

## Brain Injury / Neuro / Stroke

**Poster Number:** 1

**Title:** Paradigm Shift in Parkinson's Disease Rehabilitation: A Neuroimaging Approach to Quantify the Efficacy of Dance as a Multimodal Neurorehabilitation Intervention

**Authors (Primary First):** Remy Cohan; Karolina Bearss; Rebecca Barnstaple; Sophia Maguire; Prabhjot Dhami; Joseph DeSouza

**Affiliation of Primary Author:** York University

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

### ABSTRACT

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**Purpose:** A multimodal approach, such as dance, where sensorimotor integration combines cognitive, physical, and psychosocial models of rehabilitation, could potentially improve movement, rigidity, mood, ADLs and delay the progression of disease.

**Relevance:** In an era where home care is the preferred method of continuing care, and healthcare dollars are scarce. Implementing new and effective out-patient rehabilitation programs are crucial. Also, given the pathophysiology of PD, a multimodal intervention such as dance could improve physical and neuropsychological symptoms of PD

**Methods & Analysis:** We investigated single, and multiple dance classes to evaluate short and long-term effects of dance therapy in patients with PD. In order to quantitatively measure the benefits of dance as an intervention, we stratified our PD cohort using H&Y scale, and incorporated neuroimaging techniques such as resting state electroencephalography (rsEEG), functional MRI (fMRI), and clinical scales such as MDS-UPDRS, PD NMS, MMSE, PANAS-X, before and after dance classes to measure mood, neural alpha rhythm, neural activities, and motor and non-motor symptoms.

**Study Sample or Initiative Scope:** In the cross-sectional group N=38(PD=17,HC=12).In the longitudinal cohort we followed N=16 PD patients, and scanned 10 patients with PD using fMRI.

**Findings:** In both cross-sectional and longitudinal cohorts, motor, and affective improvements were noted. Also, we were able to see a marked increase in post-therapy rsEEG alpha power. And in the fMRI group PD patients were scanned while performing kinetic motor imagery(KMI) to a dance they learned in their dance class, where increased neural activity in basal ganglia, supplementary motor area, and superior thalamic sulci was observed.

**Discussion:** Multiple Cochrane reviews have shown impartial results to support or refute current rehabilitation practices for PD. Our results show that dance therapy not only improves cortical activities, and increases brain waves associated with the pathogenesis of PD, but could potentially improve movement, rigidity, mood, ADLs and delay the progression of the disease.

**Conclusions:** A multimodal group approach such as dance therapy, where multiple proven non-pharmaceutical, and non-surgical treatments of PD are combined into a single activity could improve both motor, and non-motor symptoms of the disease, and is a cost-effective substitute for the current out-patient guidelines.

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## Brain Injury / Neuro / Stroke

**Poster Number:** 2

**Title:** Reliability of Stroke-Specific Protocols to Enhance the Clinical Utility of the 10-Metre Walk Test and 6-Minute Walk Test in People with Acute, Subacute, and Chronic Stroke: Preliminary Results

**Authors (Primary First):** Darren Cheng; Nancy Salbach; Michelle Nelson; Dina Brooks

**Affiliation of Primary Author:** Rehabilitation Sciences Institute, University of Toronto

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

### ABSTRACT

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**Purpose:** The purpose of this study is to evaluate the test-retest reliability of recently adapted standardized protocols for the 10-metre walk test (10mWT) and 6-minute walk test (6MWT) in ambulatory people with acute, subacute, and chronic stroke.

**Relevance:** Standardized stroke-specific protocols that allow physical assistance to walk, include pictorial instructions for aphasia and can be conducted on a 15-metre (m) walkway will be useful for assessing people with a wide range of stroke-related deficits and feasible to conduct in settings without access to a 30-m walkway.

**Methods & Analysis:** Participants are recruited from inpatient and outpatient settings. Two assessments are completed 1-2 days apart. Data on sociodemographic and stroke characteristics are collected at first assessment. The 10mWT, and 6MWT conducted twice with a 15-m (6MWT15m) and a 30-m walkway (6MWT30m), are completed at both first and second assessment. Participants that require physical assistance to walk are provided it at both assessments. In a preliminary analysis, mean and median scores for 10mWT speed and 6MWT distance (D) at time 1 and 2 were compared to evaluate test-retest reliability and Bland-Altman plots were constructed.

**Study Sample or Initiative Scope:** A sample size of 32 is expected. Data from 9 adults receiving rehabilitation for stroke-related walking deficits are available as of Jan. 15 2018.

**Findings:** Preliminary analysis included 4 men and 5 women (median age 58) 1-9 months post-stroke, 4 inpatients and 5 outpatients, 1 requiring assistance to walk. At time 1 and 2, mean speed was 1.1m/s and median speed was 1.2m/s. Mean 6MWD15m was 323.7m at time 1 and 334.1m at time 2. Median 6MWD15m was 348.1m at time 1 and 370.5m at time 2. Mean 6MWD30m was 348.6m at time 1 and 374.6m at time 2. Median 6MWD30m was 379.8m at time 1 and 393.1m at time 2.

**Discussion:** Support for reliable standardized stroke-specific protocols will promote their use in clinical and research settings. Their use will allow detection of improvement and deterioration of walking ability

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during rehabilitation, help improve patient education about their walking ability and facilitate comparison across studies, patients, and within patients across settings.

**Conclusions:** Results for reliability are as expected and support continuing recruitment. Test-retest mean and median scores are similar for each test and differences in mean, median and individual scores are similar to minimal detectable change values found in previous research. Updated analyses will be presented at time of conference.

## Brain Injury / Neuro / Stroke

**Poster Number:** 3

**Title:** Patient Experience and Satisfaction with a New Cognitive-Augmented Mobility Program (CAMP) for Survivors of Stroke

**Authors (Primary First):** Katherine Dittmann; Kay-Ann Allen; Ashley Bergner; Joyce Chen; Elizabeth Inness; Beth Linkewich; Sandra Pacione; Jennifer Shaffer; Ada Tang; Sara McEwen

**Affiliation of Primary Author:** Sunnybrook Research Institute

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

### ABSTRACT

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**Purpose:** To explore participant experience and satisfaction with a new cognitive augmented mobility program (CAMP) that combined best evidence for gait and mobility training for survivors of stroke with the best evidence for cognitive strategy training.

**Relevance:** Shared decision-making, inclusion of patient preferences, practicing meaningful tasks and understanding how therapy will achieve a goal (all aspects of CAMP), lead to increased patient satisfaction. Satisfaction has a positive impact on clinical effectiveness, adherence, attention to preventative care and quality of life.

**Methods & Analysis:** Eight participants attended 90-minute individualized goal-oriented, task-specific exercise sessions in a group format, 2x/week for 8-weeks. Participants were taught the goal-plan-do-check cognitive strategy derived from the CO-OP Approach™, had 1:1 sessions each week with a physiotherapist (PT) to focus on goal practice and cognitive strategies and 60-75 minutes of individualized exercise performed in a group setting. Satisfaction with the program was explored through a content analysis of participant interviews and descriptive analysis of a satisfaction and intent-to-use questionnaire.

**Study Sample or Initiative Scope:** Two groups of 4 participants post stroke, post usual care, with mobility goals, able to walk at least 3 metres, and who were able to follow directions

**Findings:** Satisfaction surveys were administered to 4 participants. All strongly agreed they were satisfied with CAMP, would continue to use skills learned, the PT understood their goals, there was shared-decision making and the approach used to achieve their goal was best for them. Interviews corroborated those findings, and highlighted satisfaction with working on personally-important goals and the high degree of collaboration with the PT.

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**Discussion:** CAMP was designed to be client-centered, involving the patient in goal setting and decision making while attending to individual preferences. Patients were satisfied with the program, which may contribute to better overall outcomes. The importance of including patient satisfaction in program development is vital to the long-term success.

**Conclusions:** Participants reported positive experiences, satisfaction, and intent to continue to use lessons learned in program. The novel CAMP program merits further study with greater numbers as a potential new approach to post-stroke mobility rehabilitation.

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## Brain Injury / Neuro / Stroke

**Poster Number:** 4

**Title:** Site Champion Perspectives Following a Multifaceted Knowledge Translation Intervention for a Cognitive-Strategy Based Approach to Stroke Rehabilitation: Cognitive Orientation to Daily Occupational Performance

**Authors (Primary First):** Kay-Ann Allen; Katherine Dittmann; Elizabeth Linkewich; Jennifer Hutter; Michelle Donald; Sara McEwen; Alexandra Patel; Anne Hunt

**Affiliation of Primary Author:** Sunnybrook Research Institute: St. John's Rehab Program

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

### ABSTRACT

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**Purpose:** The purpose of this project was to understand site champions' perspectives about the implementation of the Cognitive Orientation to daily Occupational Performance (CO-OP) approach following a multifaceted knowledge translation (KT) intervention.

**Relevance:** Stroke patients with cognitive impairments are often denied access to inpatient rehab. A reported knowledge-to-clinical practice gap has been identified as a contributing factor. CO-OP is a cognitive-strategy based approach used to optimize functional outcomes for stroke survivors including those with cognitive impairments.

**Methods & Analysis:** A semi-structured focus group, facilitated by a member of the research team not directly involved in the KT intervention, was used to explore the experiences of implementing the CO-OP approach within stroke teams. The session was audiotaped, transcribed verbatim and analyzed using an inductive thematic approach. Initial codes were derived a priori from a known KT framework; data were extracted from transcripts and grouped according to codes. Themes within each code were identified separately and compared by two CO-OP KT researchers. Member checking was conducted to ensure that themes were representative of the data.

**Study Sample or Initiative Scope:** Eight (8) of 10 site champions participated, comprised of occupational therapists, physiotherapists, and a speech language pathologist.

**Findings:** Themes that influenced CO-OP implementation were identified as: system influence, iterative development of evidence and clinician characteristics. Despite a lack of population specific evidence, clinicians who expressed willingness to try the new approach reported positive patient outcomes, improved goal setting and improved interprofessional communication. "We just jumped right into it and said 'that's CO-OP, let's try it!' ... And it did work".

**Discussion:** Participants built their own personal evidence for CO-OP by attempting the approach with patients despite challenges. This was reportedly a major facilitator for integrating CO-OP into individual and interprofessional practice. Seeing positive results in patients helped to overcome the reported challenges of integrating CO-OP with clinical duties and sustained its use.

