvement
- Encourages provider adoption of best practice through linking funding to activity and patient outcomes
- Ontarians will get the right care, at the right place and at the right time

Provider - Centric

Patient - Centered
The variations in patient care perpetuated by the historical funding approach, warrant the move towards a system where ‘money follows the patient’

HBAM is a ‘made in Ontario’ funding model that distributes allocations to organizations in accordance with population needs and their ability to provide cost-effective care.

Quality Based Procedures (QBPs) are clusters of patients with clinically related diagnoses or treatments that have been identified by an evidence-based framework as providing opportunity for process improvements, clinical re-design, improved patient outcomes, enhanced patient experience and potential cost savings.

Patient-Based Funding is based on clinical clusters that reflect an individual’s disease, diagnosis, treatment and acuity.

Patient-Based Funding will include HBAM and Quality-Based Procedures.
Key Steps of the Process

1. Define patient cohorts and grouping approach
   - Disaggregate broad patient population (e.g. stroke) into hospital-based patient groupings with similar clinical and utilization characteristics
   - Recommend factors to consider for acuity / severity adjustment (e.g. age, comorbidities, social factors)

2. Develop a pathway model for the episode of care
   - What is the index event commencing the episode?
   - What are the key phases, branches and decision points within the patient episode of care?
   - What proportion of patients proceed down each branch of the pathway?

3. Recommend evidence-based practice throughout the episode
   - What are the effective practices that should take place within each component of the episode?
   - What is the strength of the evidence supporting each of these practices?
   - How often should these practices should be delivered?
Key Principles for Handbook

• The scope of the handbook includes both hospital care and post-acute, community care
• Recommended practices reflect best patient care possible, regardless of cost or barriers to access
• Recommended practices, supporting evidence, and policy applications will be reviewed and updated at regular intervals
• The integrated handbook does not involve detailed unit costing or pricing
<table>
<thead>
<tr>
<th>TIA or Minor (Nondisabling) Stroke</th>
<th>Stroke</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACUTE EPISODE OF CARE (p.41-52)</strong></td>
<td><strong>ACUTE EPISODE OF CARE (p.86-99)</strong></td>
</tr>
<tr>
<td>Module 1: Early Assessment</td>
<td>Module 1: Early Assessment</td>
</tr>
<tr>
<td>Module 2: Early Treatment</td>
<td>Module 2: Early Treatment of AIS &amp; ICH</td>
</tr>
<tr>
<td>Module 3: Admission to Acute Care</td>
<td>Module 3: Admission to Acute Care</td>
</tr>
<tr>
<td>Module 4: Admission to Inpatient Rehabilitation</td>
<td>3a: Acute IP Treatment</td>
</tr>
<tr>
<td>N/A</td>
<td>3b: Prevention of secondary complications</td>
</tr>
<tr>
<td>Module 5: Secondary Prevention</td>
<td>Module 4: Admission to IP Rehab</td>
</tr>
<tr>
<td>Module 5: Secondary Prevention</td>
<td>Module 5: Secondary Prevention</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POST ACUTE EPISODE OF CARE (p.54-82)</th>
<th>POST ACUTE EPISODE OF CARE (p.101-131)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module 5: Secondary Prevention</td>
<td>Module 5: Secondary Prevention</td>
</tr>
<tr>
<td>Module 6: Predischarge/DC Planning</td>
<td>Module 6: Predischarge/Discharge Planning</td>
</tr>
<tr>
<td>Module 7: Early Supported Discharge N/A</td>
<td>Module 7: Early Supported Discharge</td>
</tr>
<tr>
<td>Module 8: Community Assessment</td>
<td>Module 8: Community Assessment</td>
</tr>
<tr>
<td>Module 9: Community Treatment</td>
<td>Module 9: Community Treatment</td>
</tr>
<tr>
<td>Module 10: Cross-Continuum Processes</td>
<td>Module 10: Cross-Continuum Processes</td>
</tr>
</tbody>
</table>
Flow Chart for the Stroke Patient Cohort Across Care Settings

Emergency Department
- Transient ischemic attack (TIA) or nondisabling stroke
  - TIA: Stable, lower risk
  - TIA: Unstable, higher risk
    - TIA: Stable, higher risk*
    - TIA: Unstable, higher risk

Acute Inpatient
- Stroke
  - Minor (nondisabling) stroke*
    - TIA: Stable, lower risk

Inpatient Rehabilitation
- Ischemic
  - AlphaFIM® ≥ 81
    - RPG 1100
    - RPG 1110
    - RPG 1120
    - RPG 1130
    - RPG 1140
    - RPG 1150
  - AlphaFIM® ≤ 80
    - RPG 1160*

Outpatient / Ambulatory
- Provincial stroke prevention clinic or outpatient clinic with stroke prevention services
- Rapid assessment TIA or minor stroke unit or TIA clinic
- Outpatient or home-based rehabilitation

