Table of Contents

Conference Poster Abstracts

Student Poster Abstracts

Brain Injury / Neuro / Stroke

Poster Number: 1

Title: Life Skills Training via Telerehabilitation for Individuals with Acquired Brain Injury Participating in a Transitional Living Program: A Feasibility Study

Authors (Primary First): Andrejs Mazpolis; Mark Ferland; Edward Lemaire; Wendy Spenst

Affiliation of Primary Author: The Robin Easey Centre of the Ottawa Hospital

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

ABSTRACT

Purpose: The study examined the feasibility of in-home life skills retraining over the internet with persons with brain injury, as measured by the experiences of clients, family members, and therapists.

Relevance: Few telehealth studies with persons with brain injury have examined the use of cognitive and life skills compensatory strategies within the home environment, from the client and therapist perspectives of comfort and sense of accomplishment. The study also measured levels of intrusiveness experienced by family.

Methods & Analysis: Participants and therapists provided ratings of satisfaction and confidence, respectively, for each telehealth session. After four telehealth sessions, participants and therapists rated their ability and confidence using the equipment. At session five, family members rated their perceived level of intrusiveness for the equipment and video transmissions. At the end of the telehealth treatment, overall ratings of comfort and accomplishment were obtained from participants and therapists and compared to ratings from in-vivo sessions. Participants rated their openness to future use of telehealth services.

Study Sample or Initiative Scope: Six adults with acquired brain injury with moderate to high levels of experience using computers, surfing the internet, and using webcams.

Findings: After only four sessions, all participants rated confidence level with equipment as excellent. Cohabitants rated the equipment and video transmission as non-intrusive. At the end of the study, all participants and therapists rated overall comfort and accomplishment with telehealth sessions as very good to excellent, and comparable to in-vivo session ratings. All participants were interested in receiving future healthcare services via telehealth.

Discussion: Telehealth sessions provided home-based retraining of life skills for individuals with cognitive limitations stemming from acquired brain in

jury. Although sessions involved training related to strategies to carry out independent activities of daily living , both therapists and participants rated the treatment by internet as being highly comfortable and worthwhile.

Conclusions: Telehealth interventions are a viable means of retraining life skills within the home for persons with significant cognitive impairment from acquired brain injury, when they have reasonable prior experience with the use of internet related hardware.

Brain Injury / Neuro / Stroke

Poster Number: 2

Title: Case Study: Alternative Treatments are used without the use of any medication to improve Sleep Quality and Duration after sustaining THREE Traumatic Brain Injuries.

Authors (Primary First): Anthony Aquan-Assee

Affiliation of Primary Author: Anthony Aquan-Assee Enterprises

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

ABSTRACT

Purpose: Sleep disorders are very common in patients who have sustained a Traumatic Brain Injury (TBI).
Many medications used to help sleep problems are addictive.
Hypothesis: Alternative Treatments will improve sleep without the use of any medication?

Relevance: Sleep problems interfere with recovery following a TBI. Poor sleep exacerbates TBI related problems such as cognitive problems, pain, depression and anxiety. This may cause a survivor to become dependant on sleep medication.
Improving sleep naturally, without drugs, is extremely important in the recovery of a TBI survivor.

Methods & Analysis: An Alternative treatment program was established to identify treatments to help improve sleep quality following repeated traumatic brain injuries. Alternative Treatments with Neurofeedback, Laser Therapy, and Kangen Water were explored. The self-report Pittsburgh Sleep Quality Index (PSQI) was used, pre and post treatment, to measure the quality and patterns of sleep on the following areas of measurement: (1) Subjective Sleep Quality, (2) Sleep Latency, (3) Sleep Duration, (4) Habitual Sleep Efficiency, (5) Sleep Disturbances, (6) Daytime Sleep Dysfunction. Prior sleep studies were used to track sleep gains.

Study Sample or Initiative Scope: Case Study on myself, completed by myself (48-year-old Traumatic Brain Injury Survivor with severe sleep problems at the start of the study).

Findings: NO medication was used at the time the subject participated in these Alternative Treatments. After each Alternative treatment there was a great improvement in the quality of the subject's sleep. The pre and post Treatment PSQI scores showed a dramatic improvement in the sleep quality and duration after each Alternative Treatment session.
The Treatments discussed here have no known side effects. No side effects were experienced.

Discussion: The findings in this case study suggest that overall sleep quality and duration may improve after using these Alternative Treatments. Since no medication was used the results can be attributed to the Alternative Treatments. This is very significant for the TBI population who frequently experience sleep problems and often become dependent on sleep medications.

Conclusions: This case study suggests that sleep quality and sleep duration can be improved for a Traumatic Brain Injury Survivor without requiring any sleep medication. Alternative treatments such as Neurofeedback, Laser Therapy, and/or Kangen Water may help a survivor get a more restorative sleep and improve their recovery.