**Conclusions:** Despite the challenges with implementation, attempting the CO-OP approach led to reported positive patient outcomes, increased knowledge and confidence with using the approach and, improved interprofessional communication and client-centred goal-setting.

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## Brain Injury / Neuro / Stroke

**Poster Number:** 5

**Title:** Remote Delivery of Cognitive Behaviour Therapy to Patients with Chronic Brain Injury: A Randomized Control Trial

**Authors (Primary First):** Robin Green; Cheryl Bradbury; Brenda Colella; Alana Changoor; Anna Cook; Marika Dabek; Liesel-Ann Meusel; Lily Miguel-Jaimes; Lesley Ruttan; Alana Tibbles

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

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

### ABSTRACT

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**Purpose:** To replicate and extend our previous findings on the efficacy of CBT for brain-injured patients in both face-to-face and teletherapy settings using a larger sample size and randomized control trial design.

**Relevance:** Many ABI patients have significant emotional distress, but relatively few receive treatment. Validation of the efficacy of CBT for this population, and moreover using a remote delivery approach, will promote the delivery of much-needed talk therapy to this population.

**Methods & Analysis:** A pre- vs. post-treatment, randomized control trial design was employed. Two follow-up time points were also included (1 month and 6 months following cessation of treatment). We sampled from two facilities employing strict inclusion/exclusion criteria, and employed group x time ANCOVAs to analyse the findings. There were 4 groups in the study: (1a) CBT teletherapy, (1b) Education control teletherapy, (2a) face-to-face CBT, (2b) face-to-face education control. Outcomes included the SCL-90, PAI, DASS and Ways of Coping.

**Study Sample or Initiative Scope:** The target sample is 100; N=64 is the sample size recruited to date and presented here. Participants were adults with moderate-severe brain injury

**Findings:** Both face-to-face and remote (teletherapy) patients receiving CBT showed significantly greater reduction in emotional distress, and depression and anxiety symptoms as compared to respective education control subjects. Benefits were retained at 1- and 6 months post-treatment. Escape-Avoidance coping showed a trend towards improvement (i.e., decrease) in the treatment vs. respective control groups.

**Discussion:** CBT can be delivered remotely to patients in the chronic stages of brain injury for reducing emotional distress and ameliorating symptoms of mood disturbance. Remote delivery reduces healthcare costs and reduces barriers to receiving treatment for this very vulnerable population.

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**Conclusions:** Emotional distress in people with acquired brain injury is amenable to talk-therapy. CBT can be delivered to them regardless of where they live, and our findings showed enduring results. Remote delivery allows for patients living remote from treatment centres or with mobility restrictions to receive much-needed therapy.

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## Brain Injury / Neuro / Stroke

**Poster Number:** 12

**Title:** Family Support Groups Promotes Treatment Efficacy and Reduces Caregiver Strain.

**Authors (Primary First):** Jennifer Derrough-Nelson; Wendy Spenst

**Affiliation of Primary Author:** The Ottawa Hospital - Robin Easey Centre

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

### ABSTRACT

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**Purpose:** The treatment approach and design was based on observations that cognitive rehabilitation was less efficient when family members were not included in receiving education adjustment support regarding their family members acquired brain injury.

**Relevance:** Family members who are provided education and support express the increased knowledge and understanding reduces frustration, stress, and potential for caregiver burnout, and increased adjustment processes, as well as increases their understanding and their support of the patients engagement in the rehabilitation treatment.

**Methods & Analysis:** The aim of the education is to: increase family /caregivers knowledge and understanding of the sequela of an ABI, reduce frustration, stress, and potential for caregiver burnout, and increase adjustment processes, understanding and engagement in the rehabilitation treatment and daily support required of their family members.

**Study Sample or Initiative Scope:** Family members and caregivers are referred from The Ottawa Hospital Rehabilitation Program, and are screened for readiness to attend the group.

**Findings:** Attendees of the Family and Caregiver Support Group have indicated they have found the education provided valuable in increasing their understanding of ABI, and decreased their frustration and stress when managing the care needs of a family member with an ABI. The common statement from families is the lack of understanding/resources in the community of how an ABI/TBI impacts the family.

**Discussion:** The study will seek to determine an appropriate timeline and method for family members to receive support, within a group setting to reduce the risk of burnout, compassion fatigue and trauma on the caregiver and family members.

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**Conclusions:** Ongoing research to discuss the specific education and resources to families and sequencing of educational material / resources, to optimize rehabilitation, is required. As well as to assess this model for other areas of rehabilitation.

## Brain Injury / Neuro / Stroke

**Poster Number:** 13

**Title:** Improving Access to Stroke Rehab for Patients Requiring Hemodialysis: Results and lessons learned from a pilot study

**Authors (Primary First):** Donna Cheung; Jacqueline Willems; Klm Sterling; Michael Calvert; Jackie Eli; Usha Thomas; Shelley Sharp; Elizabeth Linkewich; Nicola Tahair; Sylvia Quant

**Affiliation of Primary Author:** Toronto Stroke Network

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

### ABSTRACT

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**Purpose:** The purpose of the pilot was to understand the demand and resources needed to support on-site hemodialysis (HD) for inpatient rehabilitation (IR) patients including stroke, and examine the impact of this work to support local/regional planning.

**Relevance:** Canadian stroke best practices stipulate timely access to IR is essential for optimal recovery, yet there is limited access to rehab for stroke patients also requiring HD. As benefits are noted for on-site HD, it was important to understand what was required to ensure more equitable access to IR and on-site HD for these pa

**Methods & Analysis:** In partnership with 2 rehab organizations with HD capacity, a pilot was implemented at one of the facilities. It entailed adding 2-3 dedicated on-site HD spots for inpatient rehabilitation patients. Existing resources and staffing ratios were leveraged. Data collection involved manual collection of demographic data, referral information, and patient outcomes. Patient volumes were abstracted from the CIHI Discharge Abstract Database. To gather patient experience, semi-structured interviews were conducted. Descriptive statistics and case reviews were used to analyze patient, site and system-level data.

**Study Sample or Initiative Scope:** From October to July 2016, 62 rehab patients requiring HD were referred to the pilot site. Patients had multiple diagnoses including stroke.

**Findings:** 42 patients were accepted with 8 being admitted, 5 of whom went home after IR. Data suggest a demand for on-site HD services for all IR patients. Increasing these services would reduce wait times and promote timely access to IR and on-site HD services. Patients interviewed reported full participation in rehabilitation and decreased stress for themselves and their family in knowing that they did not have to travel to their HD appointments.

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**Discussion:** Lessons learned from this pilot will help to inform local and system planning for rehabilitation patients requiring dialysis. Ongoing discussions between rehabilitation hospitals are underway to build capacity for these patients. This pilot could serve as a demonstration project to support equitable access to IR for patients with other complex needs.

**Conclusions:** Data suggests a demand for dedicated on-site HD services for those requiring IR. More capacity for on-site HD in IR is required at a systems level for patients with complex needs. This study also demonstrates the possibility of garnering enhanced collaborations between stakeholders through small tests of change.

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## Brain Injury / Neuro / Stroke

**Poster Number:** 14

**Title:** Achieving Best Practice through Collaborative Learning

**Authors (Primary First):** Valerie McWhinnie; Stephanie Middleton; Danielle Chitussi

**Affiliation of Primary Author:** Providence Healthcare

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

### ABSTRACT

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**Purpose:** Does providing a collaborative learning approach improve Physiotherapists' (PTs) ability to implement best practice guidelines?

**Relevance:** Providence Healthcare PTs are challenged by reduced lengths of stays and increasing patient complexity. It can be difficult to consolidate learning from external education to implement best practice guidelines. Collaborative learning may enhance knowledge transfer in the workplace.

**Methods & Analysis:** After being invited to partake in an aerobic fitness study, PTs re-evaluated their current implementation of best practice guidelines for aerobic fitness. Surveys were administered to PTs across all program areas which identified a gap in knowledge and confidence in this area of practice. PTs attended an aerobic fitness workshop lead by experts in this area. To consolidate this education PTs engaged in smaller group learning sessions and one to one peer support. Surveys were re-administered to PTs and the number of submax test administered were tracked.

**Study Sample or Initiative Scope:** 30 physiotherapists in 3 different program areas, with varied level of work experience, participated in aerobic training.

**Findings:** Since specific aerobic education and training physiotherapists have greater confidence in applying the best practice aerobic guidelines. Prior to this intervention no applicable patients had received a submax exercise test while participating in therapy at Providence Healthcare. 6 months post intervention over 40 patients have completed submax exercise testing.

**Discussion:** Targeted educational approach completed in a large group setting allows PT to effectively consolidate learning and apply best practice guidelines. Our findings suggest that organizations should consider a collaborative learning approach to improve compliance with best practice guidelines. Clinicians may also benefit from a post education sustainment plan.

**Conclusions:** Collaborative education supported by an organization improves PTs ability to implement best practice. - Post education sustainment plans improves knowledge transfer into workplace.

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## Brain Injury / Neuro / Stroke

**Poster Number:** 15

**Title:** Early Outpatient Referral Process

**Authors (Primary First):** Tiffany Wu; Jennifer Joachimides; Kelly Tough; Valerie McWhinnie; Meghan Rumford; Sharon Crossan; Sammy Joie Mok

**Affiliation of Primary Author:** Providence Healthcare

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

### ABSTRACT

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**Purpose:** To optimize the patient experience by providing a more seamless transition between Inpatient and Outpatient Stroke and Neuro Rehab programs and streamline the outpatient referral process.

**Relevance:** This initiative serves to align care with stroke best practices, improve utilization of stroke outpatient services, and to enhance system efficiencies. It also serves to optimize communication with patients and caregivers around the transition between the inpatient and outpatient programs.

**Methods & Analysis:** The team completed a current state process map and identified existing gaps. These gaps were reviewed and helped the team to create a desired state map and process flow for the new Early Referral process. The new process includes a shortened application process for clinical staff and earlier notification of and scheduling of outpatient appointments. Roll out of the new process included education of clinical and administrative staff and collection of feedback. Feedback was collected via patient/caregiver surveys, inpatient staff meetings, and post-discharge follow up calls.

**Study Sample or Initiative Scope:** Patients from the Inpatient Stroke/Neuro program applying to the outpatient program who are agreeable to receiving appointments prior to discharge.

**Findings:** Decreased wait time for Outpatient Stroke/Neuro program to within target start date of 2 weeks of inpatient discharge. Increased patient and caregiver satisfaction: decreased levels of anxiety, transparent communication during key points of transition. Increased staff satisfaction: assurance that patients will be continuing their recovery in the community, more streamlined referral process that enhances staff efficiency.

**Discussion:** Early Outpatient Referral has led to better collaboration and communication between Inpatient and Outpatient Stroke/Neuro teams as well as with the patient and caregiver. Improved staff efficiencies and resource utilization due to less paperwork, decreased time allocated to scheduling over the phone, and less changes needed to outpatient therapy schedules.

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**Conclusions:** Providing patients with an outpatient therapy schedule prior to inpatient discharge leads to increased patient and staff satisfaction and decreased outpatient wait times. Positive feedback has led to the implementation of the Early Outpatient Referral Process to the Geriatric and Orthopaedic programs.

## Brain Injury / Neuro / Stroke

**Poster Number:** 16

**Title:** Research Literature to Clinical Practice: Introducing a New Therapeutic Intervention for Patients with Speech and Swallowing Difficulties.

**Authors (Primary First):** Monique Fourcaudot; Madeline Sandwell

**Affiliation of Primary Author:** Runnymede Healthcare Centre

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

### ABSTRACT

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**Purpose:** Expiratory muscle strength training has been reported in the literature and in speech language pathology courses and conferences to have a positive impact on speech and swallowing.

**Relevance:** Speech and swallowing abilities are taken for granted; when they are impaired they have a significant impact on a patient's quality of life. Traditional speech and swallowing therapy interventions are compensatory in nature. Expiratory muscle strength training is designed to alter the physiology of speech and swallowing processes from a rehabilitative perspective.

**Methods & Analysis:** We used the expiratory muscle strength trainer device that was used in the majority of the research studies. The pressure threshold was set according to the manufacturers recommendations. The recommended treatment period is 25 breaths per day, 5 days a week, for 5 weeks. A few patients were seen daily for a longer period of time. Patients also received traditional speech/swallowing therapy. Analysis was mostly subjective based on diet texture changes, self assessment and speech/swallowing observations. Objective analysis was provided by Modified Barium Swallow Studies, speech intelligibility testing and voice assessment for maximum phonation time and vocal intensity.

**Study Sample or Initiative Scope:** Five patients diagnosed with Parkinson's disease or Stroke with speech and swallowing difficulties.

**Findings:** There were favourable outcomes for all of the patients that were seen for expiratory muscle strength training. Two of the patients were no longer exhibiting aspiration on their post treatment Modified Barium Swallow study. Swallowing improvements were also noted in upgrades in diet textures or fluid consistencies. Improvements in speech were found for all patients – improved vocal intensity, MPT and speech intelligibility. One patient also exhibited an improvement in airway protection by improving her cough strength.

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**Discussion:** We did not follow the exact protocols as reported in the research studies. We were also unable to fully assess outcomes using objective measurements. Despite this, we did find positive outcomes with our patients. We were able to see patients five days a week because we work with trained supportive personnel who were able to provide the treatment.

**Conclusions:** Subjectively, expiratory muscle strength training does have a positive impact on both speech and swallowing. As patients were also receiving some traditional speech and swallowing therapy concurrently, our outcomes cannot be solely attributed to expiratory muscle strength training.

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## Brain Injury / Neuro / Stroke

**Poster Number:** 17

**Title:** The Use of a Patient Centered Goal Setting Approach in a Community Outreach Stroke Rehabilitation (COSR) Program

**Authors (Primary First):** Janine Theben; Maggie Traetto; Jacqueline Minezes; Jennifer Santos

**Affiliation of Primary Author:** West GTA Stroke Network

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

### ABSTRACT

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**Purpose:** To reflect on the use of the Canadian Occupational Performance Measure (COPM) as a tool to support patient-centered goal setting. The goals identified by patients were themed to understand what patients value in a community stroke rehab program.

**Relevance:** Patient-centered goal setting is aligned with Ontario's Patient's First legislation which advocates for improving the patient experience and outcomes. Goal setting in rehab tends to be clinician driven and discipline specific. The COPM can shift the focus of therapy to the patient and facilitate interprofessional care.

**Methods & Analysis:** The COPM was developed as a client-centered tool to enable individuals to identify and prioritize issues that impact their performance in everyday living. The rehab care coordinator from the COSR team used this tool to assist patients in identifying personal goals for rehab. Results were recorded at intake and discharge from the program. Thematic analysis was used and a third person confirmed the categories were congruent. The number of patients who identified goals within each given theme was also quantified. Number of goals met and proportion of patients with a clinically significant change was tracked.

**Study Sample or Initiative Scope:** Sample included 50 adult stroke patients classified as "mild" based on the Alpha FIM<sup>®</sup>. These patients were within the Central West LHIN geography.

**Findings:** Ten themes were identified including: Memory, Communication, Return to work, Driving and Community Mobility, ADL/IADL Return to Pre-Stroke Activities, Physical (Strength, Endurance, Balance and Ambulation), Physical (Upper Extremity Function, Lower Extremity Function and Facial Asymmetry), Vision, Reading and Writing and Concentration. Initial goals have been identified for 36 patients. Further quantitative data will be available by March 31st.

**Discussion:** The use of the COPM in goal-setting shifted the focus from provider to patient. Patient goals acted as a foundation for treatment plans developed by the rehab team and collaboration was required

to achieve the goals. Thematic analysis helped the team to understand what clients value in community stroke rehabilitation and this information will help develop the program.

**Conclusions:** A patient centered approach using the COPM was used for this COSR program. This approach helped the team work more collaboratively and to better understand patient needs.

## Brain Injury / Neuro / Stroke

**Poster Number:** 18

**Title:** A Novel Approach to Delivery of Evidence Based Stroke Rehabilitation in Urban and Rural Settings in Southwest Ontario: Clinical and Practical Considerations

**Authors (Primary First):** Karen Heys; Krisztina Huszar

**Affiliation of Primary Author:** Parkwood Institute

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

### ABSTRACT

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**Purpose:** The SouthWest LHIN has three specialized stroke rehabilitation teams. These highly effective multidisciplinary teams deliver rehabilitation services in urban and rural settings. The ground level view and evidence based initiatives will be presented.

**Relevance:** Presenting the day to day functioning and evidence based initiatives of the specialized rehab teams will be of benefit to organizations looking to start service delivery based on similar weights and values or to those seeking to improve similar programs already existing in the community.

**Methods & Analysis:** The principles used in developing and implementing evidence based initiatives were based on the Canadian Stroke Best Practice Recommendations and the Evidence Based Review of Stroke Rehabilitation resource.

**Study Sample or Initiative Scope:** Since 2009 the teams have served over 1600 stroke patients in their communities. The geographic range of encompasses all of South Western Ontario.

**Findings:** Data from the specialized teams have been analyzed and previously presented by Dr. Teasell and colleagues. Their analyses showed long term maintenance of improvements in all spheres of physical and cognitive function as well as caregiver burden. The aim of this abstract is to highlight the unique ways in which the teams operate and to showcase several of their evidence based initiatives in the community.

**Discussion:** Practical points to share contributing to the success of the teams: the unique use of Rehabilitation Therapists; the client driven intake process; the integration of the self management model; the focus on community reintegration; maintaining safety in the community while providing rehab; implementation of the Aphasia groups and partnering with community organizations.

**Conclusions:** Geographic and demographic variations have to be taken into account when designing and implementing community based interventions and initiatives. Community based rehabilitation of stroke

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patients has been shown to be cost effective and could be extrapolated to other patient populations with similar characteristics.

## Brain Injury / Neuro / Stroke

**Poster Number:** 45

**Title:** Developing a System-Level Patient and Family Experience Questionnaire for Persons with Stroke and their Caregivers: An Experience Based Design Approach

**Authors (Primary First):** Donna Cheung; Sylvia Quant; Jacqueline Willems; Krystyna Skrabka; Shelley Sharp; Jocelyne McKellar; Elizabeth Linkewich

**Affiliation of Primary Author:** Toronto Stroke Network

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

### ABSTRACT

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**Purpose:** Patient and family experience questionnaires (PFEQs) provide an understanding of the emotional experiences of a patient. With no stroke or cross-continuum measures, the Toronto Stroke Networks sought to co-design a PFEQ with patients/caregivers.

**Relevance:** There is increased interest from government and provincial organizations to better understand the patient experience. Developing a stroke-specific PFEQ can capture experiences across the journey better than generic surveys. Information can be used to improve the quality of care for stroke patients and their caregivers.

**Methods & Analysis:** Using an Experience Based Design (EBD) approach, the questionnaire was co-designed with stroke patient and family advisors. Emotion words were initially based on the Virginia Mason Medical Centre Emotion Word List. Emotions and touchpoints were identified, reviewed, and validated using stories from advisors. Twelve Patient (n=10) and Family (n=2) Advisors provided personal stories to assist with the design of the questionnaire. Additional feedback was obtained from a Patient and Family Advisory Committee on the content, feasibility of completing the questionnaire and processes for implementation.

**Study Sample or Initiative Scope:** PFEQ will be piloted in the Greater Toronto Area including stroke prevention clinics, outpatient rehabilitation programs, and community organizations.

**Findings:** A PFEQ was developed and included questions related to touchpoints along the care journey, a list of 17 emotion words to guide responses, and space to reflect why they felt this way. Examples of touchpoints include how things were communicated, feeling prepared for what is happening next, information and resources provided, and moments when they received support to adjust to life after stroke.

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**Discussion:** By developing a stroke-specific cross-continuum PFEQ, themes can be generated from responses to understand where stroke services can be improved. This information will lay the foundation for identifying key patient experience indicators and inform stroke system planning for improved patient experience and outcomes.

**Conclusions:** By using an EBD approach, a stroke-specific cross-continuum PFEQ was successfully developed for stroke patients and their caregivers that reflect the emotions and experiences of a broad group of advisors. The questionnaire will be piloted in Toronto to measure patient experience and inform stroke system improvement.

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## Burn

**Poster Number:** 19

**Title:** Interprofessional Team Experiences for Rehabilitation of Newly Acquired Blindness Through Burn Injury

**Authors (Primary First):** Renee Orlando; Alla Bozhko

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

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

### ABSTRACT

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**Purpose:** Rehabilitation of a complex burn survivor with newly acquired blindness required development of innovative rehabilitation approaches by the interprofessional team including the trial of a sub-team model of care.

**Relevance:** This case study is relevant to current practice as this care model resulted in the team changing their method of practice to provide a different multidisciplinary approach in providing the most effective rehabilitative care.

**Methods & Analysis:** To implement this initiative the team trialed the sub-team model with the single burn patient. This patient was assigned 1 physiotherapist, 1 occupational therapist, 1 registered dietitian, 1 social worker and the same 4 nurses to provide consistent care.

**Study Sample or Initiative Scope:** The team was in new territory with the rehabilitation of a patient with newly acquired blindness in addition to his severe burn injury.

**Findings:** Using the sub-team model addressed some of the patient's biggest barriers that hindered his independence and discharge. The team was able to work together to teach him the things he needed to know in order to live everyday with newly acquired blindness but also keep motivating him without losing the work the team and he put in the previous day. The patient learned a new way of living and the team learned a new way of providing care.

**Discussion:** Through this experience the team decided to use the sub-team model as the unit's primary care model. It has shown better communication through patient and team members, better consistency, increase in patient and team satisfaction and overall better flow of patient care.

**Conclusions:** The most valuable lesson learned was that a consistent approach with every team member could make all the difference in a patients' rehabilitation success. This challenge allowed the team to realize a change was needed in order to give the patient every opportunity to achieve all of his goals.

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## Cardiac / Pulmonary

**Poster Number:** 6

**Title:** Validation of a Self-Administered Version of the Mediterranean Diet Scale (MDS) for Cardiac Rehabilitation Patients

**Authors (Primary First):** Gabriela Lima de Melo Ghisi; Anisha Mahajan; Gabriela SS Chaves; Veronica Rouse; Margaret Brum; Fatim Ajwani; Crystal Aultman; Maria Ricupero; Paul Oh; Tracey Colella

**Affiliation of Primary Author:** University Health Network

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

### ABSTRACT

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**Purpose:** Registered dietitians (RDs) promote a Mediterranean dietary pattern (MDP) as research shows its benefit in chronic disease prevention. We psychometrically validated an adapted, self-administered, plain language tool - Mediterranean Diet Score (MDS).

**Relevance:** Information on dietary patterns is lacking for participants in cardiac rehab (CR). Current food intake tools are time consuming, lengthy and focus on individual nutrient intakes and do not reflect overall eating patterns. Thus, a self-administered and validated tool may help address these barriers to practice.

**Methods & Analysis:** A pictorial and plain language version of the original MDS tool was adapted to facilitate comprehension and includes 13 items with higher scores indicating greater adherence to a MDP. The tool was completed by 150 participants: 50 completed the original MDS, 50 completed a 3-day food record and 50 completed the self-administered version. Results from the first two groups were correlated to the self-administered tool to test construct validity using Pearson correlation coefficients. Reproducibility was tested in the self-administered version two consecutive times at an interval of one or two weeks.

**Study Sample or Initiative Scope:** A cross-section of 150 cardiac rehab patients were included that consisted of adult men and women (25%) with an average age of 64±10.3 years.

**Findings:** Participant response rate was 68.2%. All intra-class correlation coefficients were >0.7 and thus, considered acceptable. Factor analysis revealed four factors that were consistent and Cronbach's alpha was 0.69. Construct validity was attained as agreements were reached between the self-administered MDS, the original version in all items and between the self-administered MDS and the 3 day food record on 8 out of 13 items.

**Discussion:** Reliability and validity was achieved with a self-administered, plain language version of the MDS. This will allow dietitians in clinical practice to efficiently assess patients' dietary patterns without guidance. The adapted tool can also be used in research to evaluate the effectiveness of educational interventions and dietary behavior change as it relates to a MDP.

**Conclusions:** Our study demonstrated that using a quick, valid, reliable and self-administered tool can support dietitians in clinical practice and encourage dietary behavior change. Further, this tool can be used to measure behavior change before and after nutrition interventions have been implemented.

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## Complex Continuing Care

**Poster Number:** 23

**Title:** GROW: Garden Rehab- On Wheels. Maximizing Patient Involvement in a Wheelchair Accessible Garden Through Creation of a Weekly Gardening Group Within a Complex Continuing Care (CCC) Program

**Authors (Primary First):** Amanda Beales; Susan Currie

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

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

### ABSTRACT

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**Purpose:** In 2016 a wheelchair-accessible garden was created at a CCC facility. In the first season, patient use occurred, mainly self-initiated touring, but was not formally structured. The aim of this project was to increase meaningful patient involvement.

**Relevance:** Research shows that garden therapy can be positive for the psychological and physical health of patients with conditions common in CCC, such as dementia, frailty, cancer and neurological conditions. It can be a meaningful way to encourage movement, cognition and socialization. How best to provide this therapy was unclear.

**Methods & Analysis:** 13 weekly groups were run by an Occupational Therapist and a Registered Dietitian from July-October 2017. Exclusion criteria included dysphagia with impulsivity, infection control needs, behaviors that would affect a group and medical instability. Risks of participation were reviewed and consent given. Activities included planting, harvesting, tasting, composting, seed-saving and discussion. Evaluation measures were quantitative (satisfaction on a scale of 1-10, attendance) and qualitative (pre/mid/post interviews). 5 quality improvement cycles were done. REB approval was waived as it was quality improvement.

**Study Sample or Initiative Scope:** 7 wheelchair-dependent patients participated, mean age 64 years. Main diagnoses were spinal cord injury (4); cancer (1); stroke (1); vasculitis (1).

**Findings:** Participants attended 69% of groups on average. Reasons for absence were forgetting, illness and appointments. Attendance improved with reminders. Patients' mean satisfaction rating was 9.5/10. Themes from patient interviews included highly valuing the socialization as well as the gardening. Areas to improve include earlier patient involvement (i.e. with planning) and changing sessions from mornings (busier with nursing care) to afternoons.

**Discussion:** A garden group can promote socialization while providing cognitive and physical activities for CCC or rehab patients. Mitigated risks included falls, sunburn and choking. Due to high nursing care needs of patients, timing must be strategically planned for support for optimal attendance. Staff involvement for garden maintenance was required but provided team-building.

**Conclusions:** A weekly patient garden group was feasible and increased patient involvement in this wheelchair-accessible garden. It provided meaningful social interaction along with cognitive and physical activities, enhancing quality of life. Additional opportunities for group and individual garden therapy should be explored further.

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## Complex Continuing Care

**Poster Number:** 24

**Title:** Access and Flow: Streamlining Discharge Planning Coordination From Pre- Admission to Discharge

**Authors (Primary First):** Erin Garbett

**Affiliation of Primary Author:** Runnymede Healthcare Centre

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

### ABSTRACT

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**Purpose:** -organizational change - merged the two departments: patient flow and social work to create Access and Flow - streamline discharge planning processes to support ALC avoidance and management • Promotion of early communication regarding barriers to dis

**Relevance:** Allows for continuity of care and introduction of discharge planning discussions with the patient/SDM from pre-admission to transition back into the community. Broader team-based approach to discharge. Access and Flow Manager is able to follow the progression of discharge planning both at micro and macro level.

**Methods & Analysis:** Quality improvement approach with aim of streamlining processes to assist patients and their families for a smooth transition back into the community. Test the ability to flag ALC risks even sooner giving more time for conversation and intervention. Currently in the implementation phase: however we will be looking at the ALC avoidance rates (the number of patients successfully transitioned home despite having been identified as high risk of becoming ALC) and will be to soliciting feedback from staff on the new Access and Flow Model.

**Study Sample or Initiative Scope:** Creation of one Access & Flow department to combine admissions and discharges under the same direction to ensure seamless transition.

**Findings:** Comparison of processes pre and post department merging - (compare ALC avoidance rates pre and post implementation). Social Workers are more readily prepared for potential ALC risk patients once identified by Patient Flow Coordinators. Patient Flow Coordinators have better understanding of potential barriers to discharge that can be addressed prior to or on admission.

**Discussion:** Early collaboration and consultation with team to identify risks and barriers to discharge allows for a more seamless transition back into the community and to reduce the number of patients who become ALC.

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**Conclusions:** Often the department of Patient Flow (admissions) and Social Work (discharge planning) are quite separate which at times fragments process and communications but by bridging these department helps make discharge planning more efficient. Quality improvement approach to identify discharge barriers and ALC risk early.

## Other - All Rehabilitative Care Providers

**Poster Number:** 33

**Title:** 10 Guiding Principles of Person-Centred Care

**Authors (Primary First):** Christine MacDonell

**Affiliation of Primary Author:** CARF International

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

### ABSTRACT

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**Purpose:** Person-centred care (PCC) is key to the provision of quality rehabilitative care. PCC results in improved outcomes for the person served by rehabilitation programs.

**Relevance:** PCC informs the work that therapists do, and provides guidance for decision-making at all levels of the organization. An understanding of the best practices for, and core values of, PCC are essential to the provision of quality care at all levels of rehabilitative care organizations.

**Methods & Analysis:** An international literature review of PCC practices supported the development of a syllabus to support best practice education for medical rehabilitation providers. A schematic tool was created to guide practitioners in the implementation of PCC. Of course, quality care has also been tied to PCC through accreditation standards for this sector. Conformance to PCC standards is tracked through ongoing evaluation of accredited organizations, and an analysis of post-survey feedback is conducted on areas of organizational improvement related to PCC and other quality themes.

**Study Sample or Initiative Scope:** A tool/handout was prepared to support the implementation of PCC by rehabilitation professionals, and is also a resource to accredited organizations.

**Findings:** As a result of the review, a presentation and training tools were developed; the resulting toolkit is now available to guide therapists in implementing best practices for PCC, and will be distributed to workshop participants.

**Discussion:** PCC is collaborative approach aimed at cooperation with persons by demonstrating respect and tailoring care. Key to this approach is involving consumers in decision-making; recognizing their knowledge and experience; and advocating for and with them to meet their needs. The tool, highlighting universal principles, is beneficial in supporting the implementation of PCC.

**Conclusions:** Ten (10) guiding principles of person-centred care are useful to inform the work of health care providers, to provide guidance to human service organizations, and in improving outcomes for the persons that they serve.

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## Other - Not Population Specific

**Poster Number:** 34

**Title:** Moving the Brain Injury Rehabilitation Needle through Implementation Project

**Authors (Primary First):** Judith Gargaro; Corinne Kagan

**Affiliation of Primary Author:** Ontario Neurotrauma Foundation

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

### ABSTRACT

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**Purpose:** To improve the implementation across Ontario of recently-released brain injury evidence-informed guidelines and standards. There is variation across the province so implementation projects tailored to local priorities and practices are required.

**Relevance:** Best practices tend not to get integrated into daily practice even though there is interest and motivation. Clinicians have the need for outside implementation science expertise to assist with facilitation and development of implementation projects based on local priorities as well as provincial capacity-building.

**Methods & Analysis:** Ten facilities across the province are implementing guideline recommendations with implementation science support. Projects encompass: coordination and collaboration with mental health and addiction services; capacity to manage challenging behaviours; contextualized cognitive communication assessment; memory compensation strategies; sexuality; peer involvement in rehabilitation; and discharge planning and follow-up. Both process and outcome of the implementation was measured. Patient/family-friendly materials and education for primary care practitioners on the standards of care were developed and disseminated.

**Study Sample or Initiative Scope:** Facilities and healthcare providers engaged in treatment and rehabilitation of persons with brain injury across the province.

**Findings:** With careful planning using an implementation science framework, it was possible to improve the implementation of best practice guideline recommendations. Data were collected on both the clinical and implementation process and outcomes and used for continuous learning, accountability and sustainability planning. A tool for evaluating compatibility with standards was piloted by patients, families and healthcare providers and is ready for release.

**Discussion:** Targeted education strategies raised awareness. Implementation facilitation involving implementation science, catalyst grants, and consultation resulted in sustainable change in care.

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Capacity for future implementation projects has been increased. Sharing of clinical and implementation tools and resources occurred, setting the stage for a provincial community of practice.

**Conclusions:** Implementation needs facilitation as it is beyond daily clinical tasks. Using an implementation science framework promotes sustainable embedding of evidence-informed care and data collection which are important steps for ensuring equitable best-practice care and setting the stage for development of a provincial strategy.

## Other - General Rehab and CCC

**Poster Number:** 35

**Title:** The Amazing Race- Healthcare Edition: Adding Games to Professional Development to Increase Staff Engagement While Promoting Learning

**Authors (Primary First):** Amanda Beales; Maria Chiera-Lyle

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

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

### ABSTRACT

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**Purpose:** Each year a lecture-based professional development (PD) day has been provided to clinical staff. Feedback showed a need for more interactive sessions with less “sitting.” The project aim was to increase engagement by using games in the PD day.

**Relevance:** With the increasing complexity of patients in rehab and CCC, the need for ongoing staff education is crucial. Research suggests that games can enhance learning through immediate feedback, critical thinking and creation of a supportive team-based learning environment. As well, the novelty of games can improve engagement.

**Methods & Analysis:** An interprofessional group designed the PD day, and used mixed teaching methods. The morning remained “lecture-style,” broken up with a short “Jeopardy” game. In the afternoon, attendees were split into groups, rotating between 6x20-minute interactive stations with an “Amazing Race” theme. A moderator kept time and signaled when to rotate. Each station had a facilitator who led activities including simulations, case discussions and trivia games. If a team completed a station early, they could visit a “wellness station” with stress-relief activities. At the end of the day, participants completed an evaluation form.

**Study Sample or Initiative Scope:** 245 staff attended the PD day, offered over seven sessions. 84.6% were nursing, 11.0% allied health, 4.4% support staff. 90% completed evaluations.

**Findings:** 96% of participants found the day to be good (40%) or excellent (56%). 89% found the pace and 86% found the balance to be “just right.” From the qualitative comments, five participants found noise to be an issue, and three wanted seating during the games. Overall, incorporation of games increased staff satisfaction. The planning group found it more time consuming to coordinate compared to traditional lectures, but overall found it rewarding.

**Discussion:** Games as a teaching tool are underused but have many benefits, including promotion of teamwork, appeal to many learning styles, increased interaction, and provision of a safe environment

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for trial and error. As with any teaching method there are limitations, such as potential anxiety or embarrassment in learners (which use of teams may mitigate) and increased planning.

**Conclusions:** Using games in PD requires more resources to plan but can increase satisfaction and appeal to varying learning styles. Also of note, since clinicians do not sit for long periods of time in practice, adding movement can support engagement. Games can bring theory to life and are worth exploring as a teaching strategy.

## Other - Inpatient Rehabilitative Care

**Poster Number:** 36

**Title:** Multi-Year Medication Incident Reduction Initiative and Demonstrated Improvements in an Inpatient Rehabilitative Care Setting

**Authors (Primary First):** Matt Smith; Dr. John Patcai; Libby Little; Elly Correia; Dana Brunskill; Isabelle Baird; Angela Parkinson; Ashley Gandier

**Affiliation of Primary Author:** St. Joseph's Health Centre Guelph

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

### ABSTRACT

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**Purpose:** Can a quality initiative focusing on knowledge translation reduce the number of medication incidents occurring and therefore improve patient safety and confidence?

**Relevance:** This initiative is critical at the organization level because medication administration is a high-risk activity. Initiatives are important at the system level, but of greater importance is the approach and processes used to address the problem, as this can be adapted to other systems within similar healthcare settings.

**Methods & Analysis:** As a quality improvement project, we used reported medication incidents as our key metric for evaluation. Incidents were further broken-down into sub-categories to identify trends and understand where issues recurred so we could focus our numerous improvement initiatives. Subjective information from individual incident reports was used for categorization. Staff and patient experiences were also instrumental in guiding the project. Data was collected monthly, and reviewed by the project team, and senior leadership. It was also shared with all front-line staff and posted publicly on the unit quality boards.

**Study Sample or Initiative Scope:** This initiative was conducted in an 86 bed rehabilitative care hospital. This was a multi-year initiative with different annual foci.

**Findings:** Over a 4-year period medication incidents were reduced by 62%. The baseline measure in 2013 was 302 medication incidents. This was reduced to 117 in 2017 with incremental reductions in each year of the project. Organizational culture around medication safety has changed, with greater confidence in the overall safety of the medication system.

**Discussion:** This initiative demonstrates that medication safety can be improved, and also outlines a multi-year approach that could be transferrable to other settings. Medication safety is a proxy measure

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for overall quality. It is a very detail oriented practice involving various members of the healthcare team. Focus on this practice also indirectly improves accuracy in other areas.

**Conclusions:** A multi-year approach is needed to make significant and, most importantly, sustainable change in medication safety. The process used (multidisciplinary approach, broad communication, analysis, and tailoring initiatives) is transferrable to other settings and to other initiatives as well.

## Other - Not Population Specific

**Poster Number:** 37

**Title:** Tough Scrubber: An Innovative Interprofessional Hand Hygiene Improvement Initiative Using Simulation

**Authors (Primary First):** Joanna Parkes; Laura Shapiro; Rebecca Bunston; Jennifer Trieu

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

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

### ABSTRACT

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**Purpose:** 1. Increase Hand Hygiene (HH) compliance rates, 2. Develop a staff engagement strategy to foster a culture of Quality Improvement, 3. Create an innovative, sustainable and adaptable activity to address compliance

**Relevance:** Multifaceted and multimodal strategies are the most effective way to improve HH compliance. Consistent successful implementation of guidelines into practice has eluded quality improvement healthcare initiatives in the literature and our program. Our HH compliance rates, while improving, remained below set corporate targets.

**Methods & Analysis:** A review of existing simulation-based and adult learning concepts was utilized to develop an interactive learning activity simulating the complexity of completing HH in the clinical environment. The three-component "Tough Scrubber" initiative, comprised of a "pre-test" knowledge quiz, a simulation exercise and contemporaneous feedback, was carried out in the patient care environment to optimize staff participation. Participation was voluntary. A one month follow up "post-test" quiz was also completed to evaluate learning.

**Study Sample or Initiative Scope:** There were 4 sessions for 46 participants (RN, PSW, Health Disciplines, Management, Student, and NP) from 4 units (2 critical care, 2 in-patient ward)

**Findings:** 1. There was a sustained improvement across all knowledge questions (range: +1.7% to +47.7%), 2. HH compliance increased from 54% to 63% (Sept 2015 – May 2016), 3. Positive feedback was obtained from staff, 4. A tool kit, including a video, was generated for hospital wide roll out, 5. There was improved understanding of the complexities of adhering to HH compliance criteria.

**Discussion:** Tough Scrubber is an easy to implement and sustain HH learning event. The adaptable design maximized accessibility for staff in varied work areas and roles. Staff enjoyed the fun of this informal learning event and the feedback they received from peers. The staff gained knowledge that was sustained over the follow up period and most importantly HH compliance improved.

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**Conclusions:** Tough Scrubber showed that peer-led change initiatives have a positive impact on HH compliance, culture and knowledge. Events that are short duration, easily accessible to staff on the unit and simulation-based are valuable and impactful. Adaptable scenarios are critical for engagement, inclusiveness and educational impact.

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## Other - Not Population Specific

**Poster Number:** 39

**Title:** Evidence to Care: An Organizational Driver for Knowledge Translation in Rehabilitation

**Authors (Primary First):** Shauna Kingsnorth; Christine Provvidenza; Ashleigh Townley; Joanne Wincentak; Kathryn Parker; Golda Milo-Manson

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

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

### ABSTRACT

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**Purpose:** This presentation shares our approach and lessons learned from the past 5 years in developing and actualizing Evidence to Care — a knowledge translation (KT) hub to translate research into practice for children with disabilities and their families.

**Relevance:** Ensuring evidence-informed care happens systematically and consistently is not easy in complex health facilities. The field of KT is rising to meet this need. Increasingly, hospitals and rehab centers are developing KT infrastructure through dedicated roles and expert teams to address known barriers to drive best practice.

**Methods & Analysis:** Development of Evidence to Care involved a series of steps integrating knowledge translation principles, best evidence and stakeholder needs. Key steps included: recognition of health system drivers and organizational enablers; establishing organizational structures and processes; operationalizing the strategic vision through events, activities, and flagship projects; and evaluating impact.

Measurable impacts of projects include: assessment of needs and practice change to align care with best practice; utility (both perceived and actual) of KT products to achieve KT goals; and efficacy of dissemination strategies.

**Study Sample or Initiative Scope:** Key pillars include targeted knowledge-to-action projects, KT capacity building across the Hospital, and developing solutions to meet internal needs.

**Findings:** To realize our working model, Evidence to Care has undertaken flagship projects aligned with the Knowledge-to-Action cycle and integrated KT principles, partnering with clinicians, researchers, families and partners. Evaluation findings demonstrate tangible examples of improving healthcare quality through investment in tailored evidence products and processes; and increased KT confidence among staff facilitating integration in our local context.

**Discussion:** Evidence to Care has laid the groundwork for bridging the gap between research evidence and practice. Critical enablers to the success of this working model include strong leadership commitment and ongoing direction, a dedicated expert team, alignment with strategic priorities, and situated within organizational structures to link research, clinical care and education.

**Conclusions:** With a replicable model and a proven track record, Evidence to Care is able to develop evidence-based KT products; drive in-house adoption; maximize transfer beyond our walls; evaluate and assess impact; build capacity to ensure sustainability of investments; and model excellence in KT for the broader healthcare system.

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## Other - Not Population Specific

**Poster Number:** 40

**Title:** An Innovative Approach to Determining Quality Based Outcomes in the Home Care Setting

**Authors (Primary First):** Vivienne Epstein

**Affiliation of Primary Author:** Saint Elizabeth

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

### ABSTRACT

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**Purpose:** Saint Elizabeth Professional Development Leaders aimed to provide a framework for quality based outcomes for community-based therapists for all five rehab disciplines. As well, they used a knowledge translation approach for integration into practice.

**Relevance:** Despite increasing recognition of the value of in-home based rehabilitation, determining quality based outcomes is a challenge. Challenges include variability of funded visit models, approved visit numbers and complex environments. A method for evaluating outcomes for in-home intervention was developed for all rehab disciplines.

**Methods & Analysis:** An Evidence Informed Decision Model, adapted from DiCenso, A., Cullen, N., & Ciliksa, D. (1998) and used by Saint Elizabeth at a Corporate level was selected for the rehabilitation program by the Clinical Leaders of the 5 rehab disciplines; PT, OT, SLP, SW and RD. This Decision Making Model includes four parameters; Clinical Expertise, Resources, Patient Preference and Research. The principle was to provide a standard methodology applicable to all 5 rehab disciplines to guide assessment and goal development, and a framework for evaluation of clinical practice and embedding best practice principles of Person –Family Centred Care as per Patient Preference. This Model was disseminated through a knowledge translation process.

**Study Sample or Initiative Scope:** All therapists were provided with education modules on the Evidence Informed Decision Making Model which was then incorporated into new Assessment Forms for all disciplines.

**Findings:** Therapists have been provided with education modules to define components of the Evidence Informed Decision Making Model to ensure common understanding. Therapists attended interdisciplinary educational workshops on positive client experience including role playing and communication competency training to provide a common understanding of Patient Preference. All therapists are using newly developed Clinical Assessment Forms incorporating the 4 components of the adopted Evidence Informed Decision Making Model.

**Discussion:** Adopting a decision making model provides a framework for therapists as to the core considerations for rehab in the home care setting and a potential framework for outcome evaluation. It accounts for variability within the home setting and with home care models, providing evidence as to how decisions or client goals were reached. Such an approach could contribute to improved standards of clinical rehabilitation services in the community.

**Conclusions:** A method to create a standard approach within the variable clinical environment of home care was promoted through a knowledge translation approach for a provider agency with all 5 rehab disciplines. It is hoped that this method will provide a framework for evaluating practice standards, goal development and goal achievement as well as provide a model for enhancing best practices.

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## Other - Transitional Care

**Poster Number:** 42

**Title:** The Integrated Consult Process: Transitioning Patients from Acute to Sub-acute Care

**Authors (Primary First):** Kathy Bouchard

**Affiliation of Primary Author:** The Ottawa Hospital

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

### ABSTRACT

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**Purpose:** One of the goals of the Patients First Action Plan for Health Care is to provide faster access to the right care. This is especially important with high occupancy rates in acute care and pressures to optimize capacity in sub-acute care.

**Relevance:** Patients in acute care being considered for transition to sub-acute care went through a process involving multiple and sequential referrals leading to lengthy wait times for a decision. There was a need to develop a more efficient method of transitioning patients which would be in line with the Provincial Action Plan.

**Methods & Analysis:** An Integrated Consult Team (ICT) was created with Assess and Restore project funding to streamline the process of referring, triaging, assessing and transitioning patients from acute to sub-acute care. The provincial Resource Matching and Referral form and a Rehabilitation Decision Model are used as standardized tools in this process. A gradual roll out strategy supported by multiple staff education sessions was executed to ensure the success of this new initiative. A user survey was conducted after 18 months and the feedback was used to further improve the process efficiency and the patient/user experience.

**Study Sample or Initiative Scope:** Referrals are from acute medicine and surgery units. Sub-acute care destinations are in-patient rehabilitation programs and complex continuing care.

**Findings:** Annual referral volumes for the new process have grown each year. Fiscal year 2016-17 had over 3000 referrals. Most referrals for rehabilitation destinations have a triage to decision time within 24 hours. Turn-around time for most complex continuing care referrals is within 48 hours. Sub-acute care bed occupancy has increased and length of stay and alternate level of care rates in acute care have decreased since the start of the initiative.

**Discussion:** The ICT uses a lean process which enables patients to access the right care in a coordinated and timely manner. It supports the smooth transition of patients from acute to sub-acute care which is

in alignment with the LHIN's Sub-acute Care Capacity Plan. The impact of decreasing alternate level of care rates has an estimated savings in acute care of \$4.4million annually.

**Conclusions:** The achievements attained by the Integrated Consult Team are an example of how Assess and Restore project funding can lead to the establishment of a permanently funded model. The success of this initiative continues to grow as it is currently being expanded to include community hospitals within the LHIN.

## Paediatrics

**Poster Number:** 7

**Title:** Disability Disclosure, Inclusion, and Workplace Accommodations for Youth with Disabilities: Youth and Employer Perspectives

**Authors (Primary First):** Sally Lindsay; Elaine Cagliostro; Joanne Leck; Winny Shen; Jennifer Stinson

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

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

### ABSTRACT

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**Purpose:** Our objectives were twofold: (1) to explore how young people with disabilities disclose their condition and ask for work accommodations, and (2) to understand employer accommodation practices and how they create an inclusive environment.

**Relevance:** Many youth with disabilities find it challenging to disclose their condition and request workplace accommodations. Enhancing the employment of people with disabilities can help support healthy and productive work.

**Methods & Analysis:** A descriptive qualitative study was conducted involving in-depth interviews with a purposive sample of 17 youth with disabilities, and 18 employers who hire youth with disabilities. We drew on the communication predicament of disability model and communication accommodation theory for the youth perspective, and human resource strategies to support diversity for the employer perspective. We analyzed our data using an interpretive, qualitative, thematic approach, which resulted in the identification of themes related to disclosure, accommodations, and inclusion.

**Study Sample or Initiative Scope:** Our sample included 17 youth with disabilities, aged 15-34, and 18 employers who hire youth with disabilities.

**Findings:** Youths' strategies for disability disclosure included self-advocacy, knowledge of workplace rights, and accommodation solutions. Challenges to disclosure included fear of discrimination, employers' lack of knowledge of disabilities and accommodations, and negative past experiences. Most employers encouraged youth to disclose their condition and emphasized the importance of creating an inclusive workplace culture through advocacy, mentoring, and diversity training and policies.

**Discussion:** Our study highlighted that more programs are needed for employers to hire youth with disabilities and to create awareness of proper accommodation processes. More strength-based employment training is also needed for youth with disabilities, including how their disability can be an asset and utilizing the skills they have in the workplace.

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**Conclusions:** Youth encounter several challenges in disclosing their condition and requesting accommodations, but having an inclusive work environment can help make youth more comfortable with disclosing.

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## Paediatrics

**Poster Number:** 20

**Title:** Assessing the Impact of an Adapted Robotics Program on Interest in Science, Technology, Engineering and Mathematics (STEM) Among Children With Disabilities

**Authors (Primary First):** De-Lawrence Lamptey; Elaine Cagliostro; Dilakshan Srikanthan; Sukeyoung Hong; Sandy Dief; Sally Lindsay

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

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

### ABSTRACT

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**Purpose:** This study explored the following research questions: (1) To what extent does an adaptive robotics program foster STEM interest in children with disabilities? (2) How did the program meet the expectations of the children?

**Relevance:** People with disabilities experience higher unemployment rates compared to their counterparts without disabilities. STEM disciplines offer a viable opportunity for stable employment. Thus, encouraging STEM skills among people with disabilities is an important way for them to increase viable job prospects.

**Methods & Analysis:** Pre- and post-program surveys were used to assess the influence of a six-week adapted robotics program on STEM interest of children with disabilities and how the program met the expectations of the children. The surveys included both closed-ended items (e.g., desire to have a career in computing or robotics) and open-ended items (e.g., why do you want to participate in the program). Multiple regression and Wilcoxon signed ranked tests were used to analyze closed-ended items on the surveys. A thematic analysis was conducted for open-ended survey responses.

**Study Sample or Initiative Scope:** The sample size contained 57 children with disabilities (aged 6-14 years). There were 11 female and 46 male participants.

**Findings:** Children aged 6-9 years learned a lot about computing or robotics from the program than children aged 10-14 years. No significant difference existed on the children's intentions to study computing or robotics. Children aged 6-9 years had a significant increase in desire to pursue careers in computing or robotics. The children's intent for participating in the program and what they enjoyed most during the program were linked to STEM.

**Discussion:** The findings suggest that children ages 6-9 years found the program to be more beneficial than older children (i.e., 10-14 years). This might be because younger children are generally likely to

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have had less exposure to technology and fewer opportunities to explore their interest than older children.

**Conclusions:** Although adapted robotics programs can improve the interest of children with disabilities in STEM, children aged 6-9 years benefit a lot more from such programs compared to older children (aged 10-14 years).

## Paediatrics

**Poster Number:** 21

**Title:** From Safety to Skill Development: The Co-Creation of a Handbook to Guide Rehabilitative Care in Feeding and Swallowing

**Authors (Primary First):** Joanne Wincentak; Shauna Kingsnorth; Christine Provvidenza; Ashleigh Townley; Deryk Beal; Joanne Downing; Andrea Hoffman; Carolyn Li; Rebecca Perlin; Christie Raffaele

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

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

### ABSTRACT

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**Purpose:** Co-develop and disseminate a practical handbook for hospital and community-based clinicians involved in the assessment and management of feeding and swallowing issues.

**Relevance:** The Excellent Care for All Act outlines the need for evidence-based best practice resources that are accessible and understandable. However, the creation and dissemination of resources that bring together research evidence, clinical expertise and client perspectives to address knowledge to action gaps can be difficult.

**Methods & Analysis:** An integrated knowledge translation approach capitalized on the expertise of our in-house knowledge translation team, feeding and swallowing clinical team and a family leader to co-create this resource. The Knowledge to Action Cycle guided development activities and was paired with an iterative process of review and feedback from hospital and community experts. The content was visualized using information design principles. Dissemination strategies included conferences, professional association mailing lists, social media and champions. Evaluation of the handbook uptake was based on reach metrics and feedback surveys.

**Study Sample or Initiative Scope:** The handbook was created with the intent to provide clinicians with a trusted, evidence-based, accessible and client-centred resource.

**Findings:** The handbook is a 60-page resource built upon a practice-based framework that spans safety to skill development. Since its release online in June 2017, it has been accessed over 4,500 times. The handbook has international reach with downloads in Europe, Africa, Australia and Asia. Feedback from clinicians indicates that the handbook is comprehensive, user-friendly and visually appealing with a diversity of educational and clinical purposes.

**Discussion:** The integrated knowledge translation approach taken was instrumental for the creation of this handbook. In order to create a trusted, evidence-based, accessible and client-centred resource;

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expertise, commitment and partnership between knowledge translation professionals, content experts and family with lived experience was needed.

**Conclusions:** A co-creation process, leveraging the knowledge skills and expertise of different people, and combined with research evidence is key to defining and presenting best practices.

## Paediatrics

**Poster Number:** 22

**Title:** Centres for Leadership: A Strategy for Academic Integration

**Authors (Primary First):** Sean Peacocke; Gillian King; Kathryn Parker; C. J. Curran; Amy McPherson

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

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

### ABSTRACT

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**Purpose:** To describe the evolution, benefits, and transformational learnings of the Centres for Leadership (CfL) initiative designed to propel integration of research, clinical practice and education at Holland Bloorview Kids Rehabilitation Hospital.

**Relevance:** Academic Health Science Centers (AHSCs) have the tripartite academic mission of supporting excellence in research, clinical practice, and education. The investigation of the Centres for Leadership, looks at the operational challenges and opportunities of supporting integration of research, clinical practice, and education.

**Methods & Analysis:** We utilized multiple sources of data, including (a) historical documents (planning and report documents) (b) tracked outputs such as funding, participants, project deliverables and impact areas by the CfL program and (c) insights on transformational learnings from key informants. Key informants included clinical, research and education staff who have supported the Centres for Leadership. Consensus on key themes was achieved through discussion and brainstorming over a series of six monthly meetings.

**Study Sample or Initiative Scope:** Historical documents, tracked program outputs, and staff members' insights were used to describe the 10-year evolution of the Centres for Leadership.

**Findings:** Benefits of the Centres for Leadership included enhanced clinician engagement in research, practice-based research, and impacts on clinical practice. Transformational learnings concerned the importance of supporting stakeholder engagement, fostering a spirit of inquiry, and fostering "leaderful" practice at an Academic Health Science Centre. We observed increases in authentic partnerships, greater innovation capacity, and leadership values.

**Discussion:** Practical information is provided for other organizations interested in understanding how the Centres for Leadership initiative evolved, its tangible value, and its wider benefits for organizational collaboration, innovation, and leadership values. Challenges encountered and main messages for other organizations are also considered.

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**Conclusions:** Our goal is to share learnings of an innovative organizational strategy and a novel operational means of bringing a vision of academic integration into reality.

## Senior-Focused Care

**Poster Number:** 9

**Title:** Staff and Patient Perspectives on Falls Risk in an Inpatient Geriatric and Medical Rehabilitation Program

**Authors (Primary First):** Samantha Anecchiarico; Vithurry Sivaloganathan; Jessica Casey; Rachel Devitt

**Affiliation of Primary Author:** Providence Healthcare

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

### ABSTRACT

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**Purpose:** To understand the perspectives of medically complex patients and staff, specific to the physical environment and communication, in a hospital's geriatric and medical rehab units regarding application and effectiveness of falls prevention strategies.

**Relevance:** This study contributes to best practice falls prevention strategies. It creates a consistent understanding of falls risk perspectives and provides information to clinicians and decision makers when developing falls prevention strategies. The findings also act as a starting point to further explore perspectives on falls.

**Methods & Analysis:** Surveys were administered to patients and staff to collect data to describe frequency of perspectives specific to falls risk. Demographic data was abstracted from patient participant health records and all data was managed, stored, and analyzed on Excel.

**Study Sample or Initiative Scope:** A sample of 28 inpatients and 19 clinicians from a rehabilitation hospital in Toronto, Ontario participated in a descriptive quantitative study.

**Findings:** The perspectives on communication (i.e. verbal communication) and the hospital's physical environment (i.e. falls assessment) related to falls risk differed between patients and staff. Patients perceived falls prevention strategies to be more effective than staff participants. Staff and patients found a combination of both communication, such strength exercises, and environmental falls prevention strategies, such as walker tags, to be effective.

**Discussion:** This study highlights falls prevention strategies medically complex patients and clinicians rank in terms of effectiveness and most/least received. Our study suggests that a lack of communication and/or understanding of falls prevention strategies exist between staff and patients.

**Conclusions:** Clinicians, managers, and policy makers should work to provide an emphasis on both communication and environmental factors that both staff and patients report to be effective. This may

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increase compliance in adopting recommendations from healthcare providers on preventing falls and ultimately reduce patient falls.

## Senior-Focused Care

**Poster Number:** 29

**Title:** Purposeful Rounding and Falls Prevention : A Team Led Approach

**Authors (Primary First):** Aisha Savvas; Janel Hollingsworth

**Affiliation of Primary Author:** The Scarborough and Rouge Hospital

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

### ABSTRACT

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**Purpose:** A high rate of patient falls in the previous year were identified as a key concern on a complex continuing/restorative care unit of a large community hospital.

**Relevance:** This initiative is of interest at the practice and organizational level as it impacts patient outcomes and the routines and structure of the unit. This initiative also had an impact on overall patient and staff satisfaction.

**Methods & Analysis:** A kaizen event was held in September 2017 with members of the interprofessional team. The team developed a new routine that included purposeful rounding every two hours, consolidation of morning tasks, a change in PSW standard work, staggered break times and dedicated teams to work with each other throughout the shift. Prior to implementation, the champions educated all staff on the purpose and goals of the initiative. To support this work, leadership rounding was implemented –patients/families were surveyed to see if their care needs were met and daily staff huddles were held to address barriers in real time.

**Study Sample or Initiative Scope:** This initiative was rolled out on 44-bed CCC unit consisting of medically complex and low tolerance long duration rehab patients.

**Findings:** There has been an 84% improvement in patient and family satisfaction, 50% reduction in call bell use and 75% reduction in falls. The teams are comfortable knowing that they have a dedicated team member to round with and they have adopted the new routines very well.

**Discussion:** With team-based purposeful rounding, we are able to ensure patient care needs are met and prevent deconditioning and complications that arise from hospitalization. More patients are meeting their rehabilitation goals and are discharged home in a timely fashion.

**Conclusions:** This was a staff led initiative and its success stems from their leadership and drive to make a positive difference in the experience and outcomes of our patients. Ongoing engagement of the team and patients is key to the continued success of this initiative.

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**Senior-Focused Care****Poster Number:** 31**Title:** Post Discharge Automated Calling project –Language and Call Window Enhancement**Authors (Primary First):** Maggie Bruneau; Kelly Tough; Sara Penny; Monica McCullagh; Tracey Sanford; Stephanie Ellis; Celia So; Mike Freymond; Susan McElhinney**Affiliation of Primary Author:** Providence Healthcare**Abstract Category:** Rehabilitation-Related Best Practice Initiative or Organizational Innovation**ABSTRACT**

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**Purpose:** Post discharge calls support safe transitions home. Our aim is to reach as many patients post discharged home from rehab via automated and live calls in the patients' preferred language. A real time multi call automated platform, electronic database, and call window enhancement have been introduced.

**Relevance:** Qualified staff provide in depth follow up to those requiring additional resources and support. Patients are identified by live call requests and flags raised by the auto system. Flags are: ER visits, depression, medication, MD appointment, pain, falls, caregiver strain, exercise program and follow up request.

**Methods & Analysis:** Reintegration to Normal Living Index (RNLI) and Caregiver Strain Index (CSI) were the standardized tools chosen. The RNLI aligns with the strategic plan outcome measure for "flourishing at home". The CSI addresses caregiver burden and is utilized across the organization.

Avg 1 month (66.7) and avg 4 month RNLI score

Avg 1 month (10.8) and avg 4 month ( 10.7) CSI score

Avg improvement in RNLI score from 1 month to 4 month post discharge, 7.9 score, higher is better

Avg improvement in CSI from 1 month to 4 month post discharge, lower is better

88% of all calls state it is a "good way to let us know how you are doing"

**Study Sample or Initiative Scope:** Calls are made to persons discharged home to the community from inpatient rehab and palliative care.

**Findings:** 48 hr – FY17/18

93% calls automated, 8% live

84% contact rate for auto calls, 98% live

41% auto calls raised a flag

67% auto calls responded to, 93% live

1 mo. – FY 17/18

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88% calls automated, 12% live  
78% contact rate for auto calls, 97% live  
64% auto calls raised a flag  
61% auto calls responded to, 77% live  
4 mo. – FY 17/18  
86% calls automated, 14% live  
73% contact rate for auto calls, 96% live  
Calls by language available

**Discussion:** A robust and reliable database and innovative electronic documentation system is implemented. Prompt follow up is effective.

RNLI and CSI data is collected at 2 intervals. We expanded to include a 4 mo.call to compare scores and add languages. Patient reported outcome measures gauge the successful reintegration of patients into community and how caregivers are coping.

**Conclusions:** More contact opportunities outside of traditional work hours support our patients and their families. This provides specific follow-up tailored to individual's needs. Discharge plans, community services and referrals are reinforced and clarified. Moving forward, additional languages and outpatient services will be added

## Senior-Focused Care

**Poster Number:** 32

**Title:** Leveraging Partnerships and RAI data for a Multi-Faceted Community-Based Fall Prevention and Least Restraint Strategy

**Authors (Primary First):** Debbie Barton; Jennifer Wright

**Affiliation of Primary Author:** Central LHIN

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

### ABSTRACT

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**Purpose:** The least restraint philosophy has been an integral part of our organization's fall prevention strategy since 2015. We developed a least restraint policy to support best practice and improve patient safety.

**Relevance:** Ongoing education, continuous feedback on practice, enhancing communication, specialized reports, RAI data, collaborative educational initiatives and partnerships across sectors all contribute to enhanced practice, identifying system trends and policy development.

**Methods & Analysis:** A least restraint approach to care, risk reduction and increasing patient safety and well-being are the key principles in our organization's fall prevention and least restraint strategy. Data-informed practice has focused our education and communication with staff, service providers and community partners. In collaboration with our decision support team, we have created several key reports that assist us in understanding practice and emphasizing the importance of evidence and practice alternatives. A draft Bed Safety Assessment to guide decision-making and the pilot results and next steps will be shared.

**Study Sample or Initiative Scope:** The initiative involves older adults who receive nursing, personal support and/or rehabilitation services in the community.

**Findings:** Currently, our organization has the second lowest rate of falls in the province as of September 30, 2017. As part of our fall prevention strategy and least restraint approach a concerted effort has been made to reduce the use of full bed rails in the community. As a result, a significant reduction in the use of full bed rails was achieved. In July 2015, 63 active patients had full bed rails compared to 4 patients as of October 2017.

**Discussion:** Our Fall Prevention Strategy and innovative use of RAI data informs and sustains education and validates patient safety in practice. Our organization's pilot of the bed safety assessment form

provided a structured approach to effective decision making. In addition, our partnerships, collaborative education strategies and quality improvement plans with service providers.

**Conclusions:** As the complexity of patients' increases, a multi-faceted approach, strong partnerships and data-informed practice must be maintained to help reduce the prevalence and impact of falls. Health Canada's safety alert about hospital beds and entrapment risks in April 2017, reinforces the need for individualized assessment.

## Senior-Focused Care

**Poster Number:** 46

**Title:** Intergenerational Program: an opportunity for older generation patients to interact with school aged children in activities on a regular basis to foster social and emotional well being and become engaged in common goals.

**Authors (Primary First):** Sarah King; Helen Wong

**Affiliation of Primary Author:** Runnymede Healthcare Centre

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

### ABSTRACT

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**Purpose:** Enhance patient experience by fostering socialization; nurture positive relationships between younger and older participants; promote emotional health and well being; foster comfort level for school aged children interacting with people with physical cha

**Relevance:** Promote emotional health and well being Promote comfort level among school aged children interacting with older generation and persons with physical challenges. Foster an opportunity for older generation to share their wisdom with the younger generation. Engage patients with the community

**Methods & Analysis:** This program runs from September to June. It has been in operation for the past 2 and a half school years. A class of Kindergarten children, accompanied by their teachers and school volunteers attend the program once a month. The program is one hour in duration. This initiative is organized and conducted by the Activation Department. Activities in this program support themes being taught in the school curriculum  
Surveys, observation and frequent communication with school staff are conducted regularly. This is to evaluate program success and to ensure goals and objectives are being met.

**Study Sample or Initiative Scope:** Participants:  
Patients that fulfill inclusion criteria of this program, these are in patients in either the Low Tolerance Long Duration or Medically C

**Findings:** Survey and direct observation results demonstrate:  
A positive change in affect or mood and engagement is higher among patients who participated in intergenerational programs versus single generational programs.  
High satisfaction among patients participated in this program.

For school aged children, teachers reported benefits such as increased comfort around persons with disabilities.

**Discussion:** There are demonstrated benefits in Intergenerational Programs as described under Findings. It is rewarding for participants, staff and volunteers to observe positive findings. This is a worthwhile program that can easily be replicated in other in-patient hospital settings.

**Conclusions:** This program has fulfilled its objectives of enhancing patient experience by fostering intergenerational interaction and socialization, promote emotional health and well being amongst participants and enhance comfort level of students around persons with disabilities.

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## Special Needs (e.g., wound care, bariatric)

**Poster Number:** 25

**Title:** Enhancing Oxygen Titration and Tracheostomy Suctioning Skills For Physiotherapists through Simulation Based Education

**Authors (Primary First):** Denise Scott; Sarah Branton; Angela Miller

**Affiliation of Primary Author:** Humber River Hospital

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

### ABSTRACT

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**Purpose:** To enhance the method of assessment and ensure quality assurance practices for physiotherapists of the required controlled acts of oxygen titration and tracheostomy suctioning through simulation modalities.

**Relevance:** Simulation based education allowed Humber River Hospital to ensure the competence of the physiotherapists practicing controlled acts on our patients and support the physiotherapists to meet the requirements of the College Of Physiotherapists for rostering.

**Methods & Analysis:** Three simulations, including two high-fidelity, were developed inter-professionally to assist with the standardized approach of evaluating the staff's skills in performing each controlled act. All physiotherapy staff were invited to attend lunch and learn sessions in the simulation lab to practice and review the practical skills for each controlled act.

**Study Sample or Initiative Scope:** All physiotherapists at HRH were offered the opportunity to participate and 89% (24/27) of weekday PTs participated. PTs were expected to: 1) To demonstrate how to safely/accurately implement controlled acts 2) To demonstrate knowledge, judgment and practical skills needed to perform controlled acts; and 3) To demonstrate competence in successfully performing the identified controlled act.

**Findings:** A pre-learning education package and open lab day(s) were helpful to prepare for the PT SIM lab experience as 92% agreed or strongly agreed it was beneficial. By participating in the PT SIM lab, 84% agreed or strongly agreed that this experience improved their ability and comfort to perform the skills of oxygen titration +/- tracheal suctioning in their clinical practice.

**Discussion:** Future application for PT SIM includes: 1. clinical education sessions for PTs using the SIM lab and small groups to work on complex problems related to oxygen titration and suctioning. 2. Clinical demonstrations with PT experts proving SIM modeling and the opportunity safe inquiry. 3. Using SIM for new employee orientation to provide practice and evaluation support.

**Conclusions:** Participant feedback states the benefits is that SIM: allows instant practice feedback , provides a good practice opportunity, fulfills College requirements, is a safe learning environment and allows for collaboration with colleagues. While the stress and time from clinical work are disadvantages, overall it was beneficial

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## Spinal Cord Injury

**Poster Number:** 27

**Title:** Implementation of a New Spinal Cord Rehabilitation Inter-Professional Discharge Summary

**Authors (Primary First):** Heather Flett; Kristina Guy; Gillian Johnston; Melanie Kokotow; Jennifer Mokry; Carol Scovil

**Affiliation of Primary Author:** University Health Network - Toronto Rehab - Lyndhurst Centre

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

### ABSTRACT

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**Purpose:** To develop an effective and efficient inter-professional discharge documentation process following inpatient spinal cord (SCI) rehabilitation to optimize communication.

**Relevance:** An integrated, inter-professional approach to SCI rehab is essential. Through the Self-Management Support for SCI initiative, goal setting, rounds and documentation now includes patient priorities and needs in 26 SCI domains. In Phase 2 we needed to improve discharge documentation to improve communication and transitions.

**Methods & Analysis:** Toronto Rehab's Best Practice Process guided implementation. Patient Need related to discharge communication was determined through Patient Satisfaction data, interviews and focus groups. Key themes were gaps and duplication in information transfer between inpatient and community providers. Literature review and environmental scan found several Best Practices. Gap Analysis found variability between and within professions in content and timeliness of documentation; lack of actionable plans. In Preparation phase, pre-implementation surveys, focus groups, and chart reviews were used to understand barriers and enablers.

**Study Sample or Initiative Scope:** Initiative involved an inter-professional working group to improve discharge documentation for 60 bed SCI rehab program with 342 admissions per year.

**Findings:** The new SCI-DCS was created, piloted and refined based on feedback. The SCI-DCS was then implemented as standard of care in June 2016. Evaluation found high staff buy-in and completion rates. Outpatient staff feedback notes greater comprehensiveness and focus of identification of all current issues and plans. Post-implementation survey results found significant improvement in: timeliness of d/c documentation, staff satisfaction and confidence.

**Discussion:** The use of Toronto Rehab's Best Practice Process to systematically guide implementation along with application of implementation science and Lean principles enabled a successful and

sustainable initiative. Strategies included: integration into existing processes, replacing not adding documentation, extensive staff coaching and education, monitoring to ensure completion.

**Conclusions:** The new SCI-DCS was developed and implemented in a systematic manner with a focus on providing comprehensive, inter-professional discharge information to enable effective and efficient communication in the transition from SCI rehabilitation to the community.

## Spinal Cord Injury

**Poster Number:** 44

**Title:** Self-management of Pain and Depression in Adults with Spinal Cord Injury: A Scoping Review

**Authors (Primary First):** Lauren Cadell; Claudia DeLuca; Sander Hitzig; Tanya Packer; Aisha Lofters; Tejal Patel; Sara Guilcher

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

**Abstract Category:** Systematic Literature Review

### ABSTRACT

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**Purpose:** The purpose of this scoping review was to examine the literature to determine what is known about the self-management of pain and depression through the use of pharmacological and non-pharmacological therapies in adults with SCI.

**Relevance:** There are many secondary complications associated with a SCI including pain and depression. Self-management strategies are growing in popularity for helping people with SCI to cope with their pain and depression. However, there is still a lack of research on which approaches are best suited for this population.

**Methods & Analysis:** A comprehensive search strategy was developed in consultation with a Medical Librarian. Seven electronic databases were searched from January 1, 1990 to June 13, 2017. Grey literature was searched and additional articles were identified by manually searching the reference lists of included articles. The articles went through a two-stage screening process and for inclusion, studies were required to meet a predetermined set of criteria. Data was extracted from the included articles using Microsoft Excel which allowed for analysis and comparison of different variables across multiple studies.

**Study Sample or Initiative Scope:** The number of included articles was based on a set of predetermined inclusion criteria.

**Findings:** Overall, forty-two articles met the inclusion criteria. The majority reported on the self-management of pain, rather than depression or both. Self-management strategies incorporated the use of non-pharmacological therapies more frequently than pharmacological therapies. A limited number of studies included all of the core self-management tasks and skills.

**Discussion:** Our review highlighted a need for future research to address the following: incorporate all of the core self-management tasks; utilize a multidisciplinary approach focusing both on pain and

depression; evaluate both pharmacological and non-pharmacological therapies; and describe more details about population demographic and clinical characteristics.

**Conclusions:** Multiple gaps were revealed as the extent of information was limited in several areas. In particular, we identified a paucity of studies utilizing self-management approaches that incorporate emotional, role and medical management. Further research is needed to fill the gaps in the literature highlighted in this review.