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OM Toolkit Implementation Glossary

**ADL:** Activity(ies) of Daily Living

**BP:** Best Practice(s)

**BPI:** Best Practice Implementation

**CCAC:** Community Care Access Centre

**CSN:** Canadian Stroke Network

**CSS:** Coordinated Stroke Strategy

**FG:** Focus Group

**ICES:** Institute for Clinical Evaluative Sciences

**IS:** Implementation Science – scientific methods to promote the systematic uptake of clinical research findings and other evidence-based practices into routine practice and hence, to improve the quality and effectiveness of health care.

**NIRN:** National Implementation Research Network

**OM(s):** Outcome Measure(s)

**ABC:** Activities-Specific Balance Confidence Scale

**Berg:** Berg Balance Scale (BBS)

**BESTest:** Balance Evaluation Systems Test

**CB&M:** Community Balance and Mobility Scale

**COVS:** Clinical Outcome Variable Scale

**E-FAP:** Emory Functional Ambulation Profile

**MWP:** Mobility for Wheelchair Paraplegics

**SCI-FAI:** Spinal Cord Injury – Functional Ambulation Index

**SCIM III-Mobility:** Spinal Cord Independence Measure (version III) – Mobility Subscale

**SF-36/12:** Short Form health survey; 36 refers to version with 8 scaled scores; 12 refers to a subset of SF-36.

**TMT:** Timed Motor Test
**TUG:** Timed Up and Go test

**WC:** Wheelchair Circuit

**WMS:** Walking Mobility Scale

**WSCII:** Walking Index for Spinal Cord Injury version II

**WST:** Wheelchair Skills Test

**2 MWT:** 2 Minute Walk Test (administered within SCI-FAI)

**4FTPSTMW:** Functional Tests for Persons Who Self-Propel a Manual Wheelchair

**6 MWT:** 6 Minute Walk Test

**10 MWT:** 10 Metre Walk Test

**OT(s):** Occupational Therapy; Occupational Therapist(s)

**PT(s):** Physiotherapy, Physiotherapist(s), Physical Therapy, Physical Therapist(s)

**Psychometrics**

- **Rel:** Reliability
- **V:** Validity
- **Resp:** Responsiveness

**PUL chart:** Power, Urgency, Legitimacy assessment of stakeholders

**QoL:** Quality of Life

**QUERI:** Quality Enhancement Research Initiative

**RNAO:** Registered Nurses Association of Ontario

**SCI:** Spinal Cord Injury

**SCIRE:** Spinal Cord Injury Rehabilitation Evidence (www.scireproject.com)

**tPA:** tissue Plasminogen Activator

**UWO:** University of Western Ontario

**VA:** Veterans Affairs

**WG:** Working Group

**WSIB:** Workplace Safety Insurance Board
EXECUTIVE SUMMARY

The intent of this SCI OM Toolkit implementation guide is to accelerate standardized outcome measurement best practice adoption in the treatment of individuals with SCI. Given that implementation science is relatively new to the health care sector, a glossary is provided to assist with new terminology and this begins on page 2. By providing an introduction to the science of implementation with a simplified, step-wise approach and a SCI specific case study, you are encouraged to not only tackle the implementation of outcome measure best practices but also the implementation of other evidence-based best practices in your clinical environment. The SCI OM Toolkit is an up-to-date synthesis of the evidence-base behind the most prevalent outcome measures used in the treatment of individuals with SCI. However, not all outcome measures are contained within the OM Toolkit, especially those OMs without SCI specific evidence. Consideration for OMs not included in the SCI OM Toolkit is an example of customizing implementation efforts to the local context (i.e. inpatient population; clinician area of interest).

This implementation guide and accompanying case study takes you through a 5 step process to ensure that you:

1. Choose the most appropriate OMs to implement for your local environment
2. Engage the pertinent spectrum of stakeholders
3. Complete a scan of your local environment to understand barriers and facilitators to BPI
4. Choose multiple implementation strategies linked to the findings of the environmental scan
5. Evaluate your implementation efforts to form a basis for continued improvement.

Following these steps should lead to the promotion of positive clinical and organizational cultures that continue to be supportive of practice improvement efforts.
Implementing the OM toolkit: How Clinicians and Managers can Move the SCI-OM Toolkit into Practice.

With newsworthy scientific breakthroughs frequently bombarding the general public, a common assumption is that that our health care incorporates the best scientific evidence available. In reality, it takes on average 17 years (IOM2001) for new knowledge to be incorporated into practice and even so, incorporation is inconsistent jurisdictionally. The U.S. Department of Veterans Affairs Quality Enhancement Research Initiative (QUERI) was convened to facilitate best practice implementation utilizing implementation science principles throughout the VA system (Stetler et al 2008). Descriptions of this still-evolving effort are important for other implementation programs to consider. The outcomes of specific implementation efforts resulting from QUERI initiatives are not yet readily available.

The Canadian Stroke Network (CSN) and their Coordinated Stroke Strategy (CSS) have reported on the use of recombinant tissue Plasminogen Activator (tPA) for treatment of acute ischemic stroke, leading to an example of expedited knowledge translation facilitated by implementation science principles over many years. Despite the National Institute of Neurological Disorders and Stroke PA Stroke Study Group published recommendations for tPA use in 1995, Fang et al (2010) recently reported that “Although tPA administration for ischemic stroke has increased nationally in recent years, the overall rate of use remains very low.” Fortunately, the CSN and CSS have initiated an approach incorporating elements of implementation science to systematically improve the rate of best practice uptake for treatment of stroke in Canada. The Institute for Clinical Evaluative Sciences (ICES) also recently reported (Saposnik 2010) that the CSS is going in the right direction by incorporating implementation, evaluation and continuous quality improvement as essential elements for best practice adoption. This is supported by interim reports (Nadeau et al 2005) that tPA use in selected Canadian sites is higher than previously reported. As noted in the above QUERI example, best practice implementation in SCI is still evolving. But we are attentive to the developments in other neurological indications such as stroke, to expedite similar activities in SCI. Other groups that are dedicated to closing the gap between best practices (i.e. evidence-based and theoretical) and actual practices, are the National Implementation Research Network (NIRN) and the Registered Nurses Association of Ontario (RNAO). RNAO offers several implementation resources focused on implementation of nursing best practices. A NIRN synthesis of the implementation literature covers multiple domains (e.g. agriculture, business, engineering, health, justice and social services) and draws out common elements that are particularly helpful to consider for implementation efforts that can be scaled up nationally. NIRN also emphasizes the importance of evaluation as a basis for continued improvement cycles.
What is the purpose of the SCI OM Toolkit Implementation Guide?

The main purpose of this SCI OM Toolkit Implementation Guide is to describe the basic elements of implementation science in a practical and user-friendly way in order to foster SCI OM Toolkit implementation and encourage further implementation activities within clinical practice.

The SCI OM Toolkit employs the definition of implementation science as the “scientific methods to promote the systematic uptake of clinical research findings and other evidence-based practices into routine practice and, hence, to improve the quality and effectiveness of health care.” (Foy et al 2001; Graham et al 2006)

As the interest in evidence-based, best practice implementation gains momentum in SCI and generally across the health services sector, it is important to understand that more/or better research for a best practice or the outcome of a best practice does NOT translate into implementation of the best practice. Implementation (i.e. steps towards uptake, adoption, adaptation, sustainability and scalability) of a best practice is a related but separate process, that is also evidence-based, and that needs to be considered in parallel with the best practice recommendation under review for implementation.
**Steps for Implementation**

There are generally 5 steps in the process of best practice implementation.

**Step 1:** Selection of best practice for implementation

**Step 2:** Stakeholder identification, analysis and engagement

**Step 3:** Assessment of environmental readiness (including consideration of available resources and supports)

**Step 4:** Choosing your implementation strategies

**Step 5:** Evaluating the implementation project

Each of these steps will be described further in the sections that follow. Each section will contain a concrete example that is further detailed in an appended Case Study booklet: SCI OM Toolkit Case Study
The evidence-base behind a best practice recommendation does not address the effectiveness of best practice utilization. To evaluate the latter, one must understand the extent that the best practice was delivered by the practitioners and organization, or received by the recipients. Were the right people engaged in delivering the best practice? In attempting implementation, were other health provider colleagues appraised and trained to ensure consistency across a patient’s treatment activities? Are the appropriate health colleagues familiar with the chosen best practice and the rationale for their adoption? Is there an understanding of when and how frequently a particular best practice is to be used? Inconsistencies in any of the who, what, why, where and when factors may contribute to implementation failure. Furthermore, sustaining the newly implemented best practice will be dependent on reinforcing the implementation strategies (i.e. reminders, training, education, champions, etc.) over time and adapting them to changing programmatic and organizational supports (staff turnover, evolving program elements and resources, etc.).