Brain Injury / Neuro / Stroke

Poster Number: 3

Title: Development of Concussion Education Material As Early Intervention for mTBI/Concussion Patients

Authors (Primary First): David Guo; Elke McLellan

Affiliation of Primary Author: Sunnybrook Health Sciences Centre

Abstract Category: Knowledge Transfer and Exchange Initiative

ABSTRACT

Purpose: Developing a concussion education tool to guide and improve the level of self-efficacy and self-management of patients in their recovery from concussion.

Relevance: A comprehensive concussion education tool currently does not exist for the adult population. Wait times for follow-up concussion clinic appointments at Sunnybrook Health Sciences Centre has an average of 70 days, making accessible education tool for concussive patients a valuable tool to initate recovery.

Methods & Analysis: Utilizing the Model for Improvement framework, we aimed to develop a concussion education handbook containing evidence-based information on recovery from concussion. Clinical experts in the field of concussion were consulted, including, neuro-psychiatrists, neurosurgeons, physiatrist and occupational therapists, as well as from evidence based in research and best practice guidelines were utilized in the creation of the education handbook. The development of the Handbook occurred through an iterative process, involving constant feedback from all stakeholders, including clinicians, patients and families.

Study Sample or Initiative Scope: Concussive patients entering Sunnybrook ED; patients referred to the TBI Clinic from the community; all concussion-related organizations in Canada.

Findings: "Mild Traumatic Brain Injury/Concussion: Your Guide to Recovery" Handbook was developed over the span of 12 months, published in October 2016, both in print and online at http://www.sunnybrook.ca/ConcussionHandbook. The handbook includes 3 sections: a brief need-to-know information on concussion recommendations for recovery, in-depth symptom-based and action-based information for recovery, and usable patient-centred tools to assist in recovery.

Discussion: Since the publication of the handbook, first wave of patients receiving such educational tool will be arriving for follow-up appointments in the TBI clinic. Preliminary patient feedback has been

positive in the handbook's ability to guide in symptom recovery, self-efficacy, and normalizing the injury for patients.

Conclusions: In developing such a tool, we hope to positively influence the course of recovery by providing a comprehensive resource to help patients manage their concussion symptoms and gradual return to activities, to ultimately reduce the dependence on the healthcare system, as well as fill a much needed gap in knowledge translation

Brain Injury / Neuro / Stroke

Poster Number: 4

Title: Implementing an Interprofessional Screening Tool to effectively manage mild stroke survivors in a timely manner

Authors (Primary First): Paula Shing; Kimberley Meighan; Lynne Race

Affiliation of Primary Author: Sinai Health System - Bridgepoint

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

ABSTRACT

Purpose: Develop and implement an interprofessional screening tool to facilitate timely and efficient admissions of patients with mild stroke into Outpatient (OP) Rehabilitation.

Relevance: Stroke Best Practices recommend mild stroke survivors start OP rehab within 48 hrs post-acute care discharge. In Feb 2015, Toronto Stoke Network then set a target for mild stroke survivors to initiate OP rehab within 14 days of discharge. Without additional resources, our program needed to be creative to achieve this goal.

Methods & Analysis: To ensure timely access, an interprofessional working group reviewed best practices and brainstormed creative solutions. Change idea: Book patients within timelines for a meaningful screen. As no tool meeting the needs for an interprofessional screen was found, a new screen was created based on the Canadian Stroke Best Practice Post-Stroke Checklist. Following many PDSA cycles, the screen now consists of 20 questions deemed most relevant to determine if appropriate services are referred to and to identify any high risk patients. The screen was also booked to allow for attendance at our weekly stroke education series.

Study Sample or Initiative Scope: During the pilot phase, all stroke patients referred via E-Stroke were scheduled for an interprofessional screen with 2 health professionals.

Findings: Positive: Timely access to OP rehab services below admission target ; increased patient/family engagement as they receive overview and orientation to program services and expectations ; early patient goal setting; early depression screen; early access to stroke education.
Challenges: Decreased initial team members buy in re: administrating screening tool interprofessionally; Scheduling patient/family at pre-determined time.

Discussion: As more screens were conducted, clinicians recognized the opportunity to learn from each other, and to identify patients at high risk and those who need additional services offered within our

program. And not only did mild stroke survivors access our services more easily, we were also able to promote interprofessional practice among our team members with this tool.

Conclusions: The interprofessional screen proved to be successful with our mild stroke survivors, ensuring their timely access to OP rehab services. Future directions may include adapting the screen for other neurological populations and including a patient representative in new iterations.

Brain Injury / Neuro / Stroke

Poster Number: 5

Title: Stroke Rehab: 1 Year Post "POD Model"

Authors (Primary First): Chris Pollard; Scott Harris; David Ceglie

Affiliation of Primary Author: Hotel Dieu Shaver Health and Rehabilitation Centre

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

ABSTRACT

Purpose: In an effort to improve clinical outcomes, patient experience, program effectiveness and organizational performance a new model of interprofessional rehab care was designed and implemented. This poster compares outcomes pre and 1 year post change.

Relevance: The following Drivers and Guiding Principles were considered in model redesign and evaluation: (1) Increasing Rehabilitation Intensity; (2) Strengthening Interprofessional teamwork and collaboration; (3) Advancing Clinical Expertise; (4) Optimizing Organizational Performance.

Methods & Analysis: A Strategic Rehab Alignment Working Committee consisting of front line staff and management was empowered to collaborate on mapping the processes of the new care delivery model. The committee performed; literature review of interprofessional team designs, site visits of Rehab facilities, examination of the stroke best practice guidelines/ QBP standards and review of health system funding reform. Analyses of the following indicators is ongoing to evaluate the change; LOS, % patients achieving RPG LOS targets, FIM efficiency and patient satisfaction.

Study Sample or Initiative Scope: The outcomes are taken from stroke patients attending inpatient active rehabilitation during 2014-2015, 2015-2016.

Findings: Length of stay data improved from 34 days to 29 days. The percentage of patients achieving their RPG target LOS went from 40% to 76%. FIM efficiency went from 0.9 to 1.1. The percentage of patients who responded positively to the question" Would you recommend this facility" went from 97% to 98.8%..

Discussion: This new model offers stroke patients a consistent skilled healthcare team who value collaboration and rehabilitation intensity. Important components of the redesign include electronic scheduling, daily team safety huddles and physician-led conferences - outside of scheduled therapy times. This has led to increased patient time in therapy and improved bed utilization.

Conclusions: The evaluation of the pre and post outcomes demonstrates that a change in the model of care can positively impact patient outcomes, program effectiveness and organizational performance.

Brain Injury / Neuro / Stroke

Poster Number: 6

Title: Standardizing SLP competencies and processes to work with patients' with complex respiratory conditions in an active rehab setting

Authors (Primary First): Lisa Kosztandy; Sheryl Zaitlin-Gencher; Ruth Levin

Affiliation of Primary Author: University Health Network - Toronto Rehabilitation Institute

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

ABSTRACT

Purpose: The initiative's purpose was to standardize Speech-Language Pathologists' (SLPs) competencies and processes when working with patients who have complex respiratory conditions (including tracheostomies) in active rehab programs at our organization.

Relevance: Medical complexity is increasing for patients admitted to rehab. Knowledge needs assessment of SLPs identified gaps in the skill and confidence to treat patient with complex respiratory issues and tracheostomies. Resources from other levels of care existed but did not meet the needs of active inpatient rehab.

Methods & Analysis: Identified knowledge gaps and education needs were addressed through development of evidence-based competencies for practices and processes, equipment, and recognizing and responding to respiratory distress. Consultation and observation with multidisciplinary content experts across the continuum yielded information about current practices and resources that could be adapted for active rehab. Best practice literature was reviewed to create resource documents for SLPs and patient education. Knowledge translation was evaluated and sustained using post-learning assessment and access to resources.

Study Sample or Initiative Scope: The initiative targeted all SLPs who work on short-term active inpatient units (stroke, brain injury and geriatric) within the organization.

Findings: Education was provided via in-services and e-learning to support increased knowledge of respiratory compromise and tracheostomies. A standard process for timing and administration of swallowing assessments for these patients was developed. Patient education documents and just-in-time learning resources for SLPs were created to build competencies to provide standardized quality care with the changing patient population.

Discussion: Patients with respiratory compromise and tracheostomies often have dysphagia and/or communication disorders. Enhanced foundational knowledge, just-in-time learning and resources can

build SLP capacity and competency. Effective management by SLP can facilitate timely access to specialized care for primary rehab needs, improved patient safety and better outcomes.

Conclusions: As patient needs evolve, SLPs must continue to build knowledge to provide safe, quality care. Creation of standard processes minimizes the risk of errors and patient harm. Appropriate resources support just-in-time learning and increase learner engagement. Knowledge from across the continuum can be adapted to a rehab focus.

Brain Injury / Neuro / Stroke

Poster Number: 7

Title: The use of telepractice to provide timely access to outpatient rehab

Authors (Primary First): Marla Fogelman; Alyssa Bobkin

Affiliation of Primary Author: Toronto Rehab Institute - UHN

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

ABSTRACT

Purpose: To increase access to rehabilitation for patients who are unable to receive services in a traditional outpatient setting. Our goal was to maintain timely access so that rehabilitation could be provided effectively to patients in underserviced areas.

Relevance: This initiative is of interest at the practice level because we are delivering patient centred care in a timely manner, as per stroke best practice guidelines. Telepractice allows us to provide equal access to rehab for patients regardless of where they live or whether they have transportation limitations.

Methods & Analysis: We used the principles of timely access to services, patient centered care, patient consent & confidentiality, and our College Position Statement on the Use of Telepractice Approaches in Providing Services to Patients/Clients. Ontario Telehealth Network was utilized to guide and provide training in the appropriate use of telepractice. Standard assessment and treatment tools were used; however, sometimes in a modified manner. Evaluation of the initiative was based on patient and clinician satisfaction with a) therapy sessions and progress, b) the technology, and c) telepractice vs. traditional delivery methods.

Study Sample or Initiative Scope: Thus far, we have used telepractice services to deliver Speech Therapy and Social Work to 2 patients living in remote areas of Ontario.

Findings: We were surprised to learn that telepractice could be used to deliver therapy in a similar manner to traditional delivery methods. Initial challenges included arranging computer access for patients, software compatibility, sound quality, and awareness of webcam/user positioning. However, we were able to overcome these challenges and provide effective therapy. The benefits of this initiative have outweighed any challenges in implementation.

Discussion: Our initiative has practical applications due to its versatility of use. After beginning with Speech Therapy, we expanded to include Social Work. We also worked with an additional patient with

different assessment needs and rehab goals. It is reasonable to assume that this initiative could be applied to a wide variety of cases in the future.

Conclusions: Telepractice can be an effective and timely means of service delivery for a variety of patient types and rehab disciplines. Although there are some inherent challenges, the benefits of providing patient centred, evidence based care for people living in remote areas or having limited access to transportation are apparent.

Brain Injury / Neuro / Stroke

Poster Number: 8

Title: Sexual Health Education for Patients in Stroke Rehabilitation

Authors (Primary First): Tiziana Bontempo; Lynn Suter; Samir Eshdooh; Natalie Bailey

Affiliation of Primary Author: West Park Healthcare Centre

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

ABSTRACT

Purpose: Provide patients an opportunity to discuss and learn about their sexual health following a stroke in a group or 1:1 setting. An original QI project focused on the inpatient population, this project expanded to include outpatient stroke population.

Relevance: Canadian Best Practices Recommendations for stroke care include sexuality as an area to address. Despite the well-established impact of stroke on sexuality, this crucial aspect of rehabilitative care is often overlooked by healthcare providers and patients.

Methods & Analysis: The occupational therapists (OT) asked all patients with stroke whether they wanted to receive sexual health education. It was delivered on a "one to one" basis and/or a monthly group session, as per patient preference. The "one to one" session was guided by an education pamphlet via an OT or RN. For patients with aphasia an SLP used aphasia friendly mateirals. The monthly session was delivered in a Power Point format by an RN.
Descriptive statistics were used to evaluate the number of patients consenting to education, reasons for declining the education, and to rate the group education sessions.

Study Sample or Initiative Scope: All patients admitted to the inpatient and outpatient stroke rehabilitation program were screened. Aphasia and non-English patients were included.

Findings: 33% of patients screened consented to sexual health education. Reasons for declining the education sessions were mostly due to lack of interest or no sexual partner. Of those that did consent to education the majority showed a positive response to the impact on their sexual health, comprehensiveness, understandability and appropriateness of the education. 82% of patients who received education felt the timing of the education was appropriate.

Discussion: Sexual health is an important but infrequently discussed issue for stroke survivors. Providing patients with an opportunity to discuss their concerns and receive education about sexual health after stroke can improve quality of life post-stroke. Patients agree that sexual health education is appropriate and should be offered to all stroke patients.

Conclusions: Sexual health is an important but infrequently discussed issue for stroke survivors. This quality improvement initiative shows that patients in inpatient or outpatient stroke rehabilitation do welcome an opportunity to learn and talk about their concerns when it comes to post-stroke sexuality issues.

Brain Injury / Neuro / Stroke

Poster Number: 9

Title: Communication Strategies Training Pilot Program: Integrating AAC to Optimize Communication Outcomes for Individuals with Aphasia and their Communication Partners

Authors (Primary First): Kara Bagnulo; Sarie Chaimovitz; Anna Subramaniam; Tasneem Dharas; Pearl Gryfe

Affiliation of Primary Author: Assistive Technology Clinic

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

ABSTRACT

Purpose: Aphasic patients are known to demonstrate difficulty independently using Augmentative and Alternative Communication (AAC) systems due to cognitive limitations in addition their aphasia (Garrett & Kimelman, 2000; Beukelman & Ball, 2002).

Relevance: Research shows patients with aphasia and communication partners benefit from use of supported conversation strategies adapted from SCAA™. Furthermore, the incorporation of assistive devices and technologies in treating communication impairment resulting from aphasia is considered best practice (Herbert et al., 2016).

Methods & Analysis: Based on language assessments the patients involved demonstrated potential to improve communication abilities through the use of supported conversation strategies in conjunction with low and/or high technology communication aids. Participants of the Communication Strategies Training (CST) pilot program participated in a five week program which included weekly one hour sessions focusing on integration of communication strategies with AAC. The Goal Attainment Scale (GAS) was used to measure each patient's success in conveying messages to their partner.

Study Sample or Initiative Scope: Four dyads participated in the CST pilot program. The dyads consisted of one patient with aphasia and one communication partner.

Findings: The GAS criterion for the expected outcome was set as 75% of messages conveyed. GAS results indicated that each of the four dyads reached expected level (level 0) or greater (+1 - +2) following completion of CST. Results were reviewed following the final session and three of four dyads demonstrated potential for further communication success with the use of a Speech Generating Device (SGD).

Discussion: The psychosocial benefits related to individuals' ability to particpate in communcation activities are well known. The integration and structured training of supported conversation strategies

may improve the successful and meaningful use of AAC aids, as well as the communicative effectiveness between patients with severe aphasia and a trained communication partner.

Conclusions: Patients and partners who received structured training in the use of supported conversation strategies in combination with AAC tools demonstrated improvement in use of AAC and communicating messages effectively.

Brain Injury / Neuro / Stroke

Poster Number: 10

Title: Memory and Language Pilot Program: Addressing Cognitive Communication in Parkinson's Disease

Authors (Primary First): Kara Bagnulo; Pearl Gryfe; Karen Frydrych; Wing Yiu Stephanie Wong

Affiliation of Primary Author: Assistive Technology Clinic

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

ABSTRACT

Purpose: Cognitive-linguistic changes in the areas of attention, executive function, memory, and language have been linked to frontal-subcortical changes in Parkinson's Disease (PD) (Aarsland et al, 2003).

Relevance: Traditional speech therapy is often focused on treating dysphonia and dysarthria, or the physical components of speech. Mild cognitive impairment in early PD has been reported to contribute to poorer quality of life (Lawson et al., 2014).

Methods & Analysis: Three patients participated in the Memory and Language pilot program. Patients attended five weekly one-on-one treatment sessions, which included an educational component on lifestyle factors impacting cognition, compensatory memory and expressive language strategies, and active memory and language training techniques. The Patient Reported Evaluation of Cognitive Status (PRECiS; Patchick et al., 2016) was administered pre and post treatment.

Study Sample or Initiative Scope: Three patients with PD who reported mild cognitive-linguistic changes and related negative impacts in vocational and social involvement were included.

Findings: For two out of three participants, post-intervention PRECiS results indicated patients had reduced concern around their communication difficulties and decreased perceived negative impacts of these difficulties on their lives. A patient satisfaction survey administered following treatment indicated all three participants felt improved confidence in their communication and memory abilities.

Discussion: The administering clinicians suspect severity of cognitive communication difficulties and stage of PD were critical factors impacting success of the program. Formal research into the clinical and psychosocial benefits of addressing these concerns across the disease progression may be warranted.

Conclusions: PD patients in early stages who report memory and language concerns may benefit from targeted cognitive communication intervention.

Brain Injury / Neuro / Stroke

Poster Number: 11

Title: Oral Care Protocol on th Integrated Stroke Unit

Authors (Primary First): Maureen Evans; Judy Goetz; Sarah Awde

Affiliation of Primary Author: Grand River Hospital

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

ABSTRACT

Purpose: We developed an oral care protocol in order to provide optimal oral care to stroke patients at all levels of function. This report highlights improvements in the delivery of oral care, and resulting benefits to patients' recovery.

Relevance: Stroke patients with dysphagia are at increased risk of aspiration pneumonia, and if they develop the infection, their transition from acute care to stroke rehab may be delayed. Because regular oral care reduces the risk of aspiration pneumonia, an oral care protocol could promote regular care and permit timely transition.

Methods & Analysis: To evaluate how the Oral Care Protocol contributed to improved delivery of oral care, we performed qualitative surveys of stroke nurses' attitudes toward oral care both before implementation of the Protocol, and again one year later.

Study Sample or Initiative Scope: This initiative is relevant to persons with stroke of all levels of function, but particularly those who have are at higher risk of aspiration.

Findings: A comparison of the attitudes of stroke nurses toward oral care before and after implementation of the Protocol revealed positive changes in nurses' attitudes to delivering oral care, improvements in staff compliance with delivering oral care, and clear understanding of the implications of inadequate oral care for stroke patients.

Discussion: We demonstrated that a dedicated oral care protocol can contribute to the delivery of thorough regular oral care. Because it is widely accepted that regular oral care can help to reduce the risk of aspiration pneumonia, an oral care protocol may encourage regular thorough delivery of this important aspect of patient care.

Conclusions: This oral care protocol was developed for the acute phase of the stroke pathway, and has promoted the delivery of oral care in the acute setting. Next steps for this initiative include implementation of an oral care protocol in the rehabilitation setting.

Brain Injury / Neuro / Stroke

Poster Number: 12

Title: Prevalence of Compartment Syndrome in Anticoagulated Patients with Stroke Receiving Botulinum Toxin Injections: A Retrospective Study

Authors (Primary First): Chetan Phadke; Chris Boulias; Farooq Ismail; Vivekanand Thanikachalam

Affiliation of Primary Author: West Park Healthcare Centre

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

ABSTRACT

Purpose: To assess the prevalence of compartment syndrome in patients receiving botulinum toxin injections for spasticity in deep leg compartment muscles and compare patient and intervention characteristics among different types of anticoagulants.

Relevance: Research shows that anticoagulated patients do not experience more bleeding with needle EMG, but a possibility of a theoretical increase in bleeding in can affect physician practice. Bleeding prevalence in anticoagulated patients with spasticity receiving botulinum (BoNTA) injections is not known.

Methods & Analysis: Charts of 105 consecutive patients (age 62 ±13 years, 61 right hemisphere lesion, 63 males) with stroke receiving botulinum toxin injections in the deep compartment (tibialis posterior, flexor digitorum longus, flexor hallucis longus) over a 7 year period were reviewed. We recorded overall and deep leg compartment muscles BoNTA dose, number of injection sites in deep muscles, spasticity using modified Ashworth Scale score, BoNTA guidance techniques, toxin type, number of injection cycles, dosage, compartment syndrome or bleeding episodes, and international normalized ratio (INR) values on the day of BoNTA injections.

Study Sample or Initiative Scope: Patients were divided into four groups: Coumadin, new anticoagulants, antiplatelet, and no medication.

Findings: We found no cases of compartment syndrome in any patient groups over 666 injection cycles (range 0–24 cycles and average 4±6 injection cycles per patient). Median spasticity score was 2 in the deep compartment muscles. Twelve patients were anticoagulated using Coumadin with an average dose of 5.5±3.2 mg per day and INR value ranging from 1.2–2.5 (average 2±0.4). Four patients were receiving new anticoagulants with average dose 18±3 mg per day.

Discussion: No between group differences were seen. Overall patients received 399±109 units of BoNTA (arms + legs) across 21±38 sites in the arms and legs and 79±47 units in the deep compartment muscles across 3±2 sites in the deep compartment muscles.

Conclusions: Our data show that when BoNTA injections are delivered in muscles of the deep leg compartment with INR ranging from 1.2–2.5, we did not see any cases of compartment syndrome or significant bleeding episodes over 666 injection cycles over a 7 year period in persons post-stroke.

Senior-Focused Care

Poster Number: 18

Title: 48 hour and 1 month Post Discharge Automated Calling project

Authors (Primary First): Maggie Bruneau; Mike Freymond; Celia (Ka Yee) So; Stephanie Ellis; Tracey Sanford; Monica McCullagh; Sara Penny; Kelly Tough

Affiliation of Primary Author: Providence Healthcare

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

ABSTRACT

Purpose: Post discharge calls support safe transitions home. Our aim is to reach as many patients post discharge from inpatient rehab via automated and live calls. A real time multi call automated platform and electronic database was introduced as a pilot.

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: Patient Health Questionnaire (PHQ-2), Reintegration to Normal Living Index (RNLI) and Caregiver Strain Index (CSI) were the standardized tools chosen. The PHQ-2 aligns with the inpatient depression screening toolkit. 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 RNLI score 59.8/110, higher is better
Avg CSI score 12.1/26, lower is better
Avg PHQ-2 score at 48 hr. 1.1/6, lower is better
Avg PHQ-2 score at 1 mo. 1.3/6
88% of all auto calls state it is "a good way to let us know how they are doing

Study Sample or Initiative Scope: Calls are made to persons discharged home. Moving forward calls will include the following: retirement home, convalescent care and long term care.

Findings: 48 hr -Apr - Nov 2016
89% calls automated, 11% live
84% contact rate for auto calls, 98% live
41% auto calls raised a flag
76% auto calls responded to, 90% live
1 mo. -Apr - Nov 2016

86% calls automated, 14% live
81% contact rate for auto calls, 97% live
64% auto calls raised a flag
62% auto calls responded to, 86% live

Discussion: A robust and reliable database and innovative electronic documentation system were developed. Prompt follow up is effective.
RNLI and CSI data is collected at 1 mo. We are expanding to include a 4 mo. call, we can then compare scores. These patient reported outcome measures gauge the successful reintegration of patients into the 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: 19

Title: Better with Time: A Team Based Approach to Spread the Improvement Work on Delirium Accuracy

Authors (Primary First): Jocelyn Denomme; Tanya Abji; Sarah Evans; Jesika Contreras; Florence Li-Wong; Tina Sahota; Deborah Brown

Affiliation of Primary Author: Sunnybrook Health Sciences Centre

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

ABSTRACT

Purpose: The Aim of this work is to improve the accuracy of Confusion Assessment (CAM) screening of patients to 70% within a 9 month period by using an interprofessional team based approach embedded in quality improvement methodology.

Relevance: Delirium is a serious event that often initiates a cascade of events culminating in the loss of independence, functional decline, prolonged hospital stay and complications along the continuum of care. The objective is to increase the detection of delirium, focusing on interventions to mitigate and reduce incidence rates.

Methods & Analysis: The primary outcome is % agreement of Confusion Assessment Method (CAM) results with chart abstraction. The goal by December 31, 2016 is to achieve 70% congruence between delirium identifiers in the chart and a CAM positive detection by staff, with data signaling a sustainable improvement.
Secondary Measure: Physician documentation of delirium in chart
Process Measures: CAM compliance documented in chart, delirium prevention and management interventions documented in chart
Balancing Measures: Identification of patients as + delirium who do not have delirium may trigger unnecessary ordering of tests

Study Sample or Initiative Scope: Scope of Initiative: all patients on 2 general internal medicine units
Staff: all IP staff were trained to CAM including medical residents

Findings: Both General Internal Medicine units showed special cause variation towards improvement due to The intervention. One unit achieved a median of 70% CAM positive CAM capture form a baseline of 43% , the other unit achieved 58% CAM capture from a baseline of 15%.
This focused work has brought a team of individuals together to use rapid cycle improvement to identify the way forward in accurately identifying delirium.

Discussion: Lack of knowledge of patient baseline status and challenged communication among IP team members have the potential to impact accuracy. Occupational and Physical Therapy and other Health Disciplines who require detailed patient baseline functional status information can improve delirium accuracy by sharing to enhance knowledge about patient status prior to admission.

Conclusions: Key Messages:

- engage all stakeholders in the initiative from leadership to front line staff
- share data through audit and feedback to all staff on a regular basis
- create opportunities for enhanced communication about delirium status and baseline functional status
- ensure there is a plan in place to sustain the gains

Senior-Focused Care

Poster Number: 20

Title: A rehabilitation goal-setting mobile application (OnMyFeet) in older adults: usability and acceptability

Authors (Primary First): Karen Chiu; Andrea Iaboni; Siyang Zhao; Xiongbin Zhao; Kexin Zhu; Ari Cuperfain

Affiliation of Primary Author: Toronto Rehabilitation Institute; Department of Physical Therapy, University of Toronto

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

ABSTRACT

Purpose: The purpose of the study was to investigate the usability and acceptability of a mobile application called OnMyFeet, which was designed to assist older adults in patient-directed goal-setting and progress-tracking in inpatient rehabilitation.

Relevance: Patient-directed goal-setting enhances participation and performance in therapy; however, this process is onerous and currently not part of standard-of-care. To overcome the barriers of goal-setting, OnMyFeet utilizes an evidence-based behaviour change intervention to help patients set, prioritize, and personalize goals.

Methods & Analysis: The objectives of this pilot usability study were: 1) assess the usability and acceptability of OnMyFeet and 2) assess the effectiveness of OnMyFeet on enhancing client-centredness of goals-setting. This was a mixed-methods study, combining quantitative and qualitative data. Participants were asked to complete two task scenarios on OnMyFeet, the first scenario was completed with guidance and the second was done independently. Objective measures of usability, including success rate, time-on-task, and ease of use, were collected through usability tests and surveys and subjective data was collected during interviews.

Study Sample or Initiative Scope: Two volunteers and four MSK inpatients from UHN-TRI were recruited. Participants were over the age of 55 and had no diagnosis of dementia.

Findings: According to the System Usability Scale, OnMyFeet scored 65 ± 27.9, which was below average. Users thought the application was accommodating but recommended more prompts and written instructions. However, users enjoyed maintaining a diary of their progress and having a large role in decision-making. On the Client-Centredness of Goal-Setting survey, OnMyFeet scored over 90% in all subscales, which were indicators of high client-centredness.

Discussion: During the interviews, older adults expressed anxiety and difficulty understanding the purpose of PT and OT activities. These findings suggest therapists have a large role in connecting therapy activities to patients' personal goals. Therefore, the implementation of OnMyFeet in clinical practice may facilitate patient-therapist interactions and increase client-centredness.

Conclusions: In this study, OnMyFeet enhanced patient-directed goal-setting, which is the best practice in rehabilitation. The next prototype of the application will address usability issues specific to older adults. We aim to integrate OnMyFeet into therapy and measure its effectiveness on improving motivation and functional outcomes.

Senior-Focused Care

Poster Number: 21

Title: Bringing Care Home: Initial Outcomes from an Inter-Organizational and Cross-Sectoral Geriatrics Community Outreach Team

Authors (Primary First): Asenath Steiman; Agnes Kulinek; Anna Siciliano; Samir Sinha

Affiliation of Primary Author: Toronto Rehab/UHN; Sinai Health System

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

ABSTRACT

Purpose: To evaluate the impact of a collaborative inter-organizational and cross-sectoral interprofessonal outreach team intended to better serve community-dwelling frail older adults at risk of losing their independence with a range of geriatric services.

Relevance: Lack of availability and access to preventative and restorative care services, often mean older clients end up unnecessarily in hospitals. The existing gap in outreach services to foster independence at home, shows the need for more inter-professional care options to optimize the continued independence of older persons.

Methods & Analysis: In 2015, through a unique partnership of health sector organizations, a core team was assembled to include a nurse, social worker, pharmacist, geriatrician and care coordinator. Clients self-refer or are referred by others. Through both telephone contact and home visits, client-centered comprehensive care plans and ongoing follow-up, supported by weekly team rounds, are provided collaboratively with clients, caregivers and their primary care teams. Current team performance is being monitored through a variety of process and outcome measures, as well as satisfaction surveys all analyzed using descriptive statistics.

Study Sample or Initiative Scope: The program operates across 25 postal codes in Toronto and has received 320 referrals in its first 12 months of operation from a variety of sources.

Findings:

- 260 clients met the program's inclusion criteria
- Top referral sources: hospital/ED (59%), specialist (21%), primary care (17%), and community care provider (3%)
- Length of Stay averages 10.5 weeks
- Over 420 linkages to local community-based services were made
- 6 direct admissions to inpatient rehab from the community

- Clients, caregivers and providers report being greatly satisfied by the quality of care and support the team provides.

Discussion: This model knits together a variety of sector partners and enables more timely access to clinicians and supports to create more durable linkages for at risk clients. Embedding the team in a large rehab centre, with a variety of rehab options, significantly improved access. Client, caregiver and provider needs can be supported through a supportive community oriented team.

Conclusions: A growing population of community-dwelling frail older adults demands new models of care that promote independent living. Collaborative inter-organizational and cross-sectoral inter-professional models are possible to develop and can yield effective ways of accessing and linking clients to the care and support they need.

Senior-Focused Care

Poster Number: 22

Title: Using a Business Intelligence Data Analytics Solution in Healthcare. A case study: Improving Hip Fracture Care Processes in a Regional Rehabilitation System

Authors (Primary First): Helen Johnson; Pete Crvenkovski; Osam Ali

Affiliation of Primary Author: ESC LHIN Rehabilitative Care Committee

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

ABSTRACT

Purpose: To build a Business Intelligence (BI) solution enabling access to up to date, accurate health system performance data required to support regional efforts to improve the care and outcomes of patients with hip fracture.

Relevance: Aging demographics in Ontario are driving health system quality improvement. Standardizing care of high-volume conditions like hip fractures to best practices is mandating innovation and collaboration between local system partners. Rehabilitative care is crucial in returning patients with hip fracture home to independence.

Methods & Analysis: Kotter's 8 Step Model of Change (1996) provided a backdrop to local system change efforts. Initial data needs were met through manually linking information available in health system databases by encrypted patient health card number, effective but time-intensive. An automated business intelligence (BI) data analytic solution was devised including data ware house modelling, integration services, analysis services, and reporting services. Online Analytical Processing (OLAP) cube methodology enabled a multidimensional cube for data components. Hip fracture scorecards and dashboards can now sustain improvement efforts.

Study Sample or Initiative Scope: All hip fractures (2011-2016) were tracked through the care continuum; key metrics were time to surgery, length of stay and access to inpatient rehab.

Findings: Utilization of the resulting BI solution has supported quality improvement efforts in building an integrated regional rehabilitation system for patients with hip fracture. Time to surgery now meets provincial targets; more patients are accessing inpatient rehabilitation with improved opportunities for return to home. Further opportunities for improvement (alternate level of care count and days) are also evident as data is trended across time.

Discussion: Tangible results in improved time to surgery, access to rehabilitation, and reduced length of hospital stay are demonstrated to organizational, administrative and policy leaders to sustain

improvement efforts. System cost savings can also be determined. The BI solution is being spread to other patient cohorts such as stroke, to initiate similar regional system change.

Conclusions: Initiating and maintaining change requires reliable data. Our successes have been demonstrated, and subsequently sustained, with the ability to visualize system data in timely ways through the data warehouse and OLAP cubes. These results are easily transferable to health quality improvements for other patient populations.

Senior-Focused Care

Poster Number: 23

Title: GERIMEDS: Generating an Effective Rehab Initiative for Medication Education During Inpatient Stay

Authors (Primary First): Jennifer Ireland; Mary Barber; Anastasia Shiamptanis; Kelvin Chu; Hyacinth Elliott; Katie Stock; Alison Ha; Stephanie Ross; Alison Lake

Affiliation of Primary Author: Toronto Rehab - University Health Network

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

ABSTRACT

Purpose: The GERIMEDS project aims to develop and implement a