



Quinte Health Care and Quinte Rehab Outcome Measures Specific to Stroke Retreat Report

As part of the South East Enhanced Community Stroke Strategy's focus on outcome measures, Quinte Health Care and Quinte Rehab began to look at what assessment tools and outcome measures both were using. Therapy managers from both sites surveyed therapists establishing an inventory of assessment/outcome measurement tools.

The first steps involved the development of a chart review of all assessment and outcome measures used by therapists in the hospital setting, the rehab day program and the community. Therapists were surveyed as to what outcome measures they used, what the item measured and clinical use. The therapy managers also reviewed the provincial consensus panel recommended outcome measurements

Once the initial inventory of assessment tools was completed, the planning group then categorized the tools by functional domains. Information was charted using the following headings: Cognitive/Perceptual; Activities of Daily Living; Emotion; Mobility, Language; Speech. The chart identified who used it, Quinte Health Care, Quinte Rehab and the provincial consensus panel. (Appendix 1).

In order to provide an environment for discussion, analysis and decision regarding outcome measures management developed a retreat format to bring the hospital and community therapists together and share the information.

Therapists were invited to a half day retreat. The retreat took place on March 5, 2009. The Retreat was designed to provide a forum for assessing the various outcome measures used in the hospital and community setting related to stroke rehabilitation. The forum began with an overview of the Provincial Stroke Strategy, and a review of outcome terminology to ensure all in attendance were using terms in a common understanding. Five selected tools were also profiles with the group. These were tools currently used in one setting but not both. They included the MoCA, STREAM, Assessment of Intelligibility of Dysarthric Speech COVS and BASDEC.

Twenty eight people attended the retreat. Physiotherapy, occupational therapy, speech language pathology and social work disciplines were represented. Physiotherapy represented 50% of the attendees.

Occupational Therapy represented 17%, Speech Language Pathology 11 % and Social Work 17 %. Management from both sites represented 5% of the attendees.

The group was divided into four smaller groups of mixed disciplines to assess the various tools which were divided by domains. The smaller groups assessed the various tools using the following categories: Clinical setting, client population, items measured, how results guide intervention, why tool used, advantages, disadvantages, ease of administration, feasibility and whether the therapists recommended the tool to be used across the continuum of care for Hastings Prince Edward Counties. (Appendix 2)

A post retreat survey was conducted using a survey monkey tool to assess the effectiveness of the day. The group was a well experienced clinical group with 41% reported 20+ years experience and 18% with 11-19 years experience. Years of experience providing stroke care indicated 19% with 20+ years, 12% with 11 – 19 years and 32% with 6-10 years experience. Those with 2- 5 years were 25% of the group. 82% stated they attended for professional development, 41 % also stated for personal interest. 6% stated it was mandatory.

100% claimed the objectives for the retreat were clear and 100% also stated the format met the objectives. With respect to increasing knowledge related to other disciplines' scope of practice 35% stated their knowledge was mildly increase, 30 % stated their knowledge was moderately increase 18 % stated significantly increase. 18% also stated their knowledge was somewhat increased.

Attendees were asked how the retreat was beneficial to their practice. They were invited to have more than one response. 94% stated networking across the continuum of care was the most beneficial. 82% stated enhanced knowledge of available outcome measures. 77% reported assisting in determining the outcome measures for stroke to be used in our region. 65% stated enhanced knowledge /awareness of best practice for outcome measures. 59% reported increased awareness of scope of inter-professional roles on the team.

Two questions were asked related to change in practice as a result of the retreat. 63% stated the retreat will change their practice relative to utilization of outcome measures 37% stated no change. 63% also stated they learned about an outcome measure that they would like to sue but is currently not available in their organization and 37% stated no.

Next Steps: the group identified outcome measures they would like further education on. They include the Chedoke-McMaster Stroke Assessment, the STREAM, the Frenchay Language Screening tool and swallowing/Dysphagia screening tools

Appendix 1

Outcome Measures Survey Chart

| Domain | Outcome Measure | Items Measured | Clinical Use | QHC | QDR | Consensus Panel |
|--------|---|---|---|-----|-----|-----------------|
| C/P | MoCA-Montreal Cognitive Assessment | Memory, abstraction, orientation, high-level, non aphasic | Easy to administer, used weekly | X | | |
| C/P | CLOT-Cognitive Linguistic Quick Test | Stroke and brain injury | Easy to administer, 2-3 times/week | X | | |
| C/P | MVPT-Motor Free Visual perceptual | Good for aphasics. Visual perception screen, concentration/memory | Easy – read book and score sheet, increase time to administer | X | X | X-alternate |
| C/P | OSOT-Ontario Society OT Perceptual Evaluation | Perception | Harder to administered, need ++ items. 1 hour to administer | X | | X-alternate |
| C/P | Cognitive Assessment of Minnesota | Memory/concentration | Easy/difficult – 1 hour | X | | |
| C/P | Folstein's minimal MMSE | Does not catch high level , orientation impairments well | Fair easy | X | X | X |
| C/P | Test for Everyday Attention | Concentration | 3/5 difficulty (5 being most difficult) – 1 hour | | | X |
| C/P | SNAP-Sunnybrook Neglect Assessment | | | | | X |

