# Best Practices Day Poster Summary
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***Please note:***

- The Rapid Podium Presentation abstracts listed from p. 2 – 5 will not have posters displayed at the conference.

- The following abstracts will have posters at the conference, but could not have the content published online:
  - #6
  - #24

# Rapid Podium Abstracts

## Senior-Focused Care

**Poster Number:** (No poster will be available)

**Title:** THE SMILE PROGRAM: AN INNOVATIVE APPROACH TO PREVENTING DELIRIUM AND FUNCTIONAL DECLINE AMONG HOSPITALIZED SENIORS.

**Authors (Primary First):** Helen Schelfhaut

**Affiliation of Primary Author:** Halton Healthcare Services

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**ABSTRACT:**

**Purpose:** To improve the ability of healthcare team, including volunteers, to engage patients who are at risk of developing delirium and functional decline, and their families, in the active participation of prevention activities.

**Relevance:** Delirium and functional decline are common, costly, under-recognized and largely preventable consequences of hospitalization for seniors. Current evidence suggests that programs which partner clinical units with volunteer services result in significant reduction of delirium, functional decline, falls and healthcare costs.

**Methods & Analysis:** Volunteers were trained to perform activities with patients in the following areas: Stimulate the brain Move the body Improve hydration Limit caffeine intake Enjoy better hearing and vision SMILE is an acronym for key areas of delirium and functional decline prevention. The principles of the program were communicated to patients and their families via a brochure and recorded on an activity log which was posted in the patient's room. Shifts were scheduled twice daily, 7 days per week. This program was piloted on a 17 bed transitional care unit prior to being launched on a 42 bed acute medical unit.

**Study Sample or Initiative Scope:** Patients were selected by the healthcare team based on their risk profile to participate in activities with volunteers on a shift by shift basis.

**Findings:** The program achieved high levels of satisfaction for staff, volunteers, families and patients. It is in high demand across multiple programs in the corporation. The program has driven the collection of metrics on delirium, and highlighted the need to evaluate functional decline in future. A snapshot of delirium prevalence on the medical unit was recorded at 26% prior to implementing the program and this scan will be repeated in March, 2015.

**Discussion:** Preventing delirium and functional decline can lead to substantial savings for patients/families and the healthcare system. Operating a prevention program on a large medical unit posed additional challenges related to the larger staff pool and acuity of patients. This highlighted the importance of communication, program identification and increased need for safety checks

**Conclusions:** The SMILE program is a proactive and collaborative partnership between clinical units and volunteer services to prevent delirium and functional decline in hospitalized elder patients. The program was highly successful in enhancing the patient experience, while uniting staff, families and volunteers in care.

## Senior-Focused Care

**Poster Number:** (No poster will be available)

**Title:** HOME INDEPENDENCE PROGRAM (HIP)

**Authors (Primary First):** Daniel Ball

**Affiliation of Primary Author:** CW CCAC

**Abstract Category:** Ideas, Inventions and Innovations that will Transform the Rehabilitation Mosaic

**ABSTRACT:**

**Purpose:** Growing evidence supports the need to ensure individuals are supported earlier throughout the aging process in order to prevent sudden deterioration which often results in long term (often permanent) levels of high care and high hospital admissions.

**Relevance:** The program is designed based upon a "Restorative Care Approach" which goes beyond the traditional home care goals of 'maintenance' and 'support' towards a longer term prevention focus of promoting improvements in functional status and quality of life.

**Methods & Analysis:** Literature review completed to identify leading practices in community-based restorative care programs. Elements of 3 international models were incorporated into the development of the HIP program. A prototype was initially designed and tested. Lessons learned and barriers to success were addressed prior to spread of the program across our entire region. Service provider organizations were involved in protocol development, and training of PSWs. A number of principles aligned with patient centred senior's care guided this work. A full evaluation was carried out that included clinical/system outcomes, and patient satisfaction.

**Study Sample or Initiative Scope:** 1st wave:180 clients,avg. age 79 yrs. 64% F. 2nd wave: approx. 300 clients.Patients demonstrated restorative potential, sufficient cognitive capacity.

**Findings:** Analysis of clinical outcomes revealed that mean TUG assessment scores of mobility decreased from 27.7 to 18.5 seconds. Falls data reflected approximately 47% of participants reported a fall within two months of joining the HIP Program. This fell to 6% since being enrolled in the program. Emergency room readmissions after discharge also significantly decreased from 47% to 9% after enrolling in the Program.97% of patients were satisfied with the Program.

**Discussion:** Aligns with newly released Assess and Restore guidelines and could inform best practice guidelines for a point of entry care model for community dwelling patients. Effectively reduces care costs per patient to one third of traditional model annually. Patient independence is maximized. ED visits and falls-related admissions reduced.

**Conclusions:** HIP is a "restorative" approach to care that helps seniors regain skills and confidence with Activities of Daily Living, and maximizes individuals' independence & physical well-being. HIP program resulted in statistically significant improvement in: mobility; falls; ED visits; patient satisfaction

## Relevant Across Rehabilitation Populations

**Poster Number:** (No poster will be available)

**Title:** REAL-TIME PATIENT ADVISORY GROUPS: NOVEL OPPORTUNITIES FOR LEARNING AND IMPROVEMENT

**Authors (Primary First):** Carol Fancott

**Affiliation of Primary Author:** Toronto Rehab - UHN

**Presentation Format:** RAPID PODIUM PRESENTATION

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**ABSTRACT:**

**Purpose:** This demonstration project has implemented and evaluated the impact of 'real-time patient advisory groups', designed to better understand the patient experience of care, and to engage patients in quality and safety during their inpatient stay.

**Relevance:** Involving patients across all levels of the health system is key to transforming healthcare to be truly patient-focused. 'Real-time advisory groups' is an innovative way to bring together two key strategies for engaging with patients and families: developing patient advisory groups, and obtaining feedback in real-time.

**Methods & Analysis:** Developmental evaluation using mixed methods to assess both the processes of engagement and the outcomes of these real-time groups has been completed using surveys, interviews, and focus groups with patients, unit staff and leadership. Descriptive statistics of survey data, and thematic analysis of interviews and focus groups have been conducted. Ideas generated in these groups, as well as improvements initiated and completed as a result of feedback, have been documented and tracked to determine output of these groups, and to ensure accountabilities.

**Study Sample or Initiative Scope:** Approximately 45% of patients involved in the groups and 40% of staff have participated in evaluating these groups.

**Findings:** Patients report that these groups are a valuable way to foster peer support and provide a venue for sharing experiences. The role of facilitator is key to creating a safe environment in which patients can openly discuss their care experiences while in hospital. Staff are keen to hear patient feedback, and are engaged in improvement opportunities. Leadership has also been key to model behaviours that support engagement of patients.

**Discussion:** These real-time patient groups offer an informal yet structured setting for support and learning to discuss topics of relevance related to their experience of care. Responsiveness to feedback and accountability for actions has been paramount as an explicit expression of partnerships that are being developed and fostered between patients and staff.

**Conclusions:** Real-time patient advisory groups are an innovative way in which to involve patients and staff together in quality and safety. These groups help to identify current opportunities for improvement to both enhance the patient experience of care and develop a culture of partnership and engagement.

## Spinal Cord Injury

**Poster Number:** (No poster will be available)

**Title:** ENHANCING INTER-PROFESSIONAL COLLABORATION DURING TEAM ROUNDS THROUGH THE IMPLEMENTATION OF SELF-MANAGEMENT SUPPORT TOOLS IN SCI REHABILITATION

**Authors (Primary First):** Sandra Mills

**Affiliation of Primary Author:** UHN TR Brain and Spinal Cord Rehabiliation Program

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**ABSTRACT:**

**Purpose:** To develop collaborative, inter-professional rounds in SCI rehab as part of an initiative to develop self-management supports: grounded in SCI domains; focused on enhanced patient involvement in identifying priorities, needs, and learning styles.

**Relevance:** Team discussion during rounds that is structured by domains of SCI rehabilitation rather than by profession facilitates enhanced inter-professional communication and collaboration and fosters patient-centeredness. This format is transferable to other clinical settings with a wide variety of patient populations.

**Methods & Analysis:** In 2011, a goal setting audit, comprehensive literature review and benchmarking were conducted to identify best practice. A new rounds form and standardized process were developed to support the evolution of team rounds towards a more inter-professional, patient-as-partners model. A pilot study of the rounds form and team process were completed followed by evaluation and staff feedback. Evaluation findings were incorporated prior to program wide roll-out of SCI rehab domains and team rounds documentation . Documentation audit of rounds forms were completed to evaluate staff uptake of new processes and tools.

**Study Sample or Initiative Scope:** This project has been rolled out across all three inpatient units in a spinal cord rehab setting.

**Findings:** Moving to domain-based rounds reduced professions taking ownership of specific aspects of rehab and created a more inter-professional collaborative approach. There is greater propensity for inter-professional communication with multiple team members reporting on non-traditional rehab domains resulting in improved transition planning. The structure helps ensure that care planning is comprehensive and that patient priorities are the central focus.

**Discussion:** Shifting away from profession specific reporting in rounds enabled inter-professional teams to engage in collaborative discussions based on multiple domains of care and education. Domains based dialogue results in a more comprehensive view of the patient, their needs and priorities during inpatient rehab and through the transition to community or outpatient services.

**Conclusions:** This interprofessional process for discussing patient priorities in 25 domains facilitates a model of inter-professional collaboration and enhances the overall patient experience in SCI rehabilitation. Next steps for this project include specific rounds reporting processes focusing on achievement, issues and action plans.

## Relevant Across Rehabilitation Populations

**Poster Number:** 1

**Title:** OUTCOMES FROM INPATIENT REHABILITATION FOLLOWING TRAUMATIC BRAIN INJURY IN CANADA

**Authors (Primary First):** Anne-Michelle Martin

**Affiliation of Primary Author:** Canadian Institute for Health Information (CIHI)

**Abstract Category:** Research in Rehabilitation (quantitative, qualitative or mixed methods)

**ABSTRACT:**

**Purpose:** To describe the characteristics of and rehabilitation outcomes for TBI patients following inpatient rehabilitation (IR) using a retrospective analysis of the National Rehabilitation Reporting System (NRS).

**Relevance:** CIHI's large, linked and pan-Canadian dataset permits an unparalleled description of clients receiving IR following TBI in terms of both pre- and post-rehabilitation characteristics and outcomes. Such descriptions offer insight into this population and help guide planning and practice at the facility/unit and system levels.

**Methods & Analysis:** Using data from CIHI-NRS, client characteristics and IR outcomes will be described for patients grouped based on their designated Rehabilitation Patient Group (RPG) which uses admission function scores (assessed using the FIM® instrument and includes motor and cognitive scores) at admission and discharge to predict the relative resource intensity of clients in the same diagnostic category. For the purpose of this analysis, clients were divided into three groups: most resource intensive, moderately resource intensive and least resource intensive.

**Study Sample or Initiative Scope:** TBI patients reported to the NRS as having completed inpatient rehabilitation between April 1st, 2008 and March 31st, 2013, (n=4,503).

**Findings:** Wait days for admission to IR and for discharge from IR were longest in the most resource intensive group, compared to the moderate and least resource intensive group. LOS was also longest for the most resource intensive group; however, the highest function gains were seen in this group. Patients in the least resource intensive group were more likely to return to work and return home after IR.

**Discussion:** This analysis notes positive clinical outcomes in IR for even the most severely disabled patient population. Continued access to IR for these patients remains important to optimize function upon discharge from the inpatient environment. This large retrospective analysis can help to inform service planning for this population.

**Conclusions:** Results of this analysis suggest that substantial functional improvement during IR across all RPGs for clients admitted with TBI indicate that these clients benefit from IR. NRS indicators also suggest that a system management approach designed to decrease days waiting for admission would be beneficial for TBI IR patients.

## Relevant Across Rehabilitation Populations

**Poster Number:** 2

**Title:** INTER-PROFESSIONAL COLLABORATION IN DEVELOPING BEST PRACTICES FOR BARIATRIC CLIENT CARE

**Authors (Primary First):** Lynn Roberti

**Affiliation of Primary Author:** Trillium Health Partners

**Abstract Category:** Knowledge Transfer and Exchange Initiative

**ABSTRACT:**

**Purpose:** To demonstrate improved Bariatric care in the rehabilitation and acute setting through inter-professional collaboration, clinical expertise, environmental and equipment modification, and partnership with clients to standardize Bariatric care.

**Relevance:** This case study helped develop standards and processes for Bariatric care. To facilitate best clinical care, equipment and staffing resources required were identified and implemented. The results revealed the complexity of Bariatric care with collaboration and innovation required to achieve goals for successful discharge.

**Methods & Analysis:** Methods: The rehabilitation team liaised with experts from outside of the traditional team to address infection control practices, staff and client safety, wound care and the unique needs of the client to develop best practices for Bariatric care to attain quality and safety. Principles: Complex client-centered challenges were solved with clinical innovation, trial and error methodology. Analysis: Outcome measures were evaluated using the Functional Independence Measure (FIM), weight and wound care measurement, functional client centered goal attainment, and client self- efficacy reporting.

**Study Sample or Initiative Scope:** Improve Bariatric care by the development of care plans and clinical protocols to provide treatment standards, resources, and equipment required.

**Findings:** Included over 60lbs. weight loss and healing of leg ulcers present for 17 years. Client improved from mechanical lift to independent transfers. Self-care independence improved from dependent to supervision. FIM score improvement of 35 points achieved. Lessons learned included the need to expand Bariatric equipment purchase. Staffing increase to assist nursing realized. Inter-professional collaboration was essential to achieve client goals.

**Discussion:** Findings support the need to develop clinical expertise and Bariatric treatment standards. Additional staffing and equipment are needed to mitigate injury. Inter-professional collaboration and critical thinking methods are intrinsic to goal attainment. Additional costs outweighed the potential increased length of stay and improved quality of life to prevent readmission.

**Conclusions:** The additional costs for staffing, equipment and resources are necessary to effectively treat Bariatric clients. Inter-professional collaboration and clinical expertise is critical for successful outcomes. Improved functional independence and self-efficacy show the importance and value of standardized Bariatric programming.

## Senior-Focused Care

**Poster Number:** 3

**Title:** IS THERE AN APP FOR THAT? IDENTIFYING RESTORATIVE POTENTIAL THROUGH RISK SCREENING, ASSESSMENT AND EARLY INTERVENTION IN GERIATRIC SYNDROMES FOR FRAIL ELDERS PRESENTING TO THE ED.

**Authors (Primary First):** Nancy Snobelen

**Affiliation of Primary Author:** Chatham-Kent Health Alliance

**Abstract Category:** Ideas, Inventions and Innovations that will Transform the Rehabilitation Mosaic

**ABSTRACT:**

**Purpose:** To develop,test & spread regionally the Erie-St. Clair LHIN Rehabilitation Network Geriatric Care pathway which uses risk screening, assessment for restorative potential and early intervention for frail elders at Chatham-Kent Health Alliance (CKHA)

**Relevance:** The Ontario Senior Strategy outlined an Assess & Restore framework. RCA identified ''bedded'' programs needed to support seniors with functional decline & restorative potential. The Assessment Urgency Algorithm (AUA) is an evidence-based screening tool to link to assessment services & rehabilitative care programs.

**Methods & Analysis:** CKHA and the ESCLHIN Rehabilitation Network qualified for Ontario's quality improvement leadership program, Improving & Driving Excellence Across Sectors (IDEAS). By using methods and tools of quality improvement, adaptive leadership, and innovation we implemented the use of an electronic app of the AUA. Change management methods involved the GEM nurses teaching ED primary nurses to screen for comprehensive geriatric assessment needs and restorative potential.

**Study Sample or Initiative Scope:** Seniors (75 years and older) presenting to CKHA ED, 24 hours per day 7 days per week at the Chatham campus. Average number of patients per day = 27

**Findings:** Key findings included: 1.the AUA is a suitable tool 2.to spread & sustain the RCA ''bedded'' model of care across our region requires small demonstration pilots; 2.successfully employed innovative approaches to provide screening for our elderly patients(>74 years) 3.reduced demand for ED visits and re-visits 4.delivered improved access to specialized geriatric services that has improved patient experience and health outcomes.

**Discussion:** The AUA was validated as an appropriate and useful tool.It was feasible for the ED primary nurse to use the electronic app for screening. The AUA score helped the GEM nurse to identify restorative potential and assessment resources levels. The methods and tools provided of IDEAS assisted with the change management through small cycle implementation & innovation.

**Conclusions:** Contrary to belief, seniors access the ED appropriately. Robust and structured QI learnings assisted with implementation of an electronic application for screening seniors at high risk and identifying restorative potential.Implementing rehabiltation reduces ED visits, re-visits and premature functional decline.

# Student Abstracts

## Paediatrics

**Poster Number:** 4

**Title:** DEVELOPMENT OF A LAY RESEARCH SUMMARY OF A RANDOMISED CONTROLLED TRIAL (RCT) USING THE KNOWLEDGE TO ACTION (KTA) CYCLE

**Authors (Primary First):** Pranay Jindal; Joy MacDermid; Peter Rosenbaum; Mary Law; Amitesh Narayan

**Affiliation of Primary Author:** McMaster university

**Abstract Category:** Knowledge Transfer and Exchange Initiative

**Abstract**

**Purpose:** To help parents of children with Cerebral Palsy (CP) access and understand the findings of the research article ''Focus on function: a cluster, RCT comparing child-versus context-focused intervention for young children with CP''.

**Relevance:** RCT suggests therapies aimed to change child's functioning environment (context) or child's impairments benefit equally by increasing child's mobility and participation. Presenting these findings in lay language might facilitate parent's understanding and uptake of these research findings in their child's rehabilitation.

**Methods & Analysis:** The research team used guides for lay summaries and the KTA cycle to integrate evidence, user feedback, and the contextual issues while developing the summary. The resulted summary had visual and textual information designed to be clear and easy to read (Flesch-Kinkaid reading ease and grade were 59 and 7). To assess the user-friendliness, and the barriers to use, we surveyed the knowledge users. Flyers were posted at potential areas in the hospitals. The summary and the survey were posted online. Descriptive statistics was calculated for closed-ended questions. Common themes were identified from open-ended comments.

**Study Sample or Initiative Scope:** Parents and caregivers having children with Cerebral Palsy (N=32), the general public and graduate students (N=30) from India and Canada.

**Findings:** The survey had 62 responses in 1 month. Respondents found the summary extremely to quite easy to read and understand 81%; extremely to quite reasonable in length 69%; visuals were quite to moderately helpful 55%; and above average quality 66%. 66% parents found the summary helpful, and 60% parents thought about different treatments for CP. Parents expressed the need for more information on CP, therapies and improvement measures used in the RCT.

**Discussion:** Most responders found the summary easy to read, understand, and above average in quality. The summary was helpful, and it stimulated parents to think about different therapies for their children. Needed information (barriers for the uptake) was provided in the revised version to increase the uptake and utility of the research findings among parents and caregivers.

**Conclusions:** Information in simple language is more easily read and understood by parents and caregivers of children with CP. Easily understood information helps parents to think and make informed decisions about their child's treatment.

## Senior-Focused Care

**Poster Number:** 5

**Title:** PHYSICAL REHABILITATION IN LONG-TERM CARE: A SCOPING REVIEW OF INTERVENTIONS, MODELS OF DELIVERY, OUTCOMES AND QUALITY INDICATORS

**Authors (Primary First):** Caitlin McArthur; Lora Giangregorio; Jenna Gibbs; Katherine Berg; John Hirdes; Alexandra Papaioannou; Milligan James

**Affiliation of Primary Author:** University of Waterloo

**Abstract Category:** Systematic Literature Review

**Abstract**

**Purpose:** We have 3 main research questions: What types of rehabilitation have been evaluated for efficacy/effectiveness in long-term care? Which outcomes or quality indicators have been used for evaluation? What tools or models exist for allocation of resources.

**Relevance:** While physical rehabilitation is effective at improving function, it remains unclear which interventions and models of delivery are most appropriate, which outcomes or quality indicators can be used to evaluate services at the resident-, facility- or system-level, and what tools can be used to determine eligibility.

**Methods & Analysis:** A comprehensive literature search and grey literature search were conducted. Retrieved articles were screened by two team members using a pilot-tested form, and data was abstracted using a structured abstraction form. Results will be displayed according to the research question they address using graphs, tables, graphics. Data abstracted regarding outcomes will be mapped onto existing quality indicators used for public reporting in Ontario. Nominal group technique will be used to determine which quality indicators could be used to evaluate physical rehabilitation.

**Study Sample or Initiative Scope:** Medline,Embase,CINAHL,Cochrane Database,PEDro,and OTseeker and several relevant websites were searched. 30 stakeholders have been identified.

**Findings:** 3483 records and 16 grey literature reports were identified through database and internet searches. After duplicates were removed, 2694 records remained for screening of abstract and title. 516 full-texts and reports were screened for eligibility and 281 have been included for data abstraction. Data abstraction is currently being completed and the stakeholder consensus meeting will occur April 1st, 2015.

**Discussion:** The results of the scoping review can be used for decision-making around which interventions have evidence to support their use and how they can be evaluated at the person-, facility-, and system-level. In addition, key stakeholders will identify which quality indicators could be used in practice and research to evaluate physical rehabilitation in long-term care.

**Conclusions:** The key messages will include a characterization of what types of physical rehabilitation interventions have been evaluated, how they have been evaluated and tools used to determine eligibility for resources, and suggestions for which quality indicators could be used to evaluate physical rehabilitation in long-term care.

# Conference Abstracts

## Brain Injury / Neuro / Stroke

**Poster Number:** 6

**Title:** ENGAGING PATIENTS TO CO-DESIGN PROCESS IMPROVEMENTS IN REHABILITATION AND ACROSS THE CONTINUUM

**Authors (Primary First):** Vivien Poon

Note: Abstract summary cannot be posted on-line.

**Poster Number:** 7

**Title:** WHAT'S IN A MINUTE? ACHIEVING REHABILITATION INTENSITY IN AN INPATIENT STROKE REHAB PROGRAM

**Authors (Primary First):** Siobhan Donaghy; Jennifer Shaffer; Marie DiSotto-Monastero; Mila Bishev

**Affiliation of Primary Author:** Sunnybrook Health Sciences Centre - St. John's Rehab

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** The purpose of this initiative was to apply the Ontario Stroke Network's requirements for providing and recording sufficient rehabilitation intensity (RI) to patients in an inpatient stroke rehab program.

**Relevance:** The Ontario Stroke Network has established guidelines for Quality Based Procedures (QBP) in stroke care, and RI is a key indicator for evaluating efficiency and effectiveness. There are positive outcomes for patients who receive a minimum of 180 minutes of direct task-specific therapy daily.

**Methods & Analysis:** An interprofessional leadership team with representation from clinical professions and clinical informatics reviewed the requirements of the stroke QBP with respect to RI. A review of current state included an analysis of workload measurement data and staffing ratios in the professions of occupational therapy (OT), physiotherapy (PT) and speech language pathology (SLP). Existing therapy programs and formats were also reviewed to determine if they met the Stroke Network's definition of RI. A gap analysis was conducted, and recommendations were identified to senior management.

**Study Sample or Initiative Scope:** The interprofessional inpatient stroke rehab team, including support teams for workload measurement and the National Rehab Reporting System (NRS).

**Findings:** An analysis revealed gaps in staffing ratios required to meet the RI requirement. A review of treatment models revealed that activities such as group therapy, did not meet the definition. A need for expanded treatment space was also identified to accommodate the extra volume of daily therapy. Modifications to workload measurement would also be required, to capture the number of daily therapy minutes provided, from the patient perspective.

**Discussion:** Quality improvement initiatives have included the creation of patient care sub-teams for OT, PT and SLP, and the implementation of stroke 'huddles' to enhance communication within the broader team. As leaders in data management, we have been actively collaborating with other rehab facilities to ensure that the mandatory reporting of RI by April 2015 can be achieved.

**Conclusions:** Through continuous evaluation by clinical leaders, clinicians and support teams, we have been able to create an innovative model of care which supports appropriate rehabilitation intensity and enhanced patient outcomes, while ensuring accurate, quality reporting.

## Brain Injury / Neuro / Stroke

**Poster Number:** 8

**Title:** THE INFLUENCE OF AN OFF-UNIT WALKING GROUP ON WALKING ACTIVITY FOR THOSE WITH ACQUIRED BRAIN INJURY ATTENDING INPATIENT REHABILITATION

**Authors (Primary First):** Jennifer Kochanowski; Rosanna Cimolai; Elizabeth Inness; Avril Mansfield; Jennifer Wong

**Affiliation of Primary Author:** Toronto Rehabilitation Institute - University Health Network; Department of Physical Therapy, University of Toronto

**Abstract Category:** Research in Rehabilitation (quantitative, qualitative or mixed methods)

**Abstract**

**Purpose:** To compare walking activity during 'usual care' days to those with a group-walking program, and over the course of acquired brain injury (ABI) rehabilitation.

**Relevance:** Walking after a neurological injury is important to promote task-specific functional recovery; fitness; community mobility and overall health. Previously we found daily walking activity is low during inpatient rehabilitation. Implementing a walking group may allow patients opportunities to increase walking activity.

**Methods & Analysis:** Daily walking activity was recorded using wireless accelerometers (Gulf Coast Data Concepts, LLC) on 4 days: usual care (UC) and walking group (WG) days both at admission and discharge. Walking group consisted of up to 60 minutes of walking off of the locked ABI unit indoors or outdoors. Repeated measures analysis of variance was conducted to identify differences in walking activity variables by group and time (Holm-Bonferroni correction for multiple comparisons $\alpha=0.007$).

**Study Sample or Initiative Scope:** 12 patients (8 males; 4 females; mean age=49.9 SD 17.0 years; mean length of stay=38 SD 5 days) with ABI attending inpatient rehabilitation.

**Findings:** All patients were physically independent with ambulation (10/12 no walking aid) but required accompaniment off unit due to cognition. Patients demonstrated a significant increase (all $p \leq 0.0005$) in overall walking time, steps/day and duration of walking bouts on WG versus UC days. On average, patients achieved healthy reference values for steps/day during WG days. Walking activity did not change from admission to discharge (all $p \leq 0.10$).

**Discussion:** Implementing an off-unit walking group allowed patients to increase walking activity compared to usual care. Further development of the walking group to target individual patient goals and progression may help to increase walking activity over time. Evaluation of individuals with lower levels of functional mobility may be warranted.

**Conclusions:** Walking groups can provide opportunities to increase activity off the unit for ambulatory patients with ABI. Whether increased walking activity translates to improved walking outcomes requires further exploration.

## Brain Injury / Neuro / Stroke

**Poster Number:** 9

**Title:** CONCUSSION SERVICES: LEADING THE SYSTEM IN INTERDISCIPLINARY MANAGEMENT OF PERSISTENT POST-CONCUSSION SYMPTOMS IN PEDIATRICS

**Authors (Primary First):** Laura Thompson; Katie Symes; Elaine Widgett; Jessica Reid

**Affiliation of Primary Author:** Holland Bloorview Kids Rehabilitation Hospital

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** To lead the system in establishing globally funded services for pediatric concussion management using an interdisciplinary approach incorporating current best practices.

**Relevance:** Concussions are a prominent issue in Ontario (Carey&Morrish, 2013). Children with ongoing symptoms lack comprehensive management to address diverse medical, physical, functional and psychosocial needs. Concussion Services is responding to the significant need for interdisciplinary, pediatric-specific concussion management.

**Methods & Analysis:** Using a multi-modal approach, with a commitment to transforming care, a team of leading researchers, expert clinicians and knowledge translation specialists were brought together to establish our philosophy of care, service model and best practices. The newly released Guidelines for Diagnosing and Managing Pediatric Concussion (ONF, 2014) were key in developing Concussion Services. Our team used consensus building to assess the acceptability of the Guidelines' recommendations and select those most applicable. Through clinical mapping, best evidence was integrated in developing clinical pathways and roles.

**Study Sample or Initiative Scope:** The formation of Concussion Services brought together the expertise of more than 20 individuals within our Organization and our community partners.

**Findings:** As of September 2014, Concussion Services provides comprehensive care to children up to 18 years of age with symptoms lasting > 4 weeks impacting participation in daily life. Within a consultative model, services are delivered by a team of physicians, nursing, OT, PT, and social work. Care focuses on promoting symptom management, psychosocial and physical wellbeing, and return to meaningful activities using current evidence-based practices.

**Discussion:** Concussion Services is the first globally-funded pediatric concussion service within Ontario providing interdisciplinary care to meet the unique needs of children with ongoing symptoms. The service model, pathways and clinical practices were strategically developed using clinical mapping and consensus building for adoption of key recommendations from the Guidelines.

**Conclusions:** Concussion Services is leading the system in providing comprehensive, interdisciplinary, evidence-based care for children and youth experiencing persistent concussion symptoms within the Province.

## Brain Injury / Neuro / Stroke

**Poster Number:** 10

**Title:** EVALUATING COGSMART AND MBCT GROUPS IN PATIENTS WITH PERSISTENT SYMPTOMS OF CONCUSSION: A PILOT STUDY.

**Authors (Primary First):** Laura Rees; Lori Scott-Lowery; Jennifer Heron; Nancy McCormick; Elly Nadorp; Evelyn Tan; Deanna Quon; Shawn Marshall; Patricia McNamara; Steve Joncas

**Affiliation of Primary Author:** The Ottawa Hospital-Rehabilitation Centre

**Abstract Category:** Research in Rehabilitation (quantitative, qualitative or mixed methods)

**Abstract**

**Purpose:** To evaluate the rehabilitation outcome following an 8 week cognitive rehabilitation group (CogSmart) and a 12 week mindfulness based group (MBCT) for individuals with persistent post-concussive symptoms following an ABI.

**Relevance:** Rehab following moderate to severe brain injury enhances recovery of function and return to the highest level of independence possible following an ABI. However, when it comes to those suffering prolonged effects of concussion or mTBI there is little agreement on whether rehab efforts are effective and/or appropriate.

**Methods & Analysis:** Patients seen through the Post-Concussion Research Based Clinic at The Ottawa Hospital-Rehabilitation Centre were referred to either a cognitive rehab group and/or a mindfulness based group if they were reporting cognitive and/or mood symptoms that interfered with daily functioning. Each person completed the following measures prior to the beginning of the group(s) and again at the end of the group(s): PHQ-9/GAD-7, FIS, SWLQ, Cognitive Symptom checklist, Rivermead PCQ. Data currently being collated. ANCOVA will be carried out on the pre-post measures with mood & fatigue as covariates.

**Study Sample or Initiative Scope:** To date we have run 3 CogSmart (N = 30) and 3 MBCT groups (N = 34) in the past year. Subjects are 1-3 yrs post injury and few have returned to work.

**Findings:** Preliminary results suggest that overall, participants in both groups reported less symptoms (e.g., mood, cognitive and physical symptoms) and improved quality of life at the end of each group. Qualitative feedback from participants indicated that most found the group(s) valuable as they no longer felt that they were alone, that someone understood what they what they were going through, and that they had learned self-management strategies.

**Discussion:** In order to better understand outcome following concussion/mTBI, it is necessary to evaluate what is the best rehabilitation approach in dealing with those with persistent symptoms and whether rehabilitation efforts can minimize symptom presentation and/or increase instrumental activities and quality of life.

**Conclusions:** Future research will evaluate the effectiveness of groups as well as the outcome between groups

## Brain Injury / Neuro / Stroke

**Poster Number:** 11

**Title:** TEACHING CLIENT INDEPENDENCE IN SELF-MANAGEMENT OF MEDICATION ASSESSMENT PROGRAM

**Authors (Primary First):** Paitra Surerus; Melanie Hay

**Affiliation of Primary Author:** NRIO

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** To promote client education and skill in the area of medication management; to better assess client readiness to manage their own medication from a more holistic perspective from medication ordering and refilling to administration and storage.

**Relevance:** A large portion of client's living with ABI who are fairly independent with routine ADLs will return to the community with minimal supports but continue to have difficulties managing their medications reliably and safely. We developed a structured program to assess and train clients how to manage medications effectively.

**Methods & Analysis:** We reviewed a variety of client assessment and tracking methods currently and historically used by our organization for medication. We also reviewed material used for staff medication training and adapted these materials to develop an education tool for clients. We used the materials most relevant to our client population to develop an all-encompassing medication management program that includes educational, assessment and tracking tools related to medication administration, refilling and monitoring.Clients must demonstrate a consistent level of proficiency at each stage before progressing to the next.

**Study Sample or Initiative Scope:** The focus of our program is to promote independent medication management with acquired brain injured individuals, two case studies will be presented.

**Findings:** Our preliminary findings demonstrate an increase in independent medication management from dependent to independent.Two clients assessed at admission into NRIO were dependent, and upon discharge successfully completed the program and were deemed to be at independent level. Study is still ongoing with clients who are currently in program.

**Discussion:** Some areas to consider, to further define the levels of independence i.e. Independent with aid, for example having a phone with a cue but what happens when the client doesn't have their phone. A few barriers are also present in the initiative program such as controlling for narcotics, injections and over the counter medications.

**Conclusions:** Our program offers independent medication management for clients with acquired brain injuries reintegrating back into the community. Clients with ABI can achieve independence with medication when using a structured program that assesses and educates clients on all aspects of medication management.

## Brain Injury / Neuro / Stroke

**Poster Number:** 12

**Title:** BUILDING A COLLABORATIVE CONCUSSION CARE STRATEGY ACROSS ONTARIO

**Authors (Primary First):** Donna Ouchterlony; Corinne Kagan; Cindy Hunt

**Affiliation of Primary Author:** St. Michael's Hospital

**Abstract Category:** Ideas, Inventions and Innovations that will Transform the Rehabilitation Mosaic

**Abstract**

**Purpose:** Concussion care across ON is fragmented with inconsistent and costly levels of service which are often ineffective for concussion survivors & their families. It is time to address a coordinated province wide concussion strategy.

**Relevance:** Concussions are a public health problem with 264,000/yr. Issues to access care & treatment for post-concussive symptoms often leaves needy patients waiting and suffering. This clinician-driven initiative represents a tangible opportunity to make a large impact and change the way concussions are treated in Ontario.

**Methods & Analysis:** Under the leadership of leading clincial scientists from SMH the Ontario Neurotrauma Foundation sponsored a 1 day workshop in May 2014, to bring together clincial experts from across the province. Over 50 participants attended and acheived concensus on a shared vision& shared governance in oder to a) develope quality care metrics to standardize the measurement of patient outcomes b) build a sustainable province-wide shared concussion care data base c)refine and validate a concussion triage algorithm d)implement & evaluate the strategy.

**Study Sample or Initiative Scope:** Key to the plan of action is the engagement of exisiting nodes of concussion care across ON.

**Findings:** In July, the quality care metrics were agreed upon using the resources; ONF-TBI clinical guidelines and international literature. Pilot sites began to implement a questionnaire mailed to concussion patients for them to complete and bring to their first tertiary clinic appoinment. Data collection has been implemented and plans for electronic data capture established.

**Discussion:** The scope and scale of the issues surrounding concussion care for patients and families are challenging in this geographically diverse and health resource limited province. It presents a compelling case for change. This strategey has a planned phased-in approach to the implementation of concussion quality care metrics.

**Conclusions:** Concussion is now recognized as a major public health and economic burden. The task of building a Collaborative Concussion Care Strategy required working partnerships that can improve the management of health system resources and quality of care. This strategy will benefit patients, families and communities.

## Brain Injury / Neuro / Stroke

**Poster Number:** 13

**Title:** TIMELY STROKE EDUCATION: LONGITUDINAL EDUCATIONAL NEEDS OF STROKE SURVIVORS IN TRANSITION

**Authors (Primary First):** Heather MacNeill; Kimberley Meighan; Tri N. Nguyen; Jill Cameron

**Affiliation of Primary Author:** Bridgepoint Active Healthcare, University of Toronto

**Abstract Category:** Research in Rehabilitation (quantitative, qualitative or mixed methods)

**Abstract**

**Purpose:** To qualitatively assess the educational needs of stroke survivors as they transition from inpatient rehabilitation to outpatient rehabilitation to community settings.

**Relevance:** One of the Canadian Stroke Best Practice Recommendations is that education must be addressed at all stages across the continuum of care for stroke survivors [Evidence Level A]. However, there is little evidence supporting how to provide education at different points in time across the continuum.

**Methods & Analysis:** Patients attending inpatient stroke rehabilitation and transitioning to outpatient rehabilitation at the same institution were interviewed using 1:1 semistructured interviews at 3 points in time: inpatient, outpatient and community settings. Transcripts were recorded, transcribed and are currently being analysed using qualitative framework analysis. Based on Cameron and Gignac's ''Timing it right'' framework we are coding the data to identify emergent themes related to stroke education from patients' experiences and determine the influence of different stages of stroke care.

**Study Sample or Initiative Scope:** Five stroke survivors were interviewed. Exclusion criteria included moderate-severe cognitive or communication impairment.

**Findings:** In this pilot sample, 4 preliminary themes have emerged: 1. Education as generalized vs individualized experiential learning; 2. Education as normalization, reassurance, support, hope, empowerment; 3. Importance of framing/ timing and emphasis of education; 4. Patient preferences of learning. Each theme is being analysed using the timing it right framework to assess stroke survivors' education needs across the continuum of care.

**Discussion:** Cochrane and systematic reviews examining stroke survivors' education needs post stroke revealed few studies examining patients' needs longitudinally and did not focus on needs in transition through different rehabilitation settings. This study hopes to provide insights into stroke survivors needs as they transition through different care settings.

**Conclusions:** A new education series for stroke survivors was implemented based on the preliminary results of this pilot research study, and will continue to be guided by further research results. This study may provide some insights or guidance to other stroke education series in rehabilitation and across the continuum of care.

## Brain Injury / Neuro / Stroke

**Poster Number:** 14

**Title:** DEVELOPMENT AND IMPLEMENTATION OF A CLINICAL PRACTICE GUIDELINE FOR THE REHABILITATION OF ADULTS WITH MODERATE TO SEVERE TRAUMATIC BRAIN INJURY

**Authors (Primary First):** Mark Bayley; Corinne Kagan; Catherine Truchon; Bonnie Swaine; Shawn Marshall; Marie-Eve Lamontagne; Ailene Kua; Anne-Sophie Allaire

**Affiliation of Primary Author:** Toronto Rehabilitation Institute; University Health Network; Ontario Neurotrauma Foundation; University of Toronto

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** To develop and adapt a Clinical Practice Guideline (CCG) for Traumatic Brain Injury (TBI) rehabilitation for use in Ontario and Quebec. To improve quality and consistency of care provided and optimize patient health outcomes.

**Relevance:** The literature about rehabilitation after TBI continues to expand. Successful implementation of CPGs are contingent not only on a methodologically rigorous development process, but also on adaptation to local context, understanding clinicians needs and providing tools to facilitate implementation and measure outcomes.

**Methods & Analysis:** The project involves six stages over a three-year period: (1) A scoping review and quality evaluation of existing CPGs, (2) A formal survey of end-users' (clinicians and managers) needs and expectations, (3) Synthesis of existing information (CPGs, literature review, survey) (4) Coordination of a consensus process amongst experts, (5) Adaptation of the recommendations, selection of indicators to measure CPG adherence and production of the guideline, and (6) Supporting Implementation of the CPG in clinical settings.

**Study Sample or Initiative Scope:** Ontario and Quebec clinician/researchers coordinate this project and work with 60 experts from both provinces on committees and the consensus panel.

**Findings:** Stage 1 & 2 (scoping review and survey results) informed the development process of the CPG to address the needs/priorities of target users and implementation considerations. Stage 3 produced an evidence synthesis matrix to support the consensus panel in adaption and formulation of recommendations. A two-day expert consensus conference reviewed existing recommendations and formulated new ones based on existing evidence and/or expert consensus.

**Discussion:** This will be the first bilingual TBI rehabilitation CPG in Canada and will provide guidance to clinicians and funders as to best practices. This CPG aims to improve quality and consistency of care, in turn optimizing patient health outcomes by providing a rigorously developed evidence-informed guideline with recommendations and tools that are most useful to the end user.

**Conclusions:** This research/practice will support stakeholders to enhance rehabilitation practice by providing a locally relevant, evidence-informed CPG. This guideline will benefit from a better understanding of end-users' needs, evaluation of previously published CPGs and provision of tools/indicators for successful implementation.

## Brain Injury / Neuro / Stroke

**Poster Number:** 15

**Title:** INTEGRATING BEST PRACTICE STROKE CARE ACROSS THE ERIE ST CLAIR LOCAL HEALTH INTEGRATION NETWORK (ESC LHIN): CREATION OF A LHIN WIDE PATHWAY

**Authors (Primary First):** Deborah Willems; Helen Johnson; Linda Dykes; Linda Butler; Denise St Louis; Paula Gilmore

**Affiliation of Primary Author:** London Health Sciences Centre

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** The ESC LHIN Rehabilitation Network resolved to reach consensus on a future state system of care to improve flow, meet best practice and quality based procedures (QBP) standards, and improve the care and outcomes of persons experiencing stroke.

**Relevance:** In 2013, the third annual Ontario Stroke Report Card was released. A review of the report card revealed that the ESC LHIN fell below the benchmark on all 20 stroke indicators and below the 50th percentile on five indicators. As a result, stroke care was identified as a priority for system improvement by the LHIN.

**Methods & Analysis:** The Rehabilitation Network Strategic Plan aimed to provide value by improving health, enhancing the patient experience, and reducing cost of care. A current state inventory was completed and gaps identified using stroke best practice and QBP recommendations. A future state stroke care pathway was developed to guide the system change required in the region. The provincial Rehabilitative Care Alliance's new definitions for bedded levels of care framework was used to review bed capacity. An evaluation framework was created, identifying indicators and targets for clinical outcomes and system performance.

**Study Sample or Initiative Scope:** The LHIN focused on developing a rehabilitation strategy and action plan for improving stroke care and meeting QBPs in the region's eight hospitals.

**Findings:** The QBP targets require substantial change in clinical practice. A system of care was needed with a focus on building transitional strategies and services to create better flow through the system for stroke care. Necessary changes included rapid access to inpatient rehabilitation for stroke survivors, a plan to meet the needs of persons with severe stroke and availability of specialized, intensive stroke rehabilitation services in the community.

**Discussion:** Considering the target acute length of stay of five days, it was apparent that the needs of a person with severe stroke to establish a long term management plan prior to discharge from hospital would be best accomplished in a post acute setting. In the future state stroke care pathway all stroke survivors unable to return home are transferred to inpatient rehabilitation.

**Conclusions:** As a result of the pathway, a business case for specialized stroke rehabilitation services in the community was identified as a priority for funding. Engagement of stakeholders to identify what it would take to transfer all stroke survivors unable to be discharged home from acute care to inpatient rehabilitation is underway.

## Brain Injury / Neuro / Stroke

**Poster Number:** 16

**Title:** A QUALITATIVE SYSTEMATIC REVIEW OF HOSPITAL-TO-SCHOOL TRANSITIONS EXPERIENCED BY STUDENTS, PARENTS, CLINICIANS AND EDUCATORS FOLLOWING PEDIATRIC ACQUIRED BRAIN INJURY (ABI)

**Authors (Primary First):** Laura Hartman; Sally Lindsay; Michelle Duncanson; Alana Tibbles; Alicia Paniccia; Sarah Farahat

**Affiliation of Primary Author:** Bloorview Research Institute, Holland Bloorview Kids Rehabilitation Hospital

**Abstract Category:** Research in Rehabilitation (quantitative, qualitative or mixed methods)

**Abstract**

**Purpose:** To consolidate literature on the hospital-to-school transition process as experienced by children/youth following ABI, their families, clinicians, and educators in order to provide insight into the current practices that they find helpful or lacking

**Relevance:** The transition back to school following pediatric ABI is complex and dynamic, requiring collaboration between students, families, educators, and clinicians to facilitate the process. This review provides insight into practices that they find helpful and improvements that they recommend for successful transition processes.

**Methods & Analysis:** This study employed a systematic review methodology; searching seven databases for articles pertaining to childhood and youth ABI and return to school from 1989 to 2014 that used qualitative methods for data collection and analysis. 6933 articles were initially identified, and after applying inclusion criteria and reviewing the reference lists of all relevant studies, the resulting sample included 24 unique articles. Articles were thematically analysed using a qualitative research synthesis approach, and were considered both individually and as a whole for themes and recommendations.

**Study Sample or Initiative Scope:** The final sample had 24 peer-reviewed research articles from 1989 to 2014 using qualitative methodological designs for data collection and analysis

**Findings:** Key findings indicated four major areas of relevance: (1) lack of communication between and within hospitals, schools and families; (2) lack of education or knowledge regarding ABI for educators, families, and students, with a desire for more education from clinicians; (3) lack of a structured return-to-school process; and (4) benefits of feeling supported in this process.

**Discussion:** Following ABI, students, families, and the professionals supporting the transition back to school all demanded more education on how to successfully return students to school and called for clearer communication regarding each person's role in facilitating this transition. Structured education, interventions and policy on the return-to-school process were recommended.

**Conclusions:** By considering the elements that end-users find helpful in the hospital-to-school transition process following pediatric ABI, recommendations for future interventions and programs can be crafted in a way that consider efficacy as well as student, family, and professional uptake and satisfaction.

## Brain Injury / Neuro / Stroke

**Poster Number:** 17

**Title:** AN INTERPROFESSIONAL APPROACH TO ENHANCING BEHAVIOURAL MANAGEMENT PROCESS

**Authors (Primary First):** Edith Man Wai Ng; Tess Devji; Craig Norman; Joanne Zee

**Affiliation of Primary Author:** Toronto Rehab, UHN

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** The objective of this quality improvement (QI) initiative is to examine how the implementation of the early phases of a behavioural management process influences patient outcome and practice in an inpatient Brain Injury rehabilitation setting.

**Relevance:** Agitated behaviours are common after Brain Injury. Their impacts on participation and rehabilitation outcome are well documented. Incidents involving violence and agitated behaviours in an inpatient Brain Injury rehabilitation service have prompted the initiation of this Managing Challenging Behaviour QI initiative.

**Methods & Analysis:** As part of the Managing Challenging Behaviour QI initiative, an interprofessional team was formed to examine its current behavioural management processes. Given the complexity of behavioural management, only one segment of the process was examined at this time: the process from the recognition of an agitated behaviour to the escalation of the behaviour. A new process was developed and separated into phases to implement on the unit. Chart audits, incident records, daily huddles, and surveys are used to examine how these new processes influenced practice and patient outcome. Descriptive analysis will be used.

**Study Sample or Initiative Scope:** Information will be collected from patients with agitated behaviours and from the staff in the inpatient Brain Injury rehabilitation service.

**Findings:** How the Interprofessional team was mobilized to evaluate, develop, and implement processes and practices as part of the Managing Challenging Behaviour QI initiative will be described. The influence of these changes on patients and staff, such as number of agitated behaviour incidents and escalated incidents, and staff's perception on their impact on practice will be reported. How findings inform the next phase of the initiative will be discussed.

**Discussion:** This initiative can have an impact on patient and staff safety and can provide insight into the development of processes to guide the management of agitated behaviour after Brain Injury. The lessons learned can inform future quality improvement initiatives and studies related to behavioural management and interprofessional practice.

**Conclusions:** Managing challenging behaviour is complex. Focusing on the processes involved and the use of an interprofessional and systematic approach can be valuable when examining and enhancing the management of challenging behaviours in rehabilitation.

## Cardiac / Pulmonary

**Poster Number:** 18

**Title:** MEASURING EFFECTIVENESS OF GROUP EDUCATION IN CARDIAC REHAB: FOOD LABEL READING COMPETENCE & SELF-EFFICACY.

**Authors (Primary First):** Maria Ricupero; Fatim Ajwani

**Affiliation of Primary Author:** University Health Network, Toronto Rehabilitation Institute

**Abstract Category:** Research in Rehabilitation (quantitative, qualitative or mixed methods)

**Abstract**

**Purpose:** To determine the effectiveness of patient group education delivered by registered dietitians (RDs) on how to read food package labels. Does this group education increase patients' knowledge and self-efficacy to make healthier food choices?

**Relevance:** Education on reading food labels may increase knowledge and self-efficacy to make informed choices; the first step in adopting healthier diet behaviors. This project supports patient self-management by offering practical strategies. Measures specific to food label reading competence have not been evaluated in cardiac rehab.

**Methods & Analysis:** A literature search determined the link between knowledge, self-efficacy and diet behavior changes for reading food labels. A pre-/post-questionnaire was designed using a modified Delphi approach to measure knowledge and confidence to interpret the nutrition facts panel on packaged foods. Intention to read food labels in the future was also captured.The questionnaires were administered to Cardiac Rehab patients attending group education on Reading Food Labels. Results were scored, tabulated (by sex and age) and analyzed for statistical significance.For qualitative measures, the most common themes were noted.

**Study Sample or Initiative Scope:** 70 patients attending Cardiac Rehab at Rumsey Centre of Toronto Rehab, University Health Network. 55 male; 15 female. Age range: 32 to 93 years

**Findings:** 1.Scores indicated a statistically significant change in knowledge ($p = < 0.001$) following RD group education. 2. Patients over 75 years gained knowledge, but scores were 26% lower than patients under age 75.3. Numeracy and literacy remain major challenges. 4.With knowledge, patients expressed more confidence in applying food label reading to help promote healthy eating behaviors. 5.100% of respondents indicated an intention to change behaviour.

**Discussion:** Our study showed group education increased knowledge, which linked to patient self-efficacy to make healthier food choices. Future education will need to tailor to the unique needs of the elderly, those with low literacy and language barriers. Group education is cost-effective; this study proved effective. Higher self-efficacy is a strong predictor of behavior change.

**Conclusions:** RD education on Reading Food Labels in Cardiac Rehab leads to increased knowledge and helps foster self-efficacy to make healthier behavior changes. Lower numeracy and literacy and elderly patients present education challenges that may likely be shared across health professions.

# Caregiver Stress

**Poster Number:** 19

**Title:** SUPPORTING FAMILIES OF CHILDREN WITH MEDICAL COMPLEXITY: GATHERING EVIDENCE ON INTERVENTIONS TO REDUCE CAREGIVER STRESS

**Authors (Primary First):** Julia Schippke; Hilary Edelstein; Sarah Sheffe; Shauna Kingsnorth

**Affiliation of Primary Author:** Holland Bloorview Kids Rehabilitation Hospital

**Abstract Category:** Research in Rehabilitation (quantitative, qualitative or mixed methods)

**Abstract**

**Purpose:** To examine the current evidence base on interventions to support caregiver stress for families of children with medical complexity (CMC).

**Relevance:** CMC have multiple complex chronic conditions and substantial health service needs. As a result, families experience significant stress as they balance multiple roles when coordinating and managing care for their child. The high burden of care necessitates understanding best practices to support caregiver stress.

**Methods & Analysis:** Arksey and O'Malley's (2005) scoping review methodology framed the search process. Three scientific peer-reviewed databases were selected; reference lists of key articles were hand searched; and a general internet search was done to ensure an exhaustive approach. Inclusion criteria were:(1) Published in English between 2004-2014,(2) Focused on caregivers defined as parents, siblings or extended family of CMC,(3) Described caregiver stress, an intervention and the impact of the intervention on caregiver stress. Data on intervention domain, type of stress, population, outcome measures, and findings were extracted.

**Study Sample or Initiative Scope:** Over 19,000 articles from the search strategy were found, 520 articles were reviewed in full-text and 45 papers met the inclusion criteria.

**Findings:** Nine domains of interventions were found across the studies, reflecting a range of approaches for supporting caregiver stress. These include interventions that impact families directly (e.g. peer support) or indirectly through a broader health systems approach (e.g. care coordination). Additionally, a variety of study designs and outcome measures (e.g. quality of life, satisfaction with services) were used to explore caregiver stress.

**Discussion:** Studies call for the greater provision of emotional support in the form of counselling for caregivers and increased continuity of care as families navigate the health system. Across interventions, results point to a need for high quality training around medical complexity for service providers and families who care for CMC.

**Conclusions:** Nine domains of interventions with best practices for supporting families were identified. These approaches reflect the interconnectedness between caregiver stress and the child's care. More evaluative research is needed to better understand the impact of varied interventions on caregiver stress.

## MSK

**Poster Number:** 20

**Title:** FACILITATING CLIENT CENTERED LEARNING RELATED TO MEDICATIONS AND FOLLOW UP APPOINTMENTS AFTER DISCHARGE IN AN ORTHOPEDIC REHABILITATION SETTING

**Authors (Primary First):** Lori McCall; Heather Edwards

**Affiliation of Primary Author:** Hamilton Health Sciences

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** Through fostering client centered learning the aim was to improve patient's knowledge of their post discharge follow up appointments as well as the medications prescribed in order to promote a successful community transition.

**Relevance:** It is critical that all patients or family members understand their medications at the time of discharge to necessitate a safe community transition and avoid hospital readmission. Patients or family members must also be aware of follow up appointments with surgeons or other medical experts to ensure an optimal recovery.

**Methods & Analysis:** A patient satisfaction survey provided at discharge identified that 20% of patients did not feel their medications were reviewed with them at discharge in a way they understood. Furthermore, 36% of patients did not believe follow up appointments were explained to them prior to discharge. A Plan/Do/Study/Act cycle was used to implement a teach back strategy with patients or family members. Instead of the day of discharge, all nursing staff facilitated teaching the day before discharge in order to allow the information to digest and opportunities for clarification before discharge.

**Study Sample or Initiative Scope:** 15 orthopedic rehabilitation patients on an inpatient rehab unit, post elective or non-elective hip or knee replacement. 11 females and 4 males.

**Findings:** 15 patients were provided with the same patient satsifaction questionnaire 4 weeks after discharge. The survey was conducted over the phone by an Occupational Therapist. The percentage of patients who reported understanding their medications remained the same; however, understanding of medical appointments increased to 93%. Overall, satisfaction with the discharge planning process increased from 3.2 out of 4.0 to 3.8 out of 4.0.

**Discussion:** The teach back methodology has proven valuable in educating patients and family members on medications and follow up appointments and one may infer the same methodology could be useful when discussing other important topics such as falls and the proper use of gait aids, all of which could benefit the patient's rehabilitation and community recovery.

**Conclusions:** Utilization of the RNAO best practice guideline of client centered learning through the teach back format has resulted in increased understanding and knowledge retention with regards to medications and follow up appointments for patients discharged from an inpatient Orthopedic rehabilitation unit.

## MSK

**Poster Number:** 21

**Title:** IMPLEMENTING A CHANGE INITIATIVE IN THE PROCESS FOR REFERRAL/ TRANSITION TO REHAB FOR PATIENT'S POST HIP FRACTURE

**Authors (Primary First):** Jane Harwood; Jackie Eli; Mandy Lau; Charissa Levy

**Affiliation of Primary Author:** TEGH

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** It was hypothesized that reducing the time to start and complete a rehab referral application in acute care from post op day 3 to post op day 1 would reduce the LOS and ALC days from 4.42 days to 3 days by October 1, 2014

**Relevance:** TEGH implemented activities aligned with Health Quality Ontario's fractured hip recommendations that patients should receive active rehabilitation in a post-acute setting commencing by day 6 post-surgery by working with 2 main external rehab partners: Bridgepoint Active Health Care and Providence Healthcare

**Methods & Analysis:** QI tools were utilized to map out current state for patient transition from acute care to rehab and overall LOS. Fishbone tool and driver diagrams were used to complete a gap analysis and areas for improvement were prioritized. The time to start and complete a rehab referral application in acute care from post op day 3 to post op day 1. PDSA cycle 1 was conducted with Providence and PDSA cycle 2 adding Bridgepoint. Outcome measure collected includes: Average total ALC days to external rehab ≤3 days as well as process and balancing measures

**Study Sample or Initiative Scope:** Patients admitted to TEGH with Hip Fractures who required post-acute rehab following surgery and who were referred to Providence or Bridgepoint.

**Findings:** The aim was to reduce the overall total average LOS at TEGH from 7 days acute +3.5 days ALC=total of 10.5 days to 6 days acute+1.8 days ALC=total of 7.8 days. Results from the PDSA cycles demonstrate improvement. The Average ALC LOS for all early referral = 1.25 days (Project Target ≤1.8 days); Average Total LOS for all early referral patients = 5.43 days (Big dot aim ≤7.8 days.)

**Discussion:** The time to start and complete a rehab referral application in acute care from post op day 3 to post op day 1 is a process that can assist organizations in reducing ALC and total LOS for patients waiting for transition to rehab. Benefits include: increased patient satisfaction and improvement in patient flow. The learnings are being shared across the Toronto Central LHIN.

**Conclusions:** Data matters in quality improvement initiatives; collaboration and relationships are foundational to change and sustainability; teams must be willing to fail, learn, fail again and improve along the way; small incremental change can make a big difference and communication between health care organizations is key

## MSK

**Poster Number:** 22

**Title:** DEVELOPING AN OUTPATIENT REHABILITATION MODEL OF CARE FOR PATIENTS POST-HIP FRACTURE

**Authors (Primary First):** Sharon Ocampo-Chan; Charissa Levy

**Affiliation of Primary Author:** GTA Rehab Network

**Abstract Category:** Knowledge Transfer and Exchange Initiative

**Abstract**

**Purpose:** The purpose of the initiative was to identify and recommend a standardized, optimal model of care in outpatient rehabilitation for patients post-hip fracture based on the informed opinion of clinical experts.

**Relevance:** Due to potential variability in outpatient program models of care, the Toronto Central LHIN Musculoskeletal/Stroke Implementation Working Group identified the need to improve and standardize the quality of care provided to patients post-hip fracture in the outpatient rehabilitation programs within the region.

**Methods & Analysis:** The development of this model of care was approached in three stages. Twenty-two key informants from acute care and outpatient rehab were interviewed to determine the models of care in outpatient rehabilitation programs at the time of the interview for patients post-hip fracture. Then, a literature review was conducted focusing on examining the benefits of outpatient rehabilitation for patients post-hip fracture and the models utilized in the literature. Lastly, a consultation group was convened to develop the final model.

**Study Sample or Initiative Scope:** The focus of the initiative was on the outpatient rehabilitation setting for patients post-hip fracture in the Toronto Central LHIN.

**Findings:** The final outpatient rehabilitation model of care developed for patients post-hip fracture will be shared in the presentation. The model includes recommendations on length of the program, frequency of intervention, length of each session, structure, program content as well as guidelines to discharge the patients from outpatient rehabilitation.

**Discussion:** There is an acknowledgement that this model serves as a guideline and deviation from the model may occur based on patient needs especially for patients with complex needs or cognitive impairments. It was also recommended that this model be reassessed if significant changes occur in referral patterns related to patient volume and/or complexity.

**Conclusions:** The development of this standardized outpatient rehab model of care for patients post-hip fracture highlighted the need for further research focusing on the needs of patients post-hip fracture with complex needs or cognitive impairment.

## MSK

**Poster Number:** 23

**Title:** QUALITY INDICATORS FOR HIP FRACTURE PATIENTS: A SCOPING REVIEW

**Authors (Primary First):** Kristen Pitzul; Sarah Munce; Laure Perrier; Lauren Beaupre; Suzanne Morin; Rhona McGlasson; Susan Jaglal

**Affiliation of Primary Author:** University of Toronto

**Abstract Category:** Systematic Literature Review

**Abstract**

**Purpose:** The purpose of this study was to synthesize the evidence surrounding quality of care indicators for patients who have sustained a hip fracture across the entire continuum of care

**Relevance:** Over 30,000 hip fractures occur annually in Canada. Loss of function and autonomy is common following hip fracture, as well as excess mortality. Prior to optimizing quality of care for these patients, there must be a mechanism for the measurement of quality of care across the continuum.

**Methods & Analysis:** Arksey and O'Malley (2005) and Levac et al (2010) frameworks were applied. The synthesis was limited to quality of care indicators for individuals who suffered a hip fracture due to low trauma. English peer-reviewed studies published from the year 2000- Jan 2014 were included. Search strategies were developed, peer-reviewed, and numerous databases were searched. Two reviewers independently screened the titles and abstracts (level 1) and then full text (level 2) of potentially relevant articles. Abstracted data included study characteristics and indicator definitions.

**Study Sample or Initiative Scope:** Older adults (aged 50 and over) who sustained a hip fracture due to low trauma (e.g., fall from standing height or less).

**Findings:** 2,053 studies were found and data was extracted for 224 studies (10.9%). Most studies were from the United Kingdom and only 19 studies were Canadian. Mortality, time to surgery, length of acute care stay, in-hospital complications, and discharge destination from acute care were the most frequently used indicators. Most validated quality of care indicators were developed and used to evaluate care delivery within the acute care period

**Discussion:** Although measures of functional improvement or balance were used to evaluate patients' progress within post-acute settings, there were few quality of care indicators. In an effort to improve quality of care for patients and create a more efficient healthcare system, mechanisms for the measurement of quality of care should be in place in both acute and post-acute settings

**Conclusions:** The implementation of quality of care indicators enables stakeholders to target areas for improvement across the continuum. As hip fracture patients have significant morbidity that must be addressed within post-acute care, the inability to appropriately measure quality of care delivery during this period is concerning.

## Relevant Across Rehabilitation Populations

**Poster Number:** 24

Abstract information cannot be posted on-line

**Poster Number:** 25

**Title:** UROSEPSIS: EARLY DETECTION AND PREVENTION

**Authors (Primary First):** Winsome Lewis-Edmondson

**Affiliation of Primary Author:** UHN-Toronto Rehab Bickle Centre

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** To study the incidences of catheter associated urinary tract infections in complex continuing care.

**Relevance:** 50% of females and 40% of males in long-term care have a high prevalence of asymptomatic bacteruria due to acute or chronic catheter use. 10% of these patients will develop a Urinary Tract Infection. Research suggests that minimizing catheter use, combined with proactive strategies, can decrease UTI incidences.

**Methods & Analysis:** A literature review was conducted, to understand the impact of long-term urinary catheter use, followed by an analysis of patient charts to determine the incidence and prevalence of catheterization amongst the CCC population. Existing early detection tools were examined, and discussions with various inter-professional team members and patients occurred.

**Study Sample or Initiative Scope:** The study consisted of medically complex CCC patients ranging in age from 20 to 90 +, requiring frequent medical and nursing interventions.

**Findings:** A total of five Complex and Continuing Care (CCC) patients with chronic indwelling catheter use spanning three to ten years were studied. The research conducted revealed a high incidence of Urinary Tract Infections (UTI) amongst chronic catheter users, in comparison to residents without chronic catheters. Three catheters were removed successfully and remain out. The other two catheter removals were unsuccessful due to medical issues.

**Discussion:** Staff education was provided, reviewing catheterization and bladder scan protocols. Routine bladder scans post catheter removal helped to detect urine retention, and the need for additional urodynamic diagnostic testing. An algorithm was created to support early detection and management of UTI's.

**Conclusions:** Prevention of catheter associated UTI is important as it affects quality of life for patients. Future research is needed to explore reduction of symptomatic bacteruria occurrences.

## Relevant Across Rehabilitation Populations

**Poster Number:** 26

**Title:** CREATING A PERSON-CENTRED, INTERPROFESSIONAL DOCUMENTATION TOOL FOR PAIN MANAGEMENT IN ADULT REHABILITATION

**Authors (Primary First):** Siobhan Donaghy; Susan Schneider; Jennifer Shaffer; Elizabeth Williamson

**Affiliation of Primary Author:** Sunnybrook Health Sciences Centre (St. John's Rehab)

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** The purpose of this initiative was to apply the organization's corporate best practice standard for pain management to an interprofessional, adult rehabilitation context, through the creation of an integrated clinical documentation tool.

**Relevance:** Person-centred pain management is considered best practice in rehabilitation care. A need was identified for the creation of an integrated documentation tool to enhance team communication related to the assessment, intervention and evaluation of pain in collaborative rehabilitation practice.

**Methods & Analysis:** An interprofessional clinical leadership team reviewed the evidence and conducted an inventory of existing tools and processes used to assess, treat and evaluate pain in adult rehabilitation. An interprofessional chart audit and a resulting gap analysis identified the need for an integrated clinical documentation tool to support team communication and person-centred pain management. Clinicians were then engaged in the development of an integrated flow sheet for the documentation of pain management. Education for clinical teams in the use of this tool was co-facilitated in an interprofessional format.

**Study Sample or Initiative Scope:** This initiative was applicable to all inpatient specialty rehabilitation programs, and engaged clinicians across all relevant professions.

**Findings:** An integrated pain documentation flow sheet was created, to support interprofessional team communication and person-centred care planning in adult rehabilitation. Upon reflection, it was identified that interprofessional communication, person-centred care and role clarification were fostered during the development, education and implementation processes of this tool.

**Discussion:** The integrated pain documentation flow sheet will support communication of the interprofessional team to enable the delivery of person-centred rehabilitation care related to pain management. As a result of this initiative, opportunities are being explored to support interprofessional team communication related to other areas of best practice.

**Conclusions:** Interprofessional care can be effectively modelled and applied to the implementation of a clinical standard in adult rehabilitation, in part through the creation of integrated clinical documentation tools. Next steps are to evaluate the use of the tool and its impact on the patient experience.

## Relevant Across Rehabilitation Populations

**Poster Number:** 27

**Title:** MANAGING COMPLEXITY IN PRIMARY HEALTH CARE: DEVELOPING AND PILOTING THE HSPRN-BRIDGEPOINT ELECTRONIC REPORTED OUTCOMES (EPRO) MHEALTH TOOL.

**Authors (Primary First):** Carolyn Steele Gray; Anum Irfam Khan; Kerry Kuluski; Cheryl Cott; Lora Cruise

**Affiliation of Primary Author:** Bridgepoint Collaboratory for Research and Innovation, Bridgepoint Active Healthcare; Institute of Health Policy Management and Evaluation, University of Toronto

**Abstract Category:** Ideas, Inventions and Innovations that will Transform the Rehabilitation Mosaic

**Abstract**

**Purpose:** Our objective was to develop a patient-centred mobile application to improve care for patients with complex chronic disease and disability (CCDD) in primary care settings.

**Relevance:** Patients with CCDD have multiple chronic conditions, experience symptoms that impact their daily lives, and are among the highest users of the health system. Our tool is designed to meet both patient and provider needs by facilitating the adoption and monitoring of goal-oriented patient care plans.

**Methods & Analysis:** A multi-phased user-centred design method was used to build the tool. Development and usability testing was conducted with patients and providers from Toronto's Bridgepoint Family Health Team and experts in the fields of eHealth, multi-morbidity symptomology, and CCDD patient needs. Focus groups with CCDD patients and their caregivers and interviews with providers and experts were conducted to identify user-needs, and a prototype was refined through working groups. Finally, a 4-week usability pilot was conducted to assess the tool's efficiency, effectiveness, satisfaction and learnability.

**Study Sample or Initiative Scope:** Patients with CCDD, their caregivers, Family Health Team providers, and experts were involved in development and usability testing of the tool.

**Findings:** The usability pilot revealed that patients and providers generally found the tool easy to use. Pilot participants revealed that using the tool supported improved patient-provider interactions, and helped patients both identify and meet care goals. There was an identified need to further refine the design to allow for tailoring monitoring functions to meet diverse individual patient needs.

**Discussion:** We developed a system that can enhance the quality of and access to primary health care delivery by improving patient-provider interactions at the point of care, and through mobile monitoring. The tool also supports patient goal-setting and self-management, mechanisms proven to help avoid declines and unnecessary health care utilization for patients with chronic disease.

**Conclusions:** Both patients and providers see goal-setting as a key aspect of care for patients with CCDD. A user-centred design was pivotal to designing a tool to meet both patient and provider needs. Further evaluation will seek to determine the impact of the tool on both patient and provider outcomes.

## Relevant Across Rehabilitation Populations

**Poster Number:** 28

**Title:** BRIDGING THE SECTORAL AND DISCIPLINARY DIVIDE: EQUITABLE ACCESS TO REHABILITATION DELIVERY MODEL FOR PEOPLE LIVING WITH HIV(PHAS)

**Authors (Primary First):** Amanuel Tesfamichael

**Affiliation of Primary Author:** Canadian Working group on HIV and Rehabilitation (CWGHR)

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** The purpose of this rehabilitation delivery model is to promote equitable access to rehabilitation for people living with HIV (PHAs) through a â€œNational Rehabilitation Networkâ€ to promote multi-sector collaboration.

**Relevance:** According to the Public Health Agency of Canada, 71,300 Canadians were living with HIV at the end of 2011. Individuals living with HIV are living longer but they experience a multitude of chronic or episodic disabilities. Thus, cross-sectoral collaboration for timely access to rehabilitation services is critical.

**Methods & Analysis:** This delivery model was informed by over two years of stakeholder engagement. In 2011, our organization and a broad collaboration of organizations conducted a think tank entitled â€œEquitable Access to Rehabilitation in the Context of HIV and Other Episodic Diseasesâ€. Following the think tank, in 2012, a national â€œAccess to Rehabilitation Advisory Committeeâ€ was formed and in 2013 a series of in person and phone consultations were conducted to engage stakeholders from the HIV, disability and rehabilitation sectors. These processes provided a clear road map and framework to enhance access to rehabilitation nationally.

**Study Sample or Initiative Scope:** The model is national and it supports local initiatives to promote equitable access for all people living with HIV and other episodic disabilities.

**Findings:** Some of the key issues identified include the lack of coordination between the traditionally isolated worlds of the chronic illnesses, disability and rehabilitation sectors; little integration in the continuum of care; cost and coverage; government delisting and funding; impeding health and social policies; lack of awareness and stigma. This gave direction to this national multi-sectoral collaboration and coalition model.

**Discussion:** There are some innovative rehabilitation practices across Canada. However there are few examples of delivery models whereby rehabilitation professionals are working with other members of the health care team. Such models are needed to ensure that PHAs and others with chronic conditions receive rehabilitation interventions early and seamlessly across the continuum of care.

**Conclusions:** The “National Rehabilitation Network” model shows huge potential of cross-sectoral and cross-disciplinary collaboration in education, research, policy change and programming initiatives in ensuring quality and timely access to rehabilitation services for PHAs and other people living with complex chronic conditions.

## Relevant Across Rehabilitation Populations

**Poster Number:** 29

**Title:** FALLS PREVENTION: AN INTERPROFESSIONAL APPROACH TO PATIENT CARE & SAFETY IN REHABILITATION

**Authors (Primary First):** Justin Stone; Siobhan Donaghy; Susan Schneider; Liz Williamson; Jennifer Shaffer

**Affiliation of Primary Author:** Sunnybrook Health Sciences Centre - St. John's Rehab

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** To implement an interprofessional initiative to address falls prevention and to decrease levels of harm due to falls in an inpatient rehabilitation program.

**Relevance:** Falls account for over 85% of all injury-related hospitalizations and are the leading cause of injury for seniors in Canada. Patients in rehabilitation often present with a history of falls and/or range of medical, mobility, cognitive and perceptual issues which increase their risk for future falls.

**Methods & Analysis:** An interprofessional steering team of clinical leaders conducted an evidence-based review of the literature and an environmental scan of similar facilities. A validated falls risk assessment tool was selected. Education on falls prevention and the use of the falls risk assessment tool was provided to clinicians on the patient care units. Daily interprofessional falls huddles were initiated and a huddle documentation tool was created.

**Study Sample or Initiative Scope:** Patients and clinical team members in a 4 unit inpatient rehabilitation program.

**Findings:** Team huddles have created natural and timely opportunities for daily discussions about falls prevention and many other important aspects of patient care. The incorporation of huddles and an interprofessional documentation tool has facilitated team communication regarding falls and resultant interventions. Incidence of falls causing moderate levels of harm has declined.

**Discussion:** Team falls risk assessment and huddle processes have provided opportunities for person-centred care through interprofessional collaboration, role clarification, and shared leadership in the context of falls prevention.

**Conclusions:** An interprofessional approach to falls prevention has been demonstrated to be an effective method to address patient safety in rehabilitation. Ongoing opportunities include integrating the patient and family into the team huddle process and creating processes and tools with teams in the outpatient rehabilitation context.

## Relevant Across Rehabilitation Populations

**Poster Number:** 30

**Title:** IMPROVING HAND HYGIENE IN A REHABILITATION SETTING; OVERCOMING CHALLENGES UNIQUE TO REHAB

**Authors (Primary First):** Lawrence Robinson; Rhonda Galbraith; Katherine Nazimek

**Affiliation of Primary Author:** Sunnybrook Health Sciences Centre

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** The purpose of this project was to use a multi-faceted approach to improve hand hygiene (HH) among health care practitioners at a rehabilitation hospital.

**Relevance:** Hand hygiene is an important quality indicator and prevents hospital-acquired infections that can prolong length of stay. But there are unique challenges in the rehabilitation environment, such as therapists treating multiple patients in a single physical setting, and the inclusion of a broad inter-professional team.

**Methods & Analysis:** We measured baseline HH rates using standard methodology. We introduced several interventions including: - discussion at monthly meetings, - an on-line survey to get staff perceptions, - immediate feedback to staff from hand hygiene champions, - identification of time saving strategies to perform HH, and - posters on each unit publicly displaying HH rates with comparison to other units. We continued to measure HH rates during and after initiating these changes.

**Study Sample or Initiative Scope:** The study sample consisted of >200 observations per month of health care practitioners at a rehabilitation hospital.

**Findings:** We noted a marked increase in HH compliance. This increased from 79% in the prior fiscal year to 86% in the current fiscal year to date. The most recent month was at 96% compliance.

**Discussion:** While there are unique challenges in the rehabilitation setting, there are ways to markedly improve HH rates. Maintaining high HH rates requires continuous and ongoing feedback.

**Conclusions:** Using a multi-pronged educational intervention with continuous feedback can markedly improve hand hygiene rates, even in rehabilitation settings.

## Relevant Across Rehabilitation Populations

**Poster Number:** 31

**Title:** CLINICAL NUTRITION INTERVENTION TO REDUCE RISK OF CALCIUM OXALATE KIDNEY STONES IN REHAB PATIENTS: NOT A SIMPLE COOKIE CUTTER SOLUTION!

**Authors (Primary First):** Amanda Beales

**Affiliation of Primary Author:** Toronto Rehab, University Health Network

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** Many nutrients have been linked to kidney stone formation including Vitamin C, Vitamin D, calcium and oxalate. The purpose of this literature review was to assess the strength of current evidence for the nutritional management of kidney stones.

**Relevance:** 5-10% of people develop kidney stones and periods of prolonged immobility may further increase risk. Also, history of kidney stones may be linked to lower bone density. Multiple nutrients linked to kidney stone formation are common treatments in rehab (i.e. calcium for bone health), so balancing interventions is necessary.

**Methods & Analysis:** Nutritional intervention differs between types of kidney stones. The focus of this review was limited to calcium oxalate stones, as these comprise 70-80% of all kidney stones. Risk factors include high urinary concentrations of calcium and oxalate. A literature review was completed and concentrated on two areas of focus: 1. Vitamin D and calcium intake (diet and supplements) which may increase urinary calcium. 2. Vitamin C and dietary oxalate intake which may increase urinary oxalate. Due to controversy with laboratory techniques used to measure urinary oxalate, studies from earlier than 2002 were excluded.

**Study Sample or Initiative Scope:** The review focused on subjects with a history of kidney stones, and excluded the hemodialysis population due to their impaired kidney function.

**Findings:** Vitamin C: Supportive of wound healing, supplementation >1000 mg/day may raise urinary oxalate. Vitamin D: Insufficient evidence to withhold supplementation to the RDA (600-800 IU) for those at falls and fracture risk. Calcium: With a key role in bone health, intake to the RDA does not raise stone risk and may be preventative. Oxalate: Oxalate-rich foods are part of a cardiac diet. Evidence is inconsistent that intake raises urinary oxalate.

**Discussion:** Interesting themes emerged, such as a difference between food and supplement sources. Dietary calcium and vitamin C had a lower impact on kidney stone risk than supplemental, supporting a â€œfood firstâ€ message. Similarly, high oxalate foods eaten with high calcium foods may have a lesser impact on kidney stone risk, supporting a â€œbalanced dietâ€ message.

**Conclusions:** There is insufficient evidence to restrict calcium, oxalate, vitamin D or vitamin C in patients with history of kidney stones. Promoting food before supplements is the best practice and adequate fluid cannot be overlooked as its role in stone prevention is well established. A balanced, individualized approach is required.

## Relevant Across Rehabilitation Populations

**Poster Number:** 32

**Title:** SKIN AT WORK: DEVELOPING HANDS-ON EXERCISES FOR SKIN PROTECTION TRAINING

**Authors (Primary First):** Pilar Gomez; Irena Kudla; D. Linn Holness

**Affiliation of Primary Author:** Department of Occupational and Environmental Health, St Michael's Hospital; Occupational Science & Occupational Therapy, University of Toronto

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** Few workers assessed for hand dermatitis report receiving skin protection training. To assist in the development of a training module, we are developing hands-on exercises to demonstrate the effects of irritants on the skin and glove contamination.

**Relevance:** Work-related skin disease is one of the most common occupational diseases. Previous work has demonstrated that a relatively small proportion of workers receive specific training related to workplace skin exposures and skin protection.

**Methods & Analysis:** A literature review was conducted to determine the typical program elements in a skin training module. There are very few programs described. Of those that are, hands-on exercises are listed but there is little information available about their content or actual examples. Following discussion with a clinic in Germany providing hands-on training, we developed three exercises and have created a video to demonstrate the exercises.

**Study Sample or Initiative Scope:** We have presented the hands-on exercises to health and safety personnel at an Occupational Health and Safety Conference for initial feedback.

**Findings:** Feedback from participants suggested that the hands-on exercises were useful and should be incorporated into training programs. We are creating a video to demonstrate the exercises for broader use.

**Discussion:** Skin protection training is important for both primary prevention and also when workers with hand dermatitis return to work. Having either a live demonstration or a video demonstrating the effects of irritants on the skin and glove contamination can assist in the education of the worker and workplace for return to work.

**Conclusions:** Work-related skin disease is one of the most common occupational diseases. Skin protection training is important. A live demonstration or a video showing the impact of irritants on the skin can assist educating the workplace and the worker; and facilitate safe practices and RTW.

## Relevant Across Rehabilitation Populations

**Poster Number:** 33

**Title:** COMMUNICATION OF RESOURCE MATCHING AND REFERRAL (RM&R) DATA - A CATALYST FOR CHANGE

**Authors (Primary First):** Donna Renzetti; Sailaja Potaraju; Carlos Bautista; Laura Forma; Sandra Athron; Jean McKay

**Affiliation of Primary Author:** West Park Healthcare Centre

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** To optimize referral processes and patient flow by developing a report template to communicate referral data available from Resource Matching & Referral (RM&R) - an online referral system that matches patients to appropriate clinical services.

**Relevance:** Patient flow from acute care to rehabilitation hospitals is facilitated through timely review of referrals and admission of accepted patients. Analysis of referral statistics assists in proactive identification of areas for improvement within the organization's referral review and admission processes.

**Methods & Analysis:** Referral statistics, including referral volumes, wait times and process efficiency timelines, are reviewed monthly and compared with those of all TC LHIN hospitals and peer comparators. The introduction of ORBIT - an online tool providing access to near real-time data through RM&R - facilitated more comprehensive and timely reporting of referral data. A reporting template was developed to facilitate communication with multiple stakeholders. Reports include a summary analysis and are provided monthly to care coordinators and service managers and quarterly to senior management and the Medical Advisory Committee.

**Study Sample or Initiative Scope:** Referrals for amputee, respiratory and musculoskeletal rehabilitation and complex continuing care that are received through RM&R.

**Findings:** Comparison of referral data against median values and the previous period highlights potential areas for improvement. Additional information is often necessary to provide context for the analysis, leading to the development of new internal processes to collect additional data and comments. As a result of regular referral data analysis, response time has decreased to one day or less and requests for more information (RFI) decreased by 39%.

**Discussion:** Analysis of near real-time data through RM&R facilitates monitoring of areas where further investigation or action may be required; however, as not all referrals are received through RM&R, analysis is limited. Simply inquiring to understand the data can result in positive changes. Designing a report for multiple groups is challenging and the template continues to evolve.

**Conclusions:** Regular analysis of RM&R data can identify areas where improvement may be needed and near real-time data available through ORBIT allows more timely analysis. While a wealth of data is available, contextual information may be required for a greater understanding of outliers and areas highlighted by the initial analysis.

## Relevant Across Rehabilitation Populations

**Poster Number:** 34

**Title:** CLIENT HANDLING: MOVING PEOPLE, NOT BOXES.

**Authors (Primary First):** Veronica Ghazarian; Amanda Longfield

**Affiliation of Primary Author:** Saint Elizabeth

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** To design a client-centered, evidence based client handling program to guide therapists in teaching and consulting with caregivers working with children and adults in the community.

**Relevance:** Therapists working in the community are involved with the assessment and teaching of safe client handling techniques to formal and informal caregivers in the home and school environment. There are risks involved for the therapist, organization, client and caregiver if proper client handling best practices are not followed.

**Methods & Analysis:** Evidence was explored to support safe lifting, handling and transferring guidelines for children and adults in the community setting. An analysis of the feasibility of use of available guidelines was conducted to determine the applicability and appropriateness in the community setting (school, and home). The current practices of therapists in the community were also reviewed. Consistent standardized guidelines and tools were required for practice in the community and as a result tools were designed that were appropriate and relevant for the community setting. Implementation of the program will be discussed.

**Study Sample or Initiative Scope:** A review of the client handling practices of 140 Occupational Therapists working in the community setting in the school and home environment.

**Findings:** Current literature for client handling best practices are based on material handling, and lack a client centered approach. The recommendations are intended for hospital or facility settings and do not take into consideration the complexities of the community environment which affect feasibility of use of equipment (space, structural design, funding) and unique transferring circumstances in homes/schools with pediatric and adult clients.

**Discussion:** Therapists should use evidence based practice when assessing, teaching and consulting related to client handling, minimizing the risks to therapists/clients/caregivers, and the organization. Therapists need to have resources to support their decision making process and a methodology of decision making when working with complicated client situations in the community.

**Conclusions:** A systematic approach should be followed when making decisions for client handling. Many factors need to be considered when looking at lifting guidelines due to the complex dynamic between the client, caregiver and environment. The use of a decision making framework is important so recommendations are clearly followed.

## Relevant Across Rehabilitation Populations

**Poster Number:** 35

**Title:** PARTNERING FOR REHABILITATION SUCCESS: MACKENZIE HEALTH AND SAINT ELIZABETH HEALTH CARE USE AN INNOVATIVE SERVICE MODEL TO IMPROVE REHAB CARE.

**Authors (Primary First):** Shelby Fisch; Amir Soheili

**Affiliation of Primary Author:** Saint Elizabeth Health Care

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** In 2013, Mackenzie Health partnered with Saint Elizabeth to deliver rehab services with the desire for proven clinical leadership, new and innovative rehab service delivery models, and a focus on best practices, performance and outcomes.

**Relevance:** Rehab services are vital to achieving the best possible outcomes for patients. They must be fully integrated with other healthcare services to ensure patient flow is maintained, metrics are achieved, and funding is granted. This partnership has proven to be a successful integration reflecting positive outcomes.

**Methods & Analysis:** Six key success factors that have been vital to the successful partnership between Mackenzie Health and Saint Elizabeth in implementing and operationalizing the rehab services partnership are as follows: 1.Alignment of vision and values 2.Engaged and committed leadership and staff 3.Communication and collaboration 4.Transparency and trust 5.A focus on performance and outcomes 6.An evidence-based, patient focused rehab model that is: cost effective, flexible, sustainable and responsive. A robust balanced scorecard approach is utilized to evaluate performance of rehabilitation services in the hospital.

**Study Sample or Initiative Scope:** The therapy team consist of over 80 PTs, OTs, therapy assistants, Kinesiologists and practice leaders across 10 inpatient and 9 outpatient programs.

**Findings:** Key Results include:23% increase in patient attendance days for PT and OT services, increased CMI in the Complex Care Program from 1.09 to 1.19, increased average therapy hours provided to complex care patients to 4.3 hours/week of therapy time from under 3 hours on average/week, exceeding QBP LOS targets for hip and knee replacements to under 4 days, decreased Average LOS for Stroke Rehab patients using RPG best practice for Stroke LOS.

**Discussion:** The innovative partnership between Mackenzie Health and Saint Elizabeth is generating positive results- for patients, staff, physicians and both partner organizations. A highly professional and knowledgeable rehabilitation service partner can help position a hospital's inpatient and outpatient rehab programs for success, optimizing both performance and funding.

**Conclusions:** Innovation in rehab service models, enhancing the patient experience and optimizing access to care are important strategic directions for both Mackenzie Health and Saint Elizabeth. As the healthcare system continues to evolve and patient needs grow, working together makes a whole lot of sense.

## Relevant Across Rehabilitation Populations

**Poster Number:** 36

**Title:** PILOTING A MINIMUM DATASET FOR OUTPATIENT REHABILITATION PROGRAMS

**Authors (Primary First):** Sharon Ocampo-Chan; Michael Gekas; Marie Disotto-Monastero; Charissa Levy

**Affiliation of Primary Author:** GTA Rehab Network

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** The purpose of the initiative was to identify and pilot a minimum dataset for outpatient rehabilitation programs that is feasible to collect and report on for hospital-based total joint replacement and stroke patient groups.

**Relevance:** Due to the lack of standardization in collection and reporting of data in outpatient rehabilitation, the Toronto Central LHIN Musculoskeletal/Stroke Implementation Group identified the need for this initiative to support best practice guidelines implementation across the LHIN.

**Methods & Analysis:** An outpatient rehabilitation data working group was established to implement this initiative. The working group identified and validated data indicators from the access and transition, and financial performance quadrants of the GTA Rehab Network Performance Framework for the pilot initiative. Six organizations participated in the pilot data collection initiative that extended from November 1, 2013 to March 31, 2014. Data submitted and analyzed for the two reporting periods were used to identify process and data integrity issues.

**Study Sample or Initiative Scope:** This initiative focused on hospital-based outpatient rehabilitation programs for total joint replacement and stroke patient groups.

**Findings:** The working group was able to identify and share strategies to resolve many issues including standardizing definitions and re-categorizing data elements collected. This initiative also facilitated change management in standardizing the reporting process. Following the pilot, two data indicators missing in the pilot that would further enhance analysis were recommended to be part of the minimum dataset.

**Discussion:** The initiative informed what data indicators were meaningful in monitoring best practice implementation such as timely access to rehab. Lessons learned throughout this initiative have also been shared with a Rehabilitative Care Alliance task group to inform their work at a provincial level.

**Conclusions:** The initiative was a valuable experience in identifying what the minimum dataset should include, and in standardizing the collection and reporting of data indicators within participating organizations. Further work is needed to look at the applicability of the piloted dataset with other patient groups.

## Relevant Across Rehabilitation Populations

**Poster Number:** 37

**Title:** CREATING STARS: REHABILITATION TO COMBAT DECONDITIONING POST-HOSPITALIZATION

**Authors (Primary First):** Krystina Malakovski; Zoya Dobrusin; Yoosun Choi; Karen Boyle; Karl Zabjek; Frances McCulligh; Maria Lung

**Affiliation of Primary Author:** Southlake Regional Health Centre

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** Evaluate the effectiveness of the Short-Term Active Reconditioning (STAR) program at Sunnybrook's St. John's Rehab (SSJR) on restoring the level of physical function of medical patients with deconditioning to that which enables them to return home.

**Relevance:** Hospitalization often results in decline in patients' functional abilities. Rehabilitation service gaps exist for medical patients who have become deconditioned during an acute hospital stay. Evaluation of a program that addressed these gaps brings into light its value and aids in the advocacy of future program development.

**Methods & Analysis:** Retrospective chart reviews of the STAR program patients over the 2012-14 fiscal years at SSJR were done to collect pre-hospitalized demographics and clinical data; physical functional data on admission and discharge; and discharge destinations. Descriptive statistics were used to describe the clinical profiles of patients and their various discharge destinations. Wilcoxon signed-rank tests assessed differences in patients' physical functional status from admission to discharge, and Spearman correlations to examine if physical factors at admission related to patients' length of stay (LOS) in rehabilitation.

**Study Sample or Initiative Scope:** After excluding patients who returned to acute care for over 30 days (n=39), voluntarily left (n=2), or were outliers (n=4), 243 charts were reviewed.

**Findings:** The majority of patients were elderly with a median age of 83 years, and 87% were discharged to their pre-admission living environment. At discharge from the STAR program, the motor subscale of the Functional Independence Measure (FIM) and measures of physical functional status showed significant improvement ($p < .001$). Berg balance scores and 3 of 4 FIM motor subscale categories on admission had moderate correlations with rehabilitation LOS.

**Discussion:** The patient profile of our sample coincides with data from the National Reporting System for 2013-14. Changes in median total FIM scores from admission to discharge are also consistent with the 2013 Canadian Institute for Health Information report. The relationships of physical measures with rehabilitation LOS have potential to guide LOS prediction and discharge planning.

**Conclusions:** The STAR program was effective in increasing the physical functional level of deconditioned patients to the point of enabling them to return home typically within three weeks. Awareness of the STAR program's ability in enhancing the flow of patients along the healthcare system should be promoted among acute care hospitals.

## Relevant Across Rehabilitation Populations

**Poster Number:** 38

**Title:** ARE THERE ENOUGH REHABILITATIVE CARE BEDS IN OUR LHIN TO MEET THE NEEDS OF OUR POPULATION FOR THE NEXT DECADE?

**Authors (Primary First):** Helen Johnson; Pete Crvenkovski; Nancy Snobelen; Deborah Willems

**Affiliation of Primary Author:** Chatham-Kent Health Alliance

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** A priority in the 2012 ESC LHIN Rehabilitation Strategic Plan included appropriate rehabilitative care system capacity. A predictive model for utilization and growth was developed to determine sustainability of bedded programs over the next decade.

**Relevance:** The aging population and reforms to health system funding necessitate appropriate availability of rehabilitative care services to maximize patient experience, outcomes, and optimal system utilization. Best practices for patients with stroke, hip fracture and frailty require an assessment of demand for bedded levels of care.

**Methods & Analysis:** Working with a consulting firm, utilization data for all levels of bedded rehabilitative care for fiscal years 2011-13 was obtained. Data was aligned to the draft new Definitions Framework for Bedded Levels of Rehabilitative Care in development by the Rehabilitative Care Alliance, and stratified by patient groups. The base case model projected required beds using Ministry of Finance population projections assuming no changes in admission patterns. Alternative scenarios, such as increasing admission targets, or diverting some admissions to community programs, allowed for assessment of impact on bed needs.

**Study Sample or Initiative Scope:** A LHIN-wide System Capacity Working Group contributed to the planning, and discussion of various utilization scenarios to study using the model.

**Findings:** A range of bedded programs in the LHIN added complexity to the model. Complete data was unavailable for all programs for the full period, necessitating some calculations of annualized admissions. Projecting bed needs for care of patients with hip fracture and stroke was straightforward. Medically complex patients proved more challenging, and comprised a large proportion of utilization, particularly of complex care and convalescent programs.

**Discussion:** This predictive model provided a methodology for projecting rehabilitative care bed days required by patient groups for the coming decade. Target levels for admissions aligned with funding reforms were available for stroke and hip fracture. Developing scenarios to test capacity for medically complex and frail seniors without established targets required much discussion.

**Conclusions:** Predictive modeling for rehabilitative system capacity was a complex endeavor. Length of stay, occupancy rates, referral patterns/targets, community services, and population aging were important factors. Functional loss levels in hospitalized seniors described in the literature provided a method to fully test the model.

## Senior-Focused Care

**Poster Number:** 39

**Title:** RAPID RECOVERY SERVICES (RRS) - HELPING PATIENTS MEET THIER REHAB NEEDS AT HOME VS HOSPITAL

**Authors (Primary First):** David Fry

**Affiliation of Primary Author:** Mississauga Halton CCAC

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** Rapid Recovery Services (RRS) is a new service that provides enhanced rehab services in a patient's home. It facilitates patient flow in hospitals and allow patients to return home as soon as possible.

**Relevance:** RRS help patients,18 years of age or older, to recover as much as possible from lost/impaired function, loss of ability to perform life functions/recovering from injury in their preferred place of choice, home. Patients receive service within 24 hours after leaving hospital. Intensive rehab initiated including daily PT.

**Methods & Analysis:** Development of RRS is a proactive measure designed to enable patients to have a safe, timely discharge from hospitals and help them recover by providing enhanced rehab services in their homes. Program facilitates patient flow in hospitals and allows patients to return to their homes as quickly as possible. Health professionals develop a personalized care plan for patients and arrange for the ideal level of rehab services they need to recover at home. Patients receive needed care to recover at home & precious spaces in hospital are available for new patients in need of treatments available only in hospital.

**Study Sample or Initiative Scope:**

- High needs chronic adult/senior population
- Average RAI = 12 high needs
- MAPLe score- 73% moderate/high
- CHESS = 1 and 2s

**Findings:**

- 82%service plan completed; goals met Utilization
- PT - 7 visits on average
- OT - 3 visits on average
- PSW - 5 hours on average

Cost $1,984 per patient (includes OT, PT, PSW and nursing costs)

ALC Rehab Days
Hospital 04-12/13 pre impl'n 01-03/14 post impl'n
A 175 days 106 days
B 165 " 164 "
C 54 " 103 " * increased because program not rolled out to until late Feb/early March

**Discussion:** Service is designed to manage lost or impaired functional ability, rehabilitate to independence and/or restore to optimal function and prevent further decline.

- Patients experience safe and timely discharge from hospital and recover safely in their own home
- System cost savings

**Conclusions:** Benefits include:

- Enhanced continuity of care for patients when leaving hospital
- Improved patient outcomes
- More efficient use of the health system

## Senior-Focused Care

**Poster Number:** 40

**Title:** OPTIMIZING BOWEL HEALTH IN GERIATRIC REHABILITATION

**Authors (Primary First):** Carol Skanes; Wanda Kiersnowski

**Affiliation of Primary Author:** UHN

**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** Hospitalized older adults with multiple co-morbidities experience significant challenges in optimizing their bowel health and rehabilitation nurses are in the ideal position to support patients through their journey from acute care to rehab.

**Relevance:** Older adults frequently experience alteration in bowel habits due to multiple factors which are often exacerbated by illness and hospitalization (Franklin, 2012). These alterations often result in medical complications that can interrupt participation in rehab, impact progress towards goals and impair quality of life.

**Methods & Analysis:** A multi-faceted strategy was guided by principles of Interprofessional collaboration, adult learning principles, and rehabilitation nursing competencies. Components of the strategy included: delivery of educational sessions, implementation of nursing interventions to enhance healthy bowel function, introduction of the Bristol Stool Chart for assessment, patient education, evaluation, and team communication as well as practice support at the bedside. Evaluation methods included auditing documentation, communication at team rounds, and prevalence of constipation post-implementation.

**Study Sample or Initiative Scope:** The Interprofessional team serves patients with multiple chronic conditions including those with end stage renal disease receiving hemodialysis.

**Findings:** The number of patients meeting the Rome III criteria for constipation decreased from 53% to 22% post-implementation and adherence to the use of the Bristol Stool Chart was 95%. Embedding the new tool into existing documentation facilitated uptake. Involving the Interprofessional team helped to change the culture on the unit. Ongoing mentoring of staff and bedside support is important for sustainability of the initiative.

**Discussion:** Older adults in rehab have both intrinsic and extrinsic factors that predispose them to constipation. Complications related to impaired bowel function can include syncopal episodes, fecal impaction, changes in appetite, and nausea and vomiting (Rao & Go, 2010). These complications can result in failure to meet rehab goals and can impact quality of life.

**Conclusions:** This multifaceted strategy resulted in positive changes in patient outcomes, team communication and unit culture. This initiative has resulted in increased awareness of constipation, timely intervention, and ongoing evaluation of interventions supporting attainment of patients' rehab goals.

## Senior-Focused Care

**Poster Number:** 41

**Title:** COMMUNITY BASED FALLS PREVENTION PROGRAMS: WHAT HAVE WE LEARNED SO FAR AND WHERE DO WE GO FROM HERE?

**Authors (Primary First):** Debbie Anita Mendelson; Catherine Brookman; Sujata Ganguli; Nancy Jones; Amanda Kisielewski; Kristen Parise; Wendy Robertson

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**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** To describe participant characteristics and outcomes of Community Based Falls Prevention Programs (CBFPP) implemented by 2 agencies. To discuss standardization of data to facilitate appropriate identification of individuals for these programs.

**Relevance:** One in three older adults will fall in a year with 50% experiencing repeat falls. As part of MOH physiotherapy reform, our 2 agencies received funding to deliver CBFPPs in a variety of community settings. Consistency of measurement and analysis of outcomes will assist in future planning of targeted effective programming.

**Methods & Analysis:** Our two agencies implemented CBFPPs in 18 sites across the TC LHIN. The Stand Up program in 11 sites and a similar education exercise program in 7 sites. Both programs involve a 10 -12 week falls prevention education and exercise module and are delivered by a regulated health professional. Class size ranged from 6-12 participants. Individuals are identified for the program by retirement home (RH) care staff, CCAC care team and self-referral. All individuals were assessed for suitability. Demographic information and mobility measures such as timed stands, functional reach and timed up and go (TUG) were collected.

**Study Sample or Initiative Scope:** In a 4 month period a total of 239 participated in the falls program. There were 6 RHs (n=82) and 12 community sites (n=157) between the 2 agencies.

**Findings:** In comparing settings, there was an average age range of 87.7 - 88.7 for RHs and 75.6 - 82.9 for community sites. RH participants were frailer(5.6 vs.4.7 Rockwood Frailty Score, more likely to use a gait aid(81% vs.56%)and had lower mobility measures at baseline. Outcome evaluation revealed that participants showed statistically significant improvements in TUG, functional reach and timed stands.

**Discussion:** Findings reveal a frail, very elderly, at risk population especially in the RHs. It is clear from the data that both groups respond to fall prevention interventions with significant improvement in balance and mobility outcomes; however, the degree of improvement varies and appears related to participant characteristics such as age, frailty, and number of classes attended.

**Conclusions:** At risk seniors can benefit from falls prevention interventions. Future plans include exploring opportunities to standardize data collection utilizing evidence based programming. Ultimately, this will enable coordination and integration of community services that lead to maximizing opportunities to maintain independence.

## Spinal Cord Injury

**Poster Number:** 42

**Title:** THE IMPACT OF BEST PRACTICE IMPLEMENTATION FOR PRESSURE ULCER PREVENTION FOLLOWING SPINAL CORD INJURY (SCI) IN AN INPATIENT REHABILITATION PROGRAM

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**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** To implement two best practices for pressure ulcer (PU) prevention in inpatient SCI rehabilitation: (1) complete PU risk assessment (RA) and individualized interprofessional PU prevention plan (PUPP); and (2) provide PU prevention patient education.

**Relevance:** The pan-Canadian SCI Knowledge Mobilization Network (SCI KMN) was formed to address best practice implementation (BPI) in SCI rehabilitation, with an initial focus on PU prevention. PUs affect rehabilitation outcomes and are an ongoing risk for individuals with SCI. This abstract describes BPI efforts at one SCI KMN site.

**Methods & Analysis:** The systematic use of Implementation Science laid the groundwork for sustainable BPI. Two tools were introduced: 1) the SCI-specific PU RA scale (SCIPUS); and 2) a new inter-professional PUPP for use in team rounds. The SCIPUS replaced the Braden RA. The PUPP was created with extensive clinician involvement and centralizes PU risk factors for interprofessional communication. The focus for patient education was on documentation and enhancing adult education principles. BPI outcomes (completion rates for RA, PUPP, and patient education), and patient outcomes (PU incidence, education pre-discharge survey) were evaluated.

**Study Sample or Initiative Scope:** Data was extracted via chart review for all patients admitted to the inpatient SCI rehabilitation centre between Jan 2012 and April 2014 (n=616).

**Findings:** PU RA completion rates increased to 81% from 29% after SCIPUS implementation. In the year following implementation, PUPP rates were 76%. Documented PU education increased to 74% from 26% pre-implementation. Positive patient survey responses to “I will use the skin care education in my daily life” increased to 78% from 58%. PU incidence decreased to 9% from 13% in the year after SCIPUS implementation. PU incidence was 12% the following year.

**Discussion:** Implementation science provided a framework for successful implementation of targeted PU best practices. PU incidence dropped after SCIPUS implementation and remains below pre-implementation levels, similar to reported SCI rehabilitation PU incidence of 10%-13% (Wang et. al 2014; DeJong et. at 2014). Ongoing improvement cycles will address challenges and sustain BPI.

**Conclusions:** Targeted PU practices have been implemented successfully. PU prevention in SCI is a complex multifactorial issue and ongoing BPI can support continued PU reduction. The implementation expertise developed for PU best practices lays the groundwork for future BPI, within the SCI KMN and in the wider rehabilitation community.

## Spinal Cord Injury

**Poster Number:** 43

**Title:** INTEGRATING GOAL SETTING, PATIENT EDUCATION AND DISCHARGE PLANNING IN SPINAL CORD REHAB: THE DEVELOPMENT OF SELF-MANAGEMENT SUPPORT FOR SPINAL CORD INJURY (SMS4SCI)

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**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation

**Abstract**

**Purpose:** To create an inter-professional rehab process integrating goal setting, education and discharge planning and includes: comprehensive patient-focused plan; processes to enhance inter-professional communication, collaboration and patient engagement.

**Relevance:** This initiative facilitated practice change to integrate 3 key rehab elements: goal setting, education and discharge planning and developed a framework for inter-professionalism. SMS4SCI applies the concepts of â€œpatients as partnersâ€ and inter-professional collaboration to drive optimal rehabilitation outcomes.

**Methods & Analysis:** Toronto Rehab Best Practice Process was used to guide implementation. Patient Need was identified through satisfaction data, chart audits and focus groups; Present Practice was reviewed; Best Practices were determined through literature review and benchmarking; Gap Analysis identified key opportunities for improvement. Clinical tools and processes based on Domains of SCI rehab were created followed by staff education and stakeholder engagement. New forms and processes were piloted followed by evaluation and staff feedback leading to program-wide roll-out of a new approach, Self-Management Support for SCI (SMS4SCI).

**Study Sample or Initiative Scope:** This initiative has been implemented across three inpatient units in a 60-bed spinal cord rehabilitation program.

**Findings:** SMS4SCI has led to more comprehensive, patient-focused SCI rehab. Deliverables include Intro to SCI domain and learning styles assessments; rounds and family meeting forms; â€œIt's Teamworkâ€ poster outlining interprofessional roles across SCI domains. Pre-implementation surveys were completed by 20 patients and 36 staff. Rounds based on SCI domains improved interprofessional collaboration. Post-implementation survey results will be presented.

**Discussion:** SMS4SCI processes have led to a culture shift within SCI rehab team. A shift from profession specific to domain-based rounds discussion has led to more collaborative, comprehensive discussions. A domains-based approach results in a more comprehensive view of patient needs and priorities during rehab. Patients informed of all aspects of rehab are more actively engaged.

**Conclusions:** Early SMS4SCI results suggest that this integrated, patient-focused, interprofessional approach enhances overall patient experience in SCI rehab and improves team communication. Patients have increased awareness of the breadth of rehabilitation and learning possible during and after their in-patient SCI rehabilitation.