Following a well documented, evidence-based implementation process will optimize the sustainability of the implemented best practice. This process should: 1) survey the evidence behind best practices, 2) involve all those affected by implementation efforts, 3) take into account programmatic and institutional realities, 4) include multi-faceted strategies and 5) allow for evaluation and feedback towards further improvement cycles. Learnings from this implementation process should be detailed enough that other sites or programs wishing to also adopt the best practice will have enough information to adapt it to meet their own needs. These characteristics of the implementation process will also ensure scalability (i.e. extending implementation of the chosen best practice to other centres across the continuum of care). The appended case study provides concrete implementation process step examples specific to an implementation effort in a dedicated SCI rehabilitation program utilizing the SCI OM Toolkit. This implementation guide does not address sustainability and scalability issues of implementation. These latter issues are being directly addressed in other initiatives funded by the SCI OM Toolkit sponsors (RHI and ONF). Results of the RHI-ONF Knowledge Mobilization Network will be reported as available.
The first step in the implementation process, selection of best practices for implementation, has been initiated for you with respect to amassing the available evidence-base for outcome measures used in the treatment of individuals with SCI. The selection methodology is described in the companion document (appended). In brief, the inadequacy of peer-reviewed literature on outcome measures makes it difficult for busy front line clinicians to make informed decisions. The evidence behind each outcome measure requires systematically reviewing the published literature and assessing the data. This has been completed in the SCI OM Toolkit for the following OM psychometric characteristics:

a. **Reliability** - Does the tool give consistent measurements?
b. **Validity** - Does the tool measure what it purports to measure?
c. **Responsiveness** - Is the tool sensitive to changes within patients over time?
d. **Interpretability** - How clinically meaningful are the scores?
e. **Acceptability** - How acceptable is the tool in terms of completion by the patient - does it represent a significant burden?
f. **Feasibility** - What is the extent of clinical burden (e.g. effort, time, expense) required to administer the tool?
In the SCI OM Toolkit, measures were reviewed for each of the following domains:

- **Mental Health**
- **Pain**
- **Spasticity**
- **Skin health**
- **Sexuality and reproduction**
- **General functions and SCI**
- **Lower limb function and walking**
- **Upper extremity function**
- **Wheeled mobility**
- **Self-care/ADLs**
- **Community Re-Integration/Participation**
- **Quality of Life**
- **Assistive Technology**

For the SCI OMT, a representative sample of stakeholders were asked to consider various criteria including evidence-base and feasibility/usability within an online multi-round Delphi process to achieve consensus on the specific tools for inclusion in the SCI OM Toolkit. The toolkit contains a roster of tools and accompanying information to assist selection relative to specific local needs, although it should be acknowledged that local demands may require consideration of additional tools.
When making your final outcome measure selections, your local patient population and clinical and organizational supports and resources should be considered. Please note that OM tool selection and stakeholder analysis/engagement may occur in tandem and be reassessed at various times during your implementation activities.

Examples of local selection processes are shown in the SCI OM Toolkit Case Study booklet with the following key points:

**Rehabilitation Hospital: SCI Mobility OM Implementation Pilot Project**

The Parkwood Hospital SCI Physiotherapists were interested in utilizing best practices in outcome measurement for mobility in their inpatient population. By getting together and discussing their needs with related stakeholders (researchers, academics, patients, allied health and hospital administrators), the initial goal was modified to fit the available evidence, clinical feasibility, inpatient population, clinical goals, available workload and resource issues. Some of the key considerations in final OM selection were as follows:

- Initially, there were 5 domains of interest: Locomotion, Posture/balance, Participation/QoL, Wheelchair mobility, Pain.
  - Implementation and workload feasibility realities resulted in paring down to include only locomotion and posture balance.
  - Other domains will be addressed in future implementation activities.
- SCI OM Toolkit summaries pertaining to available evidence, administration time, training/equipment requirements and acceptable psychometrics assisted in selection of 5 of the 9 OM tools selected.
  - This group of PTs were also interested in measuring the quality of locomotion and identified SCI Functional Ambulation Index to implement even though it was not included in the OM Toolkit. BESTest, Community Balance & Mobility Scale, and the Activities Balance Confidence Scale were similarly chosen.
Although evaluation of an implementation project occurs towards the latter part of the implementation process, consideration for evaluative performance indicators should begin in conjunction with selection of best practices for implementation. Implementation success for the selected best practice needs to be measured programmatically at an organizational or contextual level and at a stakeholder level for compliance and competence, pre and post implementation. For a brief discussion of project evaluation and examples of performance indicators, please refer to Step 5.
Increasingly, institutions and organizations are striving to implement best practices in a complex environment involving interrelated stakeholders. Ensuring implementation success requires that interactive processes are coordinated within a common goal by engaging relevant stakeholders. A sure recipe for implementation disaster is to engage only a narrow spectrum of stakeholders in the hopes that others will “fall in line” – it is essential to having meaningful and broad engagement in place from the outset.

There are many ways to categorize stakeholders but in all cases, stakeholders (individuals, groups and/or organizations) should be analyzed for interest and influence. Implementation involves a source of information to be delivered to a specific destination via communication/feedback that can influence the success of the activities within an organizational structure and culture (NIRN: National Implementation Research Network) as outlined in the figure below.
Therefore, a stakeholder analysis should be conducted for all potential influences on the implementation activity and stakeholder engagement should be customized accordingly – ideally ensuring that representation of stakeholders is sufficiently broad and not overwhelmed by one category of stakeholders. Final decisions regarding stakeholders must be considered with respect to the local context. Please note that OM selection and stakeholder analysis/engagement is a simultaneous and iterative process. Examples of local selection processes are shown in the SCI OM Toolkit Case Study booklet with the following key points:

Rehabilitation Hospital: SCI Locomotion™ OM Implementation Pilot Project

(“This OM Implementation project was refocused on locomotion (previously, mobility) when wheelchair mobility and other domains of interest were omitted after step 1).

- The project utilized a broad definition of stakeholder: “any group or individual who can affect or is affected by the achievement of the objectives” (Freeman 1984). This broad definition precludes a priori exclusion. However, 3 attributes help to assert the stakeholder’s claim: power, urgency, legitimacy, (Mitchell et al 1997): 1) Power is the ability to influence the organization or goal (is transitory; can be acquired or lost); 2) Urgency is the degree to which stakeholder claim calls for immediate attention; 3) Legitimacy is the nature of the relationship to the organization or goal.

  i. Identified stakeholders included all senior and junior PTs involved with the SCI program, allied health colleagues (Physiatrist, nursing, OT, RT), researchers, affiliated University PT program representative, patients, insurers and hospital/program administrators.

  ii. A core working group included PTs, researchers, some allied health colleagues, University representative, patient, administrator.

  iii. Those who could not commit the time to the core working group were provided with all study documentation asked to participate in a focus group to provide feedback to the working group.

  iv. Only one stakeholder (i.e. insurer) declined participation. Even if stakeholders are identified, engagement may not always be possible.
Of note, this example demonstrates the importance of including stakeholders not typically considered for implementation activities beyond the usual identification of directly-affected clinicians and their administrators (e.g., patients, other clinicians, funders, academics/educators).

Although evaluation of implementation projects occurs towards the end of the implementation process, consideration for evaluative performance indicators should be consistent with the process of stakeholder analysis and engagement. This is important as different stakeholders may desire varying aspects of the implementation to be assessed and with differing levels of granularity. Metrics chosen should relate to pre-post implementation compliance and intervention competence. Programmatic metrics may measure resource support for the implementation project and its ultimate effect on implementation success. For a brief discussion of project evaluation and example performance indicators, please refer to Step 5.
With the relevant stakeholders engaged, a comprehensive environmental assessment should be undertaken to ensure that the clinical and organizational cultures are supportive of the intended practice change. Key stakeholders should be engaged in the environmental assessment while other identified stakeholders should be continually informed and provided an avenue for communication through the assessment and implementation process.

Graham et al (2006) asserts that the knowledge to action cycle requires adapting knowledge to the local context, assessing barriers to knowledge use, and monitoring and evaluating knowledge use and outcomes to encourage sustained knowledge use. The National Implementation Research Network (NIRN) indicate there are 9 key drivers in the domains of staff, system and leadership that are essential to successful implementation: selection, training, coaching, decision support data, facilitative administration, systems intervention, adaptive, technical and performance assessment.
The Registered Nurses Association of Ontario (RNAO) has developed a worksheet to simplify the environmental assessment by identifying the facilitators and barriers of the institutional structure, workplace culture, avenues of communication, values and commitment of the leadership, skills of the target group, integrity of interdisciplinary relationships and available resources. The NIRN group provide methodologies that are generalizable to all disciplines while the RNAO have customized many of their methods for the nursing community. Regardless, the overall purpose of these works is to establish a common goal amongst stakeholders for maximizing implementation success.
The environmental assessment described more fully in the SCI OM Toolkit Case study produced the following key results (with additional details available in the SCI OM Toolkit Case study):

Rehabilitation Hospital: SCI Mobility OM Implementation

- **Key implementation facilitators:** affiliation and proximity to active SCI research group (including a clinically embedded SCI researcher supportive of BPI); keen interest from PTs, allied colleagues and hospital administration; SCIRE and OM Toolkit availability; Parkwood is a member of an externally funded knowledge mobilization network.