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|-----|--|---|--|--|---|---|
| | Protocol | | | | | |
| ADL | SMAF-Functional Autonomy Measurement System | ADL, mobility, IADL, mental status, communication | General screening tool for disability and handicap | | X | |
| ADL | COPM-Canadian Occ. Therapy Performance Measure | | | | X | |
| ADL | FIM | | | | | X |

| Domain | Outcome Measure | Items Measured | Clinical Use | QHC | QDR | Consensus Panel |
|--------|--|---|--|------|-----|-----------------|
| M | BERG-Berg Balance Scale BBS | Balance | Easy to use | X | X | X |
| M | STREAM-Stroke Rehab Assessment of Movement | Functional, including Upper and Lower Extremity and Mobility | 40 minutes, 3/5 easiness (5 being most difficulty) | | | |
| M | COVS-Clinical Outcome Variable Score | General Function | 20 minutes, fairly easy | X | | |
| M | Timed Up and Go | Mobility | Easy | X | X | X |
| M | 6 Minute Walk Test | | Easy | XRDH | X | X |
| L | Boston Diagnostic Aphasia Examination | Auditory and reading comprehension, verbal and written expression | Assess for rehab (time consuming) | X | X | X |
| L | Western Aphasia Battery | Auditory and reading comprehension, verbal and reading expression | Adults and children | X | X | |

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|---|---|-----------------------------|----------------------------------|---|---|---|
| L | FAST-Frenchay Aphasia Screening Tool | | Screening in acute and follow-up | | | X |
| L | Reading Comprehension Battery for Aphasia | Reading comprehension | Adults | X | | |
| L | Boston Naming Test | Word finding and vocabulary | | X | X | |
| S | Speech Intelligibility Tool | | | | X | |
| S | Dysarthria Profile | Assess adult motor speech | | X | X | X |
| E | BASDEC | Depression | | X | | |
| | | | | | | |

C/P - Cognition/Perception

M - Mobility

L - Language

E - Emotion

ADL - Activities of Daily Living

S - Speech

Appendix 2

Post Retreat Summary Chart

| OUTCOME MEASURE RETREAT – SUMMARY OF TABLE DISCUSSION | | | | | | | |
|--|-----------------------------|--|--|---|---|--|--|
| Tool/ Assessment | Clinical Setting | Client Population | Items Measured | How results Guide Intervention? | Why tool Used | Comments Advantages, Disadvantages/Ease of Admin/Feasibility | Is the tool recommended for use in stroke care across the continuum for our region? |
| Test of Everyday Attention (TEA) | Rehab and Community | Younger strokes,ABI and less severe strokes | Ability to pay attention to single and multiple tasks in various environments | Good test to determine abilities in this area | Very good for people who wish to RTW or other higher functioning activities | Need a very quiet place to conduct, lengthy, requires pt to have good hearing Cost =\$700- 1000 | NO |
| Folsteins Mini Mental State examination (MMSE) | All settings | All types of strokes | Cognition | Localizes area of cognition that is involved | Quick screen for cognition | Any discipline can conduct this test, widely known, easy to administer, uses verbal or written answers | YES |
| Ont Society of Occupational Therapists Perceptual Evaluation | All settings | All types of strokes Can use with aphasic pts | Determines if issues are perceptual visual or cognitive in | Once cause is determined, treatment can focus on that issue | To determine deficient and therefore cause of problem with | Multidimensional, very long but can be divided into sub- domains, costly | YES |

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| (OSOT) | | | nature | | activities | | |
| Motor-free visual perceptual test (MVPT) | All settings | All types of strokes – can use with aphasic pts. Tends to be better for less severe strokes | Determines level of visual perceptual involvement | Yes can assist with where pt has issues, can use as test-retest | Three versions to test at different levels so can pick a test appropriate for pt level | Easy to use- flip chart with pt just pointing, Approx 300 cost, smaller book style so can be carried with therapist. Do need to specify what version | YES |
| SMAF (Functional Autonomy Measurement System) | In-home Community | Older adults Not specific to Stroke | ADLs/IADLs Mobility, communication, Mental function | Identifies deficits/ gaps in functioning Directs goal setting | Screening tool for disability | Some limits – does not measure skin integrity , pain | NO – because of IADLs |
| COPM (Canadian Occupational Performance Measure) | All settings | Clients with a variety of disabilities across all developmental stages | Change in Clients self-perception of occupational performance over time | Client self scores identifies what is important to the client to be able to do. | Objective goal settings with client Provides pre and post measures | Client needs insight and judgment of disability | YES |
| FIM (Functional Independence Measure) | All settings | Generic calculation of disability applicable to many different populations | Assesses physical (13 items) and cognitive(5 items) disability in terms of burden of caring for | Severity of disability changes during rehab. The FIM score can track changes and analyze outcomes of rehab | Demonstrates change from admit to discharge | Use of the FIM requires training and certification. Total score is not always available to the rehab team. It then becomes a data collection tool | YES – if training is not an issues |

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| | | | individual | | | | |
| ALPHA FIM | Acute Brief version of the FIM | Same as FIM | Brief version of the FIM measuring 4 physical items and 2 cognitive items | Same as FIM | Same as FIM | Takes less time to administer than the FIM. Cautionary note – has been used to determine rehab potential – tool not designed to do so. | Same as FIM |
| BASDEC Brief Assessment Schedule Depression Cards | All settings | All types of strokes except those experiencing receptive aphasia | Assessing depression | Score of 7 or greater may indicate depressive symptoms severe enough to warrant intervention | Easy to administer, cards can make it safe to express thoughts and feelings | Important to have a relationship with client. Need a follow-up plan to support client. Can be administered by several disciplines | YES |