Legend:
- Included in current QBP model
- Not included in current QBP model; data available
- Not included in current QBP model; data not yet available

* Stable, higher risk TIAS and some patients with minor stroke can be more cost-effectively managed in ambulatory settings, whenever available and clinically appropriate
† RPG 1160 patients can be more cost-effectively managed in outpatient rehabilitation, whenever available and clinically appropriate
QBP & the Stroke Clinical Handbook-ED, Acute Key Messages
Key Messages ED and Acute

- Early assessment and treatment
- Imaging including vascular
- Referral to Secondary Prevention
- Access to thrombolysis
- Telestroke
- Admission to stroke unit:
  - Specialized, geographically defined
  - Interprofessional stroke team
- Completion of AlphaFIM® Day 3
- LOS 5 days
QBP & the Stroke Clinical Handbook – Inpatient Rehabilitation Key Messages
“Time is Function”

• Brain is “primed” to “recover” early post-stroke
• Delays in starting rehab are detrimental to recovery
  (Biernaskie et al., 2004)
  o *Day 5 admission = marked improvement*
  o *Day 14 admission = moderate improvement*
  o *Day 30 admission = no improvement vs. controls*
• A single day delay in starting neuro-rehabilitation affects the functional prognosis of patients at discharge. This delay is also associated with increased rates of institutionalization at discharge. (Neurología. 2012;27:197—201)
Key Messages IP Rehab

- Admission to a stroke rehabilitation unit specialist rehab team
- Procedures should enable admission 7 days/week
- Recommended staffing:
  - PT/OT: 1/6pts /6 inpatient beds
  - SLP: 1:12
- Pts with AlphaFIM® score >80 should be discharged to outpatient rehab
Key Messages

• Stroke pts should receive at least **3 hours of direct** task-specific therapy per day (Level A) at **least 6 days a week** (OSN)

• The FIM tool should be used as the standard assessment tool (OSN)

• Pts with **moderate or severe stroke** who are rehab ready and have rehab goals should be given the opportunity (Level A)
Acute/IP Rehab
Patient Groups

Changes from previous edition
What’s New: Modules 1-3: Acute

• Brain Imaging interpreted immediately by a healthcare professional with expertise in reading CT and/or MRI.

• Patients should have access to a specialized interprofessional team 7 days a week.

Other: A few minor clinical changes.
What’s New: Module 4: IP Rehab

• IP rehabilitation team should consist of:
  o Physiatrists, other physicians with expertise/core training in stroke rehabilitation, occupational therapists, physical therapists, speech-language pathologists, nurses, social workers and dietitians
  o Additional members could include recreation therapists, psychologists, vocational therapists, educational therapists and rehabilitation therapy assistants

• Stroke patients should receive, via an individualized treatment plan, at least 3 hours of direct task-specific therapy per day by the IP stroke team for at least 6 days per week

• All discharged patients should be given secondary prevention
Post-acute Care
Patient Groups

Community/OP Rehab
<table>
<thead>
<tr>
<th>Patient Group</th>
<th>Patient Characteristics/Triage Criteria</th>
<th>Recommended Care Pathway</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Stroke: mild (AlphaFIM® 81–125)</td>
<td>Patients presenting to hospital with acute stroke, with an early AlphaFIM® score of 81–125 recorded within 72 hours of presentation to hospital, or without other considerations (e.g., advanced age, caregiver availability, severe cognitive/perceptual needs, severe aphasia/dysphagia, profound inattention/neglect)</td>
<td>Admit to acute inpatient care if discharge home is unsafe or otherwise contraindicated FOLLOWED BY Discharge to the first of the following settings that is clinically appropriate and available: • Home/community, and referral to outpatient clinic with stroke-prevention services • OP/home-based rehab • IP rehab, followed by OP/home-based rehab</td>
</tr>
<tr>
<td>Patient Group</td>
<td>Patient Characteristics/Triage Criteria</td>
<td>Recommended Care Pathway</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2. Stroke: moderate (AlphaFIM® 41–80)</td>
<td>Patients presenting to hospital with acute stroke, with an early AlphaFIM® score of 41–80 recorded within 72 hours of presentation to hospital, or with significant considerations (e.g., advanced age, caregiver availability, severe cognitive/perceptual needs, severe aphasia/dysphagia, profound inattention/neglect)</td>
<td>Admit to acute inpatient care FOLLOWED BY Admit to inpatient rehabilitation FOLLOWED BY Discharge home with outpatient/home-based rehabilitation and/or community-based supports, where required</td>
</tr>
<tr>
<td>Patient Group</td>
<td>Patient Characteristics/Triage Criteria</td>
<td>Recommended Care Pathway</td>
</tr>
<tr>
<td>---------------</td>
<td>----------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>3. Stroke: severe (AlphaFIM® 40 or less)</td>
<td>Patients presenting to hospital with acute stroke, with early AlphaFIM® score of 40 or less recorded within 72 hours of presentation to hospital</td>
<td>Admit to acute inpatient care FOLLOWED BY: Admit to IP rehab, if able to tolerate, OR (if not able to tolerate) consider as candidate for discharge to CCC or slow-stream rehabilitation program, followed by admission to IP rehab where possible FOLLOWED BY: D/C home with OP/home-based rehabilitation and/or community-based supports, where required</td>
</tr>
</tbody>
</table>
Overview of Modules 6-9
Module 6: Community

Discharge Planning Recommendations:

- **Standardized processes in place** to ensure before transition, a follow-up appointment(s) scheduled with primary care provider for after transition.
- Patients receive **follow-up phone call** from designated health care professional **within 48 hours of discharge from hospital to home** to monitor progress, enhance pt education, and ensure Home care services in place.
- All necessary equipment and training occurs **prior to discharge**.
Key Messages

• Well-resourced, coordinated, specialized IP team (affiliated with discharging hospital)

• Available **within 48 hrs** from acute and **72 hrs** of discharge from inpt rehab

• Provided **5 days per week at same level of intensity** as IP setting

Implementation Considerations

• Does not currently exist in Ontario, LHINs need to find capacity to ensure access

• Hospitals should manage waiting list for patients waiting in the community for hospital-based rehabilitation
Key Messages

- **Driving** - Should not resume driving until assessed
- **Swallowing** - Pts with new or worsening dysphagia be referred to SLP/RD
- **Communication** - Pts with known/suspected communication difficulties be referred to SLP
- **Nutrition** - Screen for malnutrition & dehydration
- **Visual Perception** - Screen for visual perceptual deficits
- **Depression** - Screen for depression/risk
- **Cognition** - Pts with vascular risk factors should be screened for vascular cognitive impairment
- **Falls** - Screen at admission for risk of falls
Key Messages

• Timing -
  o Rehab should begin as early as possible once medical stability established
  o Should be available within 48 hours of discharge from an acute care hospital or 72 hours of discharge from inpatient rehabilitation

• Interprofessional, specialized team

• OT, PT & SLP 2-3 visits per week, for 8-12 weeks

• Structured to provide as much therapy as possible within first 6 months after stroke
Key Messages

• Coordinated care plan
• Pts previously employed should be assessed for/provided vocational counselling
• Self management/educational plan
• Family counselling
Module 9b-g: Recommended Practices

- Mood & cognition
- Swallowing, nutrition/hydration, & communication
- Physical activity, fitness & ADLs
- UE management
- Shoulder & central pain management
- LE mobility
Implementation Considerations
• Resources available to encourage timely access and required intensity of service
• PT, OT & SLP should be provided 3 times/week = 9 visits over 7 days/week
• Progress should be reviewed at 8 weeks post hospital discharge
• Community based exercise programs should be available
• The pathways to the evidence based recommendations should be adopted by all providers
• Post acute medical discharge should consider patients home environment
Evaluation of Outcomes of QBP Implementation
Strategy for Patient Oriented Research (SPOR) Project

- Overarching goal is to **translate research results** into **improved health outcomes** for Canadians

- Excellent **alignment** between SPOR goal and Ontario’s focus on **evidence-based person-centred health care** as per ECFAA and Ontario’s Action Plan for Health Care

- **OSN SPOR Project Objectives:**
  - Ensure patient/family perspective incorporated into QBP implementation and the iterative evaluation
  - Inform development and implementation of QBPs for stroke in Ontario
  - Perform an iterative evaluation of stroke and where feasible other QBP implementation strategies
  - Develop a framework for ongoing evaluation of QBPs
QBP Resources

• Six rapid reviews from the community home care handbook for short stay populations were included as part of the evidence for the post-acute episode of care

• Two rapid reviews as part of the evidence in the acute episode of care

Next steps

• OSN has created an Executive Summary of the Handbook available on the OSN website
• Corrections/formatting changes being compiled by OSN to provide to HQO for consideration
• Support dissemination and KT; OSN providing educational webinar/videoconference (archived): June 5 (OP & Community Rehab) and June 24 (TIA)
• Collaborate with MoH, HQO, CIHI and others to improve data quality and availability
• Advance stroke QBP implementation through OSN Strategy for Patient-Oriented Research (SPOR) project
Q&A/Discussion

• What approach would you recommend for further communication and engagement?

• Any success stories you would like to share?
Thank You!

- Please email info@ontariostrokenetwork.ca with your position title and LHIN/Stroke Region
- Please forward additional questions regarding the presentation to info@ontariostrokenetwork.ca