- **Key implementation barriers:** limited available implementation science expertise; competing research interests, lack of funding, PT workload issues.

- **Fortunately the key implementation facilitators were able to mitigate the key implementation barriers to allow the project to proceed.**

As with each implementation step, consideration for evaluative performance indicators should relate to the environmental assessment, especially with respect to programmatic and context metrics even though evaluation occurs towards the end of the implementation project. For a brief discussion of project evaluation and example performance indicators, please refer to **Step 5.**
It has been established that passive dissemination of information is ineffective and that strategies must be carefully chosen to ensure that implementation results in behavior change towards clinical practice improvement (Bero et al 1998). After conducting a systematic review of 18 publications targeting various implementation strategies, Bero et al. (1998) noted that 4 strategies were found to be consistently effective:

1. **Educational outreach visits (for prescribing in North America)**
2. **Reminders**
3. **Multifaceted interventions (combining 2 or more of audit/feedback, reminders, local consensus processes, or marketing)**
4. **Interactive education meetings such as workshops with discussion and practice. Interventions used in isolation, use of local opinion leaders, patient mediated interventions, educational materials or lectures have variable to no effect.**

In the example case study (Appended), multiple implementation strategies were employed as is consistent with the evidence.
Rehabilitation Hospital: SCI Locomotion OM Implementation project employed multiple implementation strategies:

1. Limited research funding was selectively spent on importing implementation science expertise to guide the project while staff enthusiasm, supportive administration and engaged champions willingly participated without additional compensation.

2. Outreach - Broad stakeholder engagement to raise awareness and acceptance of activities, encourage enthusiasm, gain multiple perspectives and input and encourage additional implementation activity.

3. Audit/feedback and local consensus – Chart review were conducted pre, during and post implementation with resultant feedback provided. Advisory group were also facilitated to inform and elicit feedback from stakeholders not able to commit the time required to participate fully.

4. Educational materials – SCIRE OM chapter, SCI-OM Toolkit and evidentiary summaries were provided to all participants with strategies to encourage and document consumption.

5. Reminders and marketing - Pre-formatted and clinically integrated OM forms (i.e. inserted into the patient charts) provide reminders to participants for continued use.

6. Marketing - Selecting champions for each selected OM not only provided a sense of ownership for each participant but also provided a showcase of professional competence between colleagues.
As with other phases of an implementation project, consideration for evaluative performance indicators for program compliance should be relevant to the implementation strategies chosen. For a brief discussion of project evaluation and examples of performance indicators, please refer to Step 5.
Evaluation should take place on multiple levels and although it is the last step in the iterative process of implementation towards continuous practice improvement, consideration for the level of evaluation and performance indicators should have begun early in the implementation process. Performance indicators (i.e. markers of healthcare) and measures (i.e. tools to assess markers of healthcare) should be chosen for each of implementation outcomes (i.e. related to behavior change) and intervention outcomes (i.e. related to impact). With respect to implementation outcomes, NIRN refers to fidelity (i.e. quality and accuracy) measures that reflect context (i.e. staffing, training, etc), compliance (i.e. new knowledge utilization) and competence (i.e performance level). These latter fidelity measures may relate to the target audience (i.e, patient, practitioner, structure/organization) and/or the process. Intervention outcomes relate primarily to the target audience (i.e patient, practitioner, structure/organization).
i. Implementation outcomes: The aim of the study was maximization of standardized locomotive related outcome measurement amongst the SCI physiotherapists treating SCI patients by engaging the full spectrum of stakeholders that will affect and be affected by this activity. In order to see a change in this performance indicator, the following performance measures were chosen:

- Context - Engagement and training
  - Target audience(s) - PTs, other stakeholders
  - Process - meetings, resources, inservice events, practice session etc.
- Compliance - Attendance, Level of Use scale
  - Target audience(s) - PTs
  - Process - meetings, resources, communication/feedback
- Competence - Stages of Concern and Level of Confidence Scales
  - Target audience(s) - PTs
  - Process - meetings, resources, communication/feedback

ii. Intervention outcomes: The aim of the study was to standardize mobility related outcome measurement amongst the SCI physiotherapists treating patients with SCI. In order to see an impact of this performance indicator, the following performance measures were chosen:

- Target audience(s)
  - PTs - Chart Audits to document utilization and incorporation of selected mobility outcome measures.
  - Other Stakeholders (decision makers) - attendance at study and advisory meeting(s).
Intervention outcomes such as impact on patients are typically part of a longer term evaluation and would consider additional factors such as clinical improvement and programmatic efficiencies or econometrics. Evaluation timeframes depend on the outcome being evaluated and the reason for evaluation. For example, the effect of standardized locomotion assessment on structural/organizational efficiencies in the sample case study would likely involve evaluation over years to collect data related to staff resourcing and achievement of patients’ mobility goals and optimizing length of stays. However, the immediate effect on practitioner behaviours should be measureable within months (i.e. pre and post implementation). Sustainability of practitioner behaviours, on the other hand, will require longer term data collection (i.e. years).
IMPLEMENTING THE OM TOOLKIT. HOW CLINICIANS AND MANAGERS CAN MOVE THE OM TOOLKIT INTO PRACTICE.

In the introduction, we noted that it takes on average 17 years for new knowledge to be incorporated into practice. Utilizing implementation science, the CSN/CSS has been able to demonstrate acceleration of this process. By providing this introduction to implementation science with a simplified, step-wise approach accompanied by a domain specific example, you are encouraged to not only tackle the implementation of outcome measures but also the implementation of other evidence-based best practices in your clinical practice.

The SCI OM Toolkit synthesizes much of the evidence-base behind the most prevalent outcome measures used in the treatment of individuals with SCI. Even so, the case study exemplifies the need to customize implementation activities to the local context (i.e. gathering the evidence for outcome measures not covered in the SCI OM Toolkit but appropriate for the local patient population and interests, skills and infrastructure of the SCI care providers and decision-makers) when selecting the best practice for implementation (i.e. step 1). Thereafter, systematically following the 5 steps outlined will ensure that you engage the appropriate stakeholders to promote efficient communication channels throughout the process. Being inclusive of a broader spectrum of stakeholders will assist in the choice of implementation strategies and performance indicators towards best practice adoption success. With the relevant stakeholders engaged and a comprehensive environmental assessment completed, clinical and organizational cultures should continue to be supportive of the intended practice change.

CONCLUSION
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APPENDIX A: REHABILITATION HOSPITAL CASE STUDY

Rehabilitation Hospital Profile

The Hospital site focuses on Complex Care, Rehabilitation, Specialized Geriatric Services and Veterans Care. The Rehabilitation program services Acquired Brain Injury, Spinal Cord Injury (SCI), Amputee, Musculoskeletal, and Stroke/Neurological/Neurotrauma populations through in/out-patient and outreach programs that include a driving program, fitness centre, assistive technologies and other health services.

Rehabilitation SCI Program Profile

This SCI program has a 15 bed inpatient rehabilitation unit specifically designed for individuals who have had a spinal cord injury -- either traumatic such as from a motor vehicle accident or fall; or non-traumatic such as from spinal metastases. Persons with other conditions that affect the nervous system such as Guillain-Barre Syndrome may be admitted to the program. In addition to intensive, integrated and specialized inpatient rehabilitation, the program offers post-discharge follow-up with specialized clinics, outpatient services, educational/support groups, a research program and an adapted fitness centre.

The program goal is to enable the patient to reach an optimal level of functioning to reintegrate into the community. Physiatry, Nursing, OT/PT/TR, Psychology, Psychometry, Nutrition, Pharmacy and Social Work services are offered. Inpatient and outpatient consultation is available for assistive devices, case coordination, chaplaincy, nutrition, medicine (general, rehabilitation and orthopaedic), OT, PT, Pharmacy, Psychology, Research, Respiriology, Speech Language Pathology, Social Work and Therapeutic Recreation. Additional consultative services affiliated with Parkwood include community care (agencies, case coordination and nursing), chiropody, general surgery, internal medicine, neurology, obstetrics and gynecology, orthotists and prosthetists, education, translation, urology and wheelchair vendors. Other services available include a Driver Assessment and Rehabilitation Program which is an approved assessment centre with the Ministry of Transportation. The Program has two vehicles – a sedan and a fully accessible van. Both vehicles have an array of adaptive driving devices. Additionally through the NeuroTrauma Rehab service, clients can be assessed for assistive technology applications to help
with increased independence in computer access, environmental controls, etc.

The SCI Program has a strong partnership with the Canadian Paraplegic Association of Ontario. All patients are introduced to the resources available through CPAO including the Peer Support Program. The Living Well with Spinal Cord Injury Educational Series provides both information to spinal cord injury survivors and their families but also a consumer perspective.

**SCI Physiotherapy Profile**

At this Rehabilitation Hospital, Physiotherapists work within a Program Management Structure. Physiotherapists (4.5 FTE Physiotherapists and 2.5 support staff) are dedicated to the SCI Rehabilitation Program. This structure supports physiotherapists becoming very specialized in Spinal Cord Injury Rehabilitation. Staff have received education in acupuncture, Bobath/NDT approach to Spinal Cord Injury, Neuro-Optometric Rehabilitation, orthopaedic physiotherapy courses, e.g., manual therapy, mobilization of the nervous system. The physiotherapists as a part of the team regularly attend provincial SCI-specific conferences and program exchanges as well as the education sessions we co-host with the Canadian Paraplegic Association. The SCI physiotherapists have taken the lead in collaboration with Recreation Therapy in creating and implementing the Parkwood Fitness Centre. This provides a fully adapted fitness facility for those who are unable to access fitness facilities in the community. The staff also assist individuals with spinal cord injury to bridge to community fitness programs.

**Issue**

There are numerous outcome measurement / assessment tools available for clinicians working with individuals with SCI. However, rehabilitation clinicians do not currently have a consensus on which tools to use in practice. Instead various tools are used that may differ from therapist to therapist or within a specific therapist’s practice when assessing a specific construct. This group of SCI PTs wished to increase their ability to compare and communicate results among colleagues, peers and patients. The PTs wanted to choose a subset of evidence-based outcome measurement tools that were relevant to the local SCI patient population to enable systematic and standardized measurement. In addition, they noted that if they selected tools with established utility and validity for the SCI population, there would be an increased ability to compare results with other centres.
A pilot implementation study was designed to establish valid, quantifiable, and relevant outcome measurement practices. This would enable Physical Therapists to guide and evaluate rehabilitation practices in order to provide benchmarks and summarize change related to the condition and care of individuals with SCI. A secondary objective of this pilot study was to evaluate the antecedents to behavior change associated with clinical practice.
Methods

Ensuring best practice adoption of outcome measure (OM) use by following the principles of Implementation Science which are defined as: scientific methods to promote the systematic uptake of clinical research findings and other evidence-based practices into routine practice and, hence, to improve the quality and effectiveness of health care." (Foy et al 2001; Graham et al 2006).

This pilot study was designed around a 5-step implementation process to assist clinicians and managers in systematically moving evidence-based SCI locomotion related outcome measures into clinical and programmatic practice:

1. Selection of best practices for implementation.
2. Stakeholder identification, analysis and engagement.
3. Assessment of environmental readiness (including consideration of available resources and supports).
4. Choosing your implementation strategies.
5. Evaluating the implementation project.

Objectives

1. Primary Objective - establish valid, quantifiable, relevant outcome measurement practices by reviewing the evidence base, performing a gap analysis of the local context, and engaging stakeholders throughout the implementation process

2. Secondary Objective - evaluate the antecedents to behavior change associated with a change in clinical practice by measuring knowledge acquisition, level of OM use and characteristics of clinical behavior change throughout the implementation process
Results

**STEP 1: SELECTION OF BEST PRACTICES FOR IMPLEMENTATION**

Please note that Step 1 and 2 often need to occur simultaneously.

The selection of best practices for implementation requires the thorough synthesis of the evidence-base behind the best practices under consideration. This project was fortunate to have two evidentiary syntheses already available for immediate use (SCIRE OM chapter and SCIRE OM Toolkit). These syntheses amassed and interpreted the published literature for each OM with respect to reliability, validity, responsiveness, interpretability, acceptability and feasibility. SCI OMs relative to locomotion, posture/balance, wheeled mobility, pain, participation and quality of life were initially considered. However, due to workload and resource constraints, this initial focus was refined to include only OMs related to locomotion and posture/balance. Within the selected domains, OMs not included in the OM Toolkit were also considered to accommodate the characteristics of the local inpatient population and areas of interest of the PTs (i.e. customizing to the local context). Following are the chronological activities for the Parkwood project:

- The Working Group (WG; See Step 2 – stakeholder analysis and engagement for WG membership) met with researchers to review the evidence base for Mobility OMs:
  - SCIRE OM chapter Mobility section (http://www.scireproject.com/outcome-measures/mobility)
  - SCIRE OM Toolkit Mobility section
  - OMs of interest not included in a. or b. above (i.e. BESTest, Community Balance & Mobility)
  - A resource booklet was created and distributed which included an overall gap analysis (see below) that summarized the resources noted above along with a copy of the OM itself and 1-3 key articles associated with each OM.
- The WG met for group discussions during the OM selection process and below are OM related excerpts from WG minutes:
**WG general discussion in June: 6 PTs, 2 Researchers and RA in attendance**

**Agenda item 4:** Domains of interest for this iteration of OM BPI


**Conclusions:** Research colleagues will gather information/evidence for WG to discuss towards ultimate selection at next meeting (booklet will be sent out by 17Jun).

**WG gap analysis on June (OM Feasibility and Psychometric Comparison):**

<table>
<thead>
<tr>
<th>OM</th>
<th>Feasibility</th>
<th>Psychometrics</th>
<th>Other comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Time</td>
<td>Training</td>
<td>Equipment</td>
</tr>
<tr>
<td>Mobility - GAIT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 MWT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6MWT</td>
<td>Quick</td>
<td>Basic w/CPR</td>
<td>Basic plus§</td>
</tr>
<tr>
<td>10MWT</td>
<td>Quick (30s)</td>
<td>Basic</td>
<td>Basic</td>
</tr>
<tr>
<td>COVS</td>
<td>35m (5m by tel)</td>
<td>Basic</td>
<td>Basic</td>
</tr>
<tr>
<td>E-FAP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FST</td>
<td>&lt;20m</td>
<td>Specialized</td>
<td>Specialized</td>
</tr>
<tr>
<td>SCI-FAI</td>
<td>2m</td>
<td>Specialized</td>
<td>Basic (opt video)</td>
</tr>
<tr>
<td>SCIM III- Mobility</td>
<td>Not quick</td>
<td>Specialized</td>
<td>Basic</td>
</tr>
<tr>
<td>TMT</td>
<td>60-90m</td>
<td>Basic</td>
<td>Basic</td>
</tr>
<tr>
<td>TUG</td>
<td>Quick</td>
<td>Basic</td>
<td>Basic</td>
</tr>
<tr>
<td>WMS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WISCI II</td>
<td>Quick</td>
<td>Basic</td>
<td>Basic</td>
</tr>
<tr>
<td>Mobility - WHEELED</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35-45m</td>
<td>Basic</td>
<td>Basic</td>
<td>Basic</td>
</tr>
<tr>
<td>MWP</td>
<td>&lt;15m</td>
<td>PT</td>
<td>Basic</td>
</tr>
<tr>
<td>WC</td>
<td>Not quick</td>
<td>Clinician</td>
<td>Specialized</td>
</tr>
<tr>
<td>WST</td>
<td>12-70m</td>
<td>Clinician</td>
<td>Specialized</td>
</tr>
</tbody>
</table>
OM Toolkit: Implementation Steps

WG OM discussion in June: 4 PTs, 1 UWO PT program rep, 1 outpatient, 2 Researchers and RA in attendance.

**Agenda item 3:** OM Selection

**Discussion:** QOL measures may open up issues PT’s are not able to address. QOL measures are typically only used in certain patient specific situations and therefore would not be beneficial to include in the project. As an example, the SF-36/12 are used in conjunction with a specific intervention and data collection/interpretation are correlated to the intervention. In this pilot project, there is no patient intervention and therefore interpretation would not be relevant to other selected OMs. However, QoL results may provide useful information that may be generally didactic for the PT’s scope of practice. Therefore, QoL OMs will be deferred to a later time.

**Conclusions:** POMSCI will not include the Participation/QOL domain at this time.

WG final OM selection in August: 5 PTs, 1 OT, 1 Nurse Specialist, 1 UWO PT program rep, 1 outpatient, 2 Researchers and RA in attendance.

**Agenda item 2:** Confirmation of final OM selection

**Discussion:** PT’s agreed to start out more inclusive with OM’s and see how it goes. Potential re-evaluation if find there are too many OM’s to be used in practice

**Conclusions:** To be included: SCI-FAI, 6 Min Walk Test, 10 Metre Walk Test, SCIM (locomotion), Berg, TUG, CB&M, BESTest, ABC

### OM Champion Assignment (Training & Practice Leads)

<table>
<thead>
<tr>
<th>Measure</th>
<th>In/Out</th>
<th>Training Y/N</th>
<th>Champion</th>
<th>Timing of Ax</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCI-FAI</td>
<td>Yes - Inpt &amp; Outpt</td>
<td>Longer</td>
<td>PT5</td>
<td>Admission &amp; D/C</td>
<td>able to ambulate with supervision</td>
</tr>
<tr>
<td>6 Min Walk</td>
<td>Yes - Inpt &amp; Outpt</td>
<td>Quick</td>
<td>PT6</td>
<td>Admission &amp; D/C</td>
<td>able to ambulate with supervision</td>
</tr>
<tr>
<td>10 Metre walk</td>
<td>Yes - Inpt &amp; Outpt</td>
<td>Quick</td>
<td>PT6</td>
<td>Admission &amp; D/C</td>
<td>able to ambulate with supervision</td>
</tr>
<tr>
<td>SCIM-Loco-motion</td>
<td>Yes - Inpt, some Outpt</td>
<td>Longer</td>
<td>PT4/PT2</td>
<td>Admission &amp; D/C</td>
<td>any level</td>
</tr>
<tr>
<td>TUG</td>
<td>Yes - Inpt &amp; Outpt</td>
<td>Quick</td>
<td>PT6</td>
<td>Admission &amp; D/C</td>
<td>able to ambulate with supervision</td>
</tr>
<tr>
<td>Berg</td>
<td>Yes - Inpt &amp; Outpt</td>
<td>Quick</td>
<td>PT2</td>
<td>Admission &amp; D/C</td>
<td>at least some sitting balance, ideally able to stand</td>
</tr>
<tr>
<td>CB &amp; M</td>
<td>Yes - Outpt, some Inpt</td>
<td>Medium</td>
<td>OT1</td>
<td>as required</td>
<td>for high level patients, able to stand on one leg</td>
</tr>
<tr>
<td>BESTest</td>
<td>Yes - Inpt &amp; Outpt</td>
<td>Longer</td>
<td>OT1</td>
<td>TBD</td>
<td>need to purchase DVD for training and get incline ramp</td>
</tr>
<tr>
<td>ABC</td>
<td>Yes - Outpt, some Inpt</td>
<td>Quick</td>
<td>PT3</td>
<td>Admission &amp; D/C prep</td>
<td>ambulatory, fall risk</td>
</tr>
<tr>
<td>HiMat</td>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Not to be included.</td>
</tr>
</tbody>
</table>

*suggested that a summary chart of the measures would be helpful to cue therapists and keep track of what was done and make data collection easier. For outpts measures could also be collected during a progress assessment.

*need a sheet with the following measures - SCI-FAI, 6 Min walk, 10 m walk, TUG and ABC combined, then have separate forms for the other measures.
Although evaluation of an implementation project occurs towards the latter part of the implementation process, consideration for evaluative performance indicators should begin in conjunction with selection of best practices for implementation. In Step 1 of the Parkwood project, quantification of information uptake (reading/training log) and participation (practice log and WG meeting attendance) may inform the potential for success of implementation efforts. For example, if information uptake and participation are minimal at the outset of the study, the potential for success is diminished but may be bolstered with additional efforts towards uptake and participation. Understanding the pattern of uptake and participation throughout the study can inform future implementation activities (i.e. need to reinforce strategies at the start, middle or end of the study to improve success rate).
Please note that Step 1 and 2 often need to occur simultaneously.

Given that health institutions are complex environments with many interrelated stakeholders, this implementation project chose to use a broad definition of stakeholder (“any group or individual who can affect or is affected by the achievement of the objectives” [Freeman 1984]) to preclude a priori exclusion but required the stakeholder to have at least one of three attributes (power, legitimacy, and/or urgency; Mitchell et al 1997) to assert the stakeholder’s claim. Power is defined as the ability to influence the organization or goal (power is transitory and can be acquired or lost). Urgency reflects the degree to which the stakeholder claim calls for immediate attention. And legitimacy refers to the nature of the relationship to the organization or goal.

Stakeholder analysis, engagement, focus group – Conceptual Framework Suggested by Mitchell et al. (1997).
Once the stakeholders were identified, engagement was sought and communication avenues were set up for the project. Implementation requires information to be delivered to specific destinations via communication/feedback channels that can influence the success of the activities within an organizational structure and culture. (NIRN: Implementation Research). The chronological set of stakeholder analysis and engagement at Parkwood occurred as follows:

Rehabilitation SCI PT Locomotion OM Stakeholder Analysis, Identification and Engagement

**WG general discussion on June: 6 PTs, 2 Researchers and RA in attendance.**

<table>
<thead>
<tr>
<th>Agenda item 2: POMSCI WG stakeholder analysis</th>
<th>Presenter: Researcher</th>
</tr>
</thead>
</table>

**Discussion:** Important to have multiple stakeholders in order to have input of various viewpoints, a common goal and support to overcome potential obstacles to successful BPI: SCI PT team (All), Administration, Consumer, OT, Researchers, Nursing.

**Conclusions:** Definitive stakeholder attributes include power, influence and urgency.

**WG finalization of Focus Group membership on July: 4 PTs, 1 UWO PT program rep, 1 outpatient, 2 Researchers and RA in attendance.**

<table>
<thead>
<tr>
<th>Agenda item 1: Focus Group finalization</th>
</tr>
</thead>
</table>

**Discussion:** Family and inpatients are not yet represented in the focus group. Copy OTs and other FG members on e-mails.

**Conclusions:** Determine family member and inpatient for participation in the FG. Introductory email should be sent to the FG in the next few days (waiting for finalization of group).

**Final WG membership:**

- Key stakeholders influenced OM selection for PT training and practice prior to OM implementation into routine clinical practice.
- Met 5 times over 6 months – meetings minuted.

**Working Group PUL chart:**
<table>
<thead>
<tr>
<th>Working Group/Rep</th>
<th>Role</th>
<th>Power</th>
<th>Urgency</th>
<th>Legitimacy</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT1</td>
<td>CI-Clinical</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Senior PT – Primary project champion</td>
</tr>
<tr>
<td>PT2</td>
<td>WG</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Senior PT</td>
</tr>
<tr>
<td>PT3</td>
<td>WG</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Senior PT</td>
</tr>
<tr>
<td>PT4</td>
<td>WG</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Junior PT</td>
</tr>
<tr>
<td>PT5</td>
<td>WG</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Senior PT</td>
</tr>
<tr>
<td>PT6</td>
<td>WG</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Junior PT</td>
</tr>
<tr>
<td>PT/Adm</td>
<td>WG</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Senior PT / Administration (Professional Practice Leader)</td>
</tr>
<tr>
<td>OT1</td>
<td>WG</td>
<td></td>
<td>✓</td>
<td></td>
<td>Need to understand shared goals for common patients</td>
</tr>
<tr>
<td>Researcher</td>
<td>CI-Science</td>
<td></td>
<td>✓</td>
<td></td>
<td>Evidence-based OM to be coordinated with clinical peers</td>
</tr>
<tr>
<td>Researcher</td>
<td>CI-Implementation</td>
<td></td>
<td>✓</td>
<td></td>
<td>To maximize implementation success</td>
</tr>
<tr>
<td>Administrator</td>
<td>WG</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>Standardized OM more efficient for productivity reporting but competing priorities may not elicit urgency</td>
</tr>
<tr>
<td>Nursing</td>
<td>FG/WG alternating</td>
<td></td>
<td>✓</td>
<td></td>
<td>Need to understand shared goals for common patients</td>
</tr>
<tr>
<td>Patient</td>
<td>WG</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>Need to understand utility of OM for max compliance</td>
</tr>
<tr>
<td>UWO PT program</td>
<td>WG</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>Understanding evolution of clinical practice &amp; education</td>
</tr>
</tbody>
</table>

**Final Advisory Group (AG) membership:**

- Not all stakeholders could commit to the time required to participate in the WG and in an effort to keep all stakeholders informed and engaged, non WG members were included in the AG.
- AG members received all communications from WG and provided observational feedback regarding OM selection and implementation.
- Met pre and post implementation – meetings recorded.
Advisory Group PUL chart:

<table>
<thead>
<tr>
<th>Advisory Group/Rep</th>
<th>Role</th>
<th>Power</th>
<th>Urgency</th>
<th>Legitimacy</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT1</td>
<td>CI-Clinical</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Senior PT – Primary project champion</td>
</tr>
<tr>
<td>PT/Adm</td>
<td>WG</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Senior PT / Administration (Professional Practice Leader)</td>
</tr>
<tr>
<td>Researcher</td>
<td>CI-Science</td>
<td></td>
<td>✓</td>
<td></td>
<td>Evidence-based OM to be coordinated with clinical peers</td>
</tr>
<tr>
<td>Researcher</td>
<td>CI-Implementation</td>
<td></td>
<td>✓</td>
<td></td>
<td>To maximize implementation success</td>
</tr>
<tr>
<td>Administrator</td>
<td>FG</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>Standardized OM more efficient for productivity reporting but competing priorities may not elicit urgency</td>
</tr>
<tr>
<td>Physiatrist</td>
<td>FG</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>Not available for WG</td>
</tr>
<tr>
<td>Nursing</td>
<td>FG/WG alternating</td>
<td></td>
<td>✓</td>
<td></td>
<td>Need to understand shared goals for common patients</td>
</tr>
<tr>
<td>Patient</td>
<td>FG</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>Need to understand utility of OM for max compliance</td>
</tr>
<tr>
<td>WSIB (declined participation)</td>
<td>FG</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>Standardized OM important for return to work issues</td>
</tr>
<tr>
<td>Therapeutic Recreation</td>
<td>FG</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>Need to understand shared goals for common patients</td>
</tr>
</tbody>
</table>

Advisory group activities:
- Ninety minute meetings.
- Group selection methods documented in the methods.
- Group composition is for highly representative individuals within the sphere of influence of the Parkwood SCI PT members.
- Members included a variety of stakeholders with “power relationships” as even as possible and all members will be provided with all documented project communications.
- Groups are conducted with two evaluators: 1) one to ask the questions and 2) to record discussions/observations of group behaviour.

Facilitator activities:
- Researchers conducted the evaluation of outcome measure best practice implementation within the Parkwood SCI PT program.
- Main goal: provided information and guidance for SCI PT members to fine-tune and improve ongoing maximization of SCI PT rehabilitation.
- All information collected is confidential.
- Evaluation will include a written study report to be shared with all those within the sphere of influence of the Parkwood SCI PT members.
Advisory Group Questions

1. Describe your impression of the ability of this project to review the literature evidence base for outcome measures used in SCI (gait, wheelchair mobility, posture/balance, quality of life).

2. Did this project do a good job of comparing existing PT OM practices to those being implemented?

3. Was there sufficient stakeholder analysis and attempts to ensure engagement from as wide a spectrum as possible within the relevant sphere of influence?

4. Did this project undertake to adequately assist with new knowledge acquisition?

5. Did this project undertake to adequately assist with behaviour change to implement new best practices.

6. What did this project do well in order to maximize BPI and behaviour change?

7. What did this project NOT do well in order to maximize BPI and behaviour change?

8. Is there anything else you would like to share with us?

WG discussions on July: 5 PTs, 1 OT, 1 Nurse Specialist, 1 UWO PT program rep, 1 outpatient, 2 Researchers and RA in attendance.

**Agenda item 1:** Advisory Group finalization

**Discussion:** Need to finalize AG. Ask BC and JC.

**Conclusions:** Once group is finalized, set meeting.

WG discussions on December: 3 PTs, 1 Nurse Specialist/Manager, 1 UWO PT program rep, 1 outpatient, and 2 Researchers attendance.

**Agenda item 1:** Focus Group finalization

**Discussion:** Final group: 1) TRS, 2) Nursing, 3) administration, 4) 5) current patient, 6) Physiatrist. WSIB declined participation. CCAC representation was discussed but logistical considerations and feasibility of identification of the right individual precludes meaningful engagement.

**Conclusions:** Group has now been finalized and will be contacted for first meeting to occur before official start of implementation.

Evaluation occurs typically towards the latter part of the implementation process. However, consideration for evaluative performance indicators should occur prior to the evaluative phase. In an attempt to preclude exclusion a priori, engagement of stakeholders throughout the study is another dimension of success of the implementation efforts. Engagement can be quantified through attendance and level of participation as would be revealed through analysis of WG and AG meetings and can inform future implementation activities (i.e. type, timing and frequency of engagement and communication strategies to improve success rate.)
Assessment of barriers and facilitators to knowledge uptake and use is essential to initiating and sustaining the knowledge to action cycle. Underlying these concepts is the need to adapt to the local context to ensure that the local clinical and organizational cultures are supported of the intended practice change. An environmental assessment also serves to maximize communication of a common goal amongst the many interrelated stakeholders of a complex organization. The Parkwood study environmental assessment results follow below:

### POMSCI: Rehabilitation Physiotherapy Outcome Measures for SCI Best Practice Implementation Pilot Project

<table>
<thead>
<tr>
<th>Domain</th>
<th>Issue</th>
<th>Implementation Facilitators (IF)</th>
<th>Implementation Barriers (IB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institution/Program</td>
<td>SCI Rehab Program Goal: enable the patient to reach an optimal level of functioning to reintegrate into the community.</td>
<td>i. Affiliation and geographical proximity to Research Program</td>
<td>i. Limited implementation science expertise.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Active SCI research group</td>
<td></td>
</tr>
<tr>
<td>Administration/Leadership</td>
<td>Reporting on program outcomes is limited by generalized metrics.</td>
<td>iii. Clinically embedded SCI researcher.</td>
<td>ii. Competing interests and lack of funding for research.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iv. Supportive of BPI initiatives</td>
<td></td>
</tr>
<tr>
<td>Target Group: Physical Therapists</td>
<td>Therapists are constrained with respect to knowledge of OMs and specificity to target population.</td>
<td>v. PTs include both Jr and Sr therapists with a keen interest in Best Practices, and especially evidence-based outcome measurement. SCIRE OM chapter and OM Toolkit are readily available resources for surveying the evidence base and assessing relevant OMs.</td>
<td>iii. Competing interests with regard to best practices for implementation. iv. Workload capacity v. Lack of continuing education opportunities</td>
</tr>
</tbody>
</table>
Environmental Assessment Summary: This pilot project will move forward with the support of the institution/program/administration/leadership based on the need to embrace best practice implementation initiatives and the keen interest shown from the Physical Therapists and the SCI Research Group (i.e. champions). Although an ONF grant application was unsuccessful, Parkwood’s selection as a Centre of Excellence for the RHI-ONF KMN, some funds and in-kind contributions from the SCI research group combined with participant enthusiasm will get the project started while additional funding is sought. This scenario is not ideal to ensure success but reflects a common problem. However, the intangible value of enthusiastic and engaged champions (i.e. IF v. & vii.) should not be underestimated. For example, limited research funding was selectively spent on importing implementation science expertise to guide the project while staff enthusiasm, supportive administration and engaged champions willingly participated without additional compensation. Selecting champions for each selected OM not only provided a sense of ownership for each participant but also provided a showcase of professional competence between colleagues.

Metrics arising from the environment assessment at this rehabilitation site include funding and resource adequacy that can be correlated with study success during the later evaluative phase. Unfortunately, metrics such as long term program performance indicators are not feasible for this shorter term pilot study (i.e. also related to funding availability for this study).
It is now common knowledge that passive dissemination of information is ineffective towards practice change and is reflected in the numerous published best practice guidelines versus the number of health care institutions capable of claiming adherence to those best practices. A systematic review of implementation strategies (Bero et al, 1998) found that 4 implementation strategies were consistently effective: 1) educational outreach visits (for prescribing); 2) reminders; 3) multifaceted interventions (combining 2 or more of audit/feedback, reminders, local consensus processes or marketing); and 4) interactive educational meetings such as workshops with discussion and practice. This project heeded this evidence and planned a multifaceted implementation strategy as follows:

### POMSCI: Rehabilitation Physiotherapy Outcome Measures for SCI Best Practice Implementation Pilot Project

<table>
<thead>
<tr>
<th>Implementation Strategies for Implementation Pilot Project</th>
<th>Strategy</th>
<th>Type</th>
<th>Participants (primary, secondary)</th>
<th>Details</th>
</tr>
</thead>
</table>
| Facilitated working group (WG) meetings | 1) Audit 2) Feedback 3) Local consensus 4) Reminders 5) Educational materials. | PTs, allied health/disciplines, patients, administrators. | • Introduction to best practice implementation.  
• Review and identification of best practice in outcome measurement.  
• Customizing OM best practice to local practice and patient population.  
• Meetings are interactive. |
| Facilitated focus group (FG) meetings | 1) Identified champions 2) Peer support 3) Audit 4) Feedback 5) Reminders 6) Marketing | Allied health/disciplines, patients, administrators, PTs. | • Focus groups copied on all WG meeting communications.  
• Focus group sessions for discussion and feedback to WG.  
• Meetings are interactive |
| PT presentations for training activities | 1) Audit 2) Feedback 3) Reminders 4) Marketing | PTs, allied health/disciplines, patients, administrators. | • PTs chosen to champion a selected OM and manage the training/practice during the pre-implementation period.  
• PT presentations to each other and the larger group provide opportunities for support, feedback, marketing and reminders for the project. |
<table>
<thead>
<tr>
<th>Preformatted and integrated forms</th>
<th>1) Reminders</th>
<th>2) Marketing</th>
<th>PTs, allied health/disciplines</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Having preformatted forms for selected OM: integrated into patient charts will ensure new knowledge use, uptake and sustained knowledge use.</td>
<td>• Preformatted, integrated forms will provide allied health/disciplines the opportunity to observe and support an ongoing implementation project.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pre-planned chart audits</th>
<th>1) Audit</th>
<th>2) Feedback</th>
<th>3) Reminders</th>
<th>PTs, administrators.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Knowledge of planned audits will support ongoing implementation efforts.</td>
<td>• Audit data will provide new performance metric for administrative reporting.</td>
<td>• Continued administrative reporting activities will trigger ongoing audits that may serve as feedback and reminders for sustained knowledge use.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project presentation at patient events</th>
<th>1) Feedback</th>
<th>2) Marketing</th>
<th>3) Outreach</th>
<th>4) Patient-mediated</th>
<th>PTs, allied health/disciplines, patients, administrators.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Marketing to patients will foster support and cooperation.</td>
<td>• Marketing improvement activities to elevate program profile in the municipal, discipline and patient communities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Linkage with peer institutions</th>
<th>1) Audit</th>
<th>2) Feedback</th>
<th>3) Marketing</th>
<th>4) Outreach</th>
<th>PTs, allied health/disciplines, administrators.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Comparing similar activities (presentation at intra-provincial meetings) will provide opportunities for audit, feedback and marketing.</td>
<td>• Linkages with peer institutions provide outreach opportunities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Collection of clinical behaviour data</th>
<th>1) Audit</th>
<th>2) Feedback</th>
<th>3) Marketing</th>
<th>4) Educational materials.</th>
<th>PTs, allied health/disciplines, administrators.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Levels of Use, Stages of Concern, and Level of Confidence measures will inform PTs and administrators regarding future PT implementation projects and the same in other disciplines.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Analysis of attendance, events, frequency, timing of various strategies will assist in the program’s evaluation and inform future implementation initiatives.
STEP 5: EVALUATING YOUR IMPLEMENTATION PROJECT

As reiterated throughout this case study, consideration for performance indicators purposes should begin very early in the study even though the evaluation may not take place until the end of the study. Evaluation should be performed on multiple levels related to the stakeholders involved. At a minimum, evaluation should occur for the intervention itself and also for the implementation process. Well resourced, longer term studies should also consider programmatic performance indicators such as economical and health outcomes. Shorter term programmatic indicators may be gleaned from attendance and participation data. Below are the performance indicators that will be used to judge the success of the Parkwood study:

POMSCI: Rehabilitation Physiotherapy Outcome Measures for SCI Best Practice Implementation Pilot Project

Case Study: Summary of key performance indicators and measures (please refer to the appended SCI OM Toolkit Case Study for full spectrum of sample data forms):

i. Implementation outcomes: The aim of the study was to standardize mobility related outcome measurement amongst the SCI physiotherapist treating SCI patients. In order to see an improvement in this performance indicator, the following performance measures were chosen:
   • Context - Training
     ✓ Target audience(s) – PTs, other stakeholders
     ✓ Process – meetings, resources, inservice events, practice sessions, etc.
   • Compliance – Attendance, Level of Use scale.
     ✓ Target audience(s) – PTs,
     ✓ Process – meetings, resources, communication/feedback
   • Competence – Stages of Concern and Level of Confidence Scales.
     ✓ Target audience(s) – PTs,
     ✓ Process – meetings, resources, communication/feedback

ii. Intervention outcomes: The aim of the study was to standardize mobility related outcome measurement amongst the SCI physiotherapists treating patients with SCI. In order to see an impact of this performance indicator, the following performance measures were chosen:
   • Target audience(s)
     ✓ PTs – Chart Audits to document utilization and incorporation of selected mobility outcome measures.
     ✓ Other Stakeholders (decision makers) – attendance at study and advisory meeting(s)
# Implementation Pilot Project Evaluation

<table>
<thead>
<tr>
<th>Level</th>
<th>Performance Measure/Indicator</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation</td>
<td>The aim of the study was to standardize locomotion related outcome measurement amongst the SCI physiotherapist treating SCI patients. In order to see an improvement in this performance indicator, the following performance measures were chosen:</td>
<td>The status of the performance indicator will be described as follows:</td>
</tr>
<tr>
<td>Outcome(s)</td>
<td>• Context – Engagement and training</td>
<td>• Context – Engagement and training</td>
</tr>
<tr>
<td></td>
<td>o Target audience(s) – PTs, other stakeholders</td>
<td>o Engagement – simple statistical representation</td>
</tr>
<tr>
<td></td>
<td>o Process – meetings, resources, inservice events, practice sessions, etc.</td>
<td>o Training - Itemization and description</td>
</tr>
<tr>
<td></td>
<td>• Compliance – Attendance, Level of Use scale.</td>
<td>• Compliance –</td>
</tr>
<tr>
<td></td>
<td>o Target audience(s) – PTs,</td>
<td>o % compliance</td>
</tr>
<tr>
<td></td>
<td>o Process – meetings, resources, communication/feedback</td>
<td>• Competence –</td>
</tr>
<tr>
<td></td>
<td>• Competence – Stages of Concern and Level of Confidence Scales.</td>
<td>o % pre-post increase</td>
</tr>
<tr>
<td></td>
<td>o Target audience(s) – PTs,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Process – meetings, resources, communication/feedback</td>
<td></td>
</tr>
<tr>
<td>Intervention</td>
<td>The aim of the study was to standardize locomotion related outcome measurement amongst the SCI physiotherapists treating patients with SCI. In order to see an impact of this performance indicator, the following performance measures were chosen:</td>
<td>The status of the impact of this performance indicator will be described as follows:</td>
</tr>
<tr>
<td>Outcome(s)</td>
<td>• Target audience(s)</td>
<td>• PT % pre-post increase OM utilization</td>
</tr>
<tr>
<td></td>
<td>o PTs – Chart Audits to document utilization and incorporation of selected mobility outcome measures.</td>
<td>o Decision-maker attendance at study and advisory meeting(s)</td>
</tr>
<tr>
<td></td>
<td>o Other Stakeholders (decision makers) – attendance at study and advisory meeting(s)</td>
<td></td>
</tr>
</tbody>
</table>
### Patient Outcomes

<table>
<thead>
<tr>
<th>Patient Outcomes</th>
<th>N/A for short-term pilot project</th>
</tr>
</thead>
</table>

Although outside the scope of this pilot implementation project, patient outcome performance measures could include:
- Pre-post patient global impression likert scale to indicate level of comprehension/appreciation for standardization of locomotion outcome measures in assessment of locomotion goal attainment.
- Pre-post clinician global impression likert scale to indicate level of comprehension/appreciation for standardization of locomotion outcome measures in assessment of locomotion goal attainment.

Example performance indicator: Standardization of locomotion outcome measures will result in clear locomotion goal setting and an increased rate of locomotion goal attainment and patient/clinician satisfaction within current rehabilitation length of stays.

### Administrative Outcomes (i.e. programmatic efficiencies)

<table>
<thead>
<tr>
<th>Administrative Outcomes (i.e. programmatic efficiencies)</th>
<th>N/A for short-term pilot project</th>
</tr>
</thead>
</table>

Although outside the scope of this pilot implementation project, administrative outcome performance measures could include:
- Pre-post patient global impression likert scale to indicate level of comprehension/appreciation for standardization of locomotion outcome measures in assessment of locomotion goal attainment.
- Pre-post clinician global impression likert scale to indicate level of comprehension/appreciation for standardization of locomotion outcome measures in assessment of locomotion goal attainment.
- % pre-post locomotion goal attainment
- Ratio of locomotion goal attainment/LoS

Example performance indicator: Standardization of locomotion outcome measures will result in maximizing resource utilization and redistribution (staffing, equipment) to increase the rate of locomotion goal attainment within current rehabilitation length of stays.
This study is currently ongoing and detailed evaluation results will be presented in future updates. Preliminary evaluation trends are as follows:

1. The study is moving towards implementation success as indicated by the pre-selected performance indicator and measures. The performance indicator (i.e. Maximization of standardized locomotion related outcome measurement amongst the SCI physiotherapists treating SCI patients by engaging the full spectrum of stakeholders that will affect and be affected by this activity) will be measured by collecting the following data:
   - Engagement (All Stakeholders): 88% (7/8) of identified stakeholder groups participated in this study.
   - Engagement (PTs): Although all PT participants could not attend all working group meetings, 100% participated in knowledge acquisition activities (reading, training and practice) during the pre-implementation phase.
   - The key to engagement is the identification of champions. Not only did this implementation project have an identified champion, additional champions were identified to lead the knowledge acquisition activities for each selected OM.
   - Additionally, the academic stakeholder representative also participated in knowledge acquisition activities in consideration of programmatic bridging with the local PT school.

2. Another indicator of implementation success is to be evaluated by measuring compliance levels for reading, training and practice of use of the selected OMs and that there would be a subsequent increase in level of use/concern/confidence for the use of the selected OMs. These are antecedents and indicators of behavior change.
   - Again, although early in the study, indications reflect a high likelihood of success given that study participants exhibited 100% compliance with reading, training and practice.

3. Subsequent to compliance, competence as measured by level of use, stages of concern, and level of confidence in OM use reflects another dimension of implementation success. Level of engagement, knowledge acquisition, level of use, stages of concern and level of confidence measures provide insight into changes seen in practice behaviours:
   - Newly implemented OM (e.g. ABC)
     - Not only did confidence increase, but concern for use increased from general awareness to focusing on optimizing administration.
     - Level of use increase from simple consideration of the OM to looking for ways to improve patient outcomes while using the OM.
   - Refamiliarization of an existing OM (i.e. TUG)
     - While confidence was already maximized, concern for use further evolved to focusing on the impact of the use of the OM. In other cases (i.e., Berg) this did not occur.
     - In a few cases, the level of use received new enthusiasm as reflected in a change from using the OM “without much conscious thought” to “to improve practices outcomes or meet common objectives with colleagues or comparing to similar OMs”.

Page 47
Level of Use Scale

Stages of Concern Scale

* p < 0.05, ** p < 0.01, *** p < 1.001
4. Data collection for the impact of the intervention (i.e. maximization of standardized SCI mobility outcome measures used in clinical practice) are being collected through chart audits to document OM use pre- and post- implementation.

- Before the study began, intermittent and often incomplete use of Berg and SCI-FAI were observed. Although the intervention is not yet complete, chart audits are already showing improved completion of the Berg and SCI-FAI.
- During the Pre-implementation phase (knowledge acquisition phase), new consistent use of selected OMs is being observed for patients undergoing mobility rehabilitation.
- In addition to the knowledge acquisition activities, key to this trend is the insertion of OM forms into the clinical chart to serve as reminders and provide a simple format to follow.
APPENDIX A.1: REVIEW OF EVIDENCE BASE FOR OUTCOME MEASURES USED IN SCI

See attached Mobility OM section of SCIRE OM Toolkit booklet
## APPENDIX A.2: TRAINING FOR SELECTED OUTCOME MEASURES

<table>
<thead>
<tr>
<th>Measure</th>
<th>In/Out</th>
<th>Training</th>
<th>Champion</th>
<th>Timing of Ax</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCI-FAI</td>
<td>Yes - Inpt &amp; Outpt</td>
<td>Longer</td>
<td>PT4</td>
<td>Admission &amp; D/C</td>
<td>able to ambulate with supervision</td>
</tr>
<tr>
<td>6 Min Walk</td>
<td>Yes - Inpt &amp; Outpt</td>
<td>Quick</td>
<td>PT2</td>
<td>Admission &amp; D/C</td>
<td>able to ambulate with supervision</td>
</tr>
<tr>
<td>10 Metre walk</td>
<td>Yes - Inpt &amp; Outpt</td>
<td>Quick</td>
<td>PT2</td>
<td>Admission &amp; D/C</td>
<td>able to ambulate with supervision</td>
</tr>
<tr>
<td>SCIM-Locomotion</td>
<td>Yes - Inpt, some Outpt</td>
<td>Longer</td>
<td>PT1</td>
<td>Admission &amp; D/C</td>
<td>any level</td>
</tr>
<tr>
<td>TUG</td>
<td>Yes - Inpt &amp; Outpt</td>
<td>Quick</td>
<td>PT2</td>
<td>Admission &amp; D/C</td>
<td>able to ambulate with supervision</td>
</tr>
<tr>
<td>Berg</td>
<td>Yes - Inpt &amp; Outpt</td>
<td>Quick</td>
<td>PT1</td>
<td>Admission &amp; D/C</td>
<td>at least some sitting balance, ideally able to stand</td>
</tr>
<tr>
<td>CB &amp; M</td>
<td>Yes - Outpt, some Inpt</td>
<td>Medium</td>
<td>PT5</td>
<td>as required</td>
<td>for high level patients, able to stand on one leg</td>
</tr>
<tr>
<td>BESTest</td>
<td>Yes - Inpt &amp; Outpt</td>
<td>Longer</td>
<td>PT5</td>
<td>TBD</td>
<td>need to purchase DVD for training and get incline ramp</td>
</tr>
<tr>
<td>ABC</td>
<td>Yes - Outpt, some Inpt</td>
<td>Quick</td>
<td>PT3</td>
<td>Admission &amp; D/C prep</td>
<td>ambulatory, fall risk</td>
</tr>
<tr>
<td>HiMat</td>
<td>No</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Suggested that a summary chart of the measures would be helpful to cue therapists and keep track of what was done and make data collection easier. For outpt's measures could also be collected during a progress assessment.

*Need a sheet with the following measures - SCI-FAI, 6 Min walk, 10 m walk, TUG and ABC combined, then have separate forms for the other measures.
### Appendix A.3: Sample of reading, training, and practice logs to measure knowledge acquisition

**POMSCI: Rehabilitation Physiotherapy Outcome Measures for SCI Best Practice Implementation Pilot Project**

<table>
<thead>
<tr>
<th>Information sources and reading log:</th>
<th>Source (Author/Year/Title): K=key; B=background; O=Other</th>
<th>Date (yyyy-mm-dd)</th>
<th>Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>6 minute WT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>10 meter WT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2 minute WT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SCI-FAI</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TUG</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>COVS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>E-FAP</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TMT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**POMSCI: Rehabilitation Physiotherapy Outcome Measures for SCI Best Practice Implementation Pilot Project**

<table>
<thead>
<tr>
<th>Outcome Measure</th>
<th>Instructor</th>
<th>Training time (m)</th>
<th>Practice time (m)</th>
<th>Date (yyyy-mm-dd)</th>
<th>Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 minute WT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 meter WT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 minute WT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCI-FAI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TUG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCIM-mobility (0-17)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Berg Balance Scale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BESTest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Appendix A.4: Sample Levels of Use & Stages of Concern Scales

**POMSCI: Rehabilitation Physiotherapy Outcome Measures for SCI Best Practice Implementation Pilot Project**

Regarding 1) use and 2) concern for each selected outcome measure, please indicate the statement that best reflects your current status.

Date: _______________ yyyy-mm-dd

1) **Level of Use** of [outcome measure] (Select one statement only):

<table>
<thead>
<tr>
<th>Statement</th>
<th>Date: _______________ yyyy-mm-dd</th>
</tr>
</thead>
<tbody>
<tr>
<td>I really don't know anything about the <strong>10 meter WT</strong>, or am not sure that it would be useful in my clinical practice</td>
<td></td>
</tr>
<tr>
<td>I have some information about <strong>10 meter WT</strong>, and am considering whether it might be useful in my clinical practice</td>
<td></td>
</tr>
<tr>
<td>I now know enough about <strong>10 meter WT</strong>, that I am preparing to use it in my clinical practice</td>
<td></td>
</tr>
<tr>
<td>I am using <strong>10 meter WT</strong>, now and am primarily focused on learning the skills necessary to use it properly and effectively in my clinical practice</td>
<td></td>
</tr>
<tr>
<td>I use <strong>10 meter WT</strong>, routinely without much conscious thought, and my use of this <strong>10 meter WT</strong> is fairly routine in my clinical practice</td>
<td></td>
</tr>
<tr>
<td>I use <strong>10 meter WT</strong>, regularly, and am implementing ways of varying its use to improve the outcomes derived in my clinical practice</td>
<td></td>
</tr>
<tr>
<td>I am collaborating with colleagues to develop ways in which we can use <strong>10 meter WT</strong> to better meet our common objectives in our clinical practice</td>
<td></td>
</tr>
<tr>
<td>I still use <strong>10 meter WT</strong>, but am exploring other outcome measures to replace it that will better meet the objectives in my clinical practice</td>
<td></td>
</tr>
</tbody>
</table>

2) **Stage of Concern** regarding [outcome measure] (Select one statement only):

<table>
<thead>
<tr>
<th>Statement</th>
<th>Date: _______________ yyyy-mm-dd</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have little concern about, or involvement with <strong>10 meter WT</strong>.</td>
<td></td>
</tr>
<tr>
<td>I have general awareness and interest in learning more about <strong>10 meter WT</strong>.</td>
<td></td>
</tr>
<tr>
<td>I am uncertain about the demands of, or my ability in, administering <strong>10 meter WT</strong>.</td>
<td></td>
</tr>
<tr>
<td>I am focusing on administering [outcome measure] and the best use of associated information and resources.</td>
<td></td>
</tr>
<tr>
<td>I am focusing on the impact of administering <strong>10 meter WT</strong> to my patients and my spheres of influence.</td>
<td></td>
</tr>
<tr>
<td>I am focusing on coordination and cooperation with others involved with administering <strong>10 meter WT</strong>.</td>
<td></td>
</tr>
<tr>
<td>I am focusing on exploration of more universal benefits of administering <strong>10 meter WT</strong>, including possibility of changes or updates.</td>
<td></td>
</tr>
</tbody>
</table>
**APPENDIX A.5: SAMPLE OF SELF-EFFICACY LIKERT SCALE**

POMSCI: Rehabilitation Physiotherapy Outcome Measures for SCI Best Practice Implementation Pilot Project

Regarding your confidence in using each selected outcome measure appropriately, please indicate the statement that best reflects your current status (Check only 1 box per outcome measure).

Date: __________________ yyyy-mm-dd

1=Not at all confident; 2=Somewhat NOT confident; 3=Undecided; 4=Somewhat confident; 5=Very confident.

<table>
<thead>
<tr>
<th>Outcome Measure</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Date (yyyy-mm-dd)</th>
<th>Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 minute WT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 meter WT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 minute WT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCI-FAI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TUG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCIM-mobility (9-17)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Berg Balance Scale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BESTest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CB&amp;M</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABC</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HiMAT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QoL OMt TBD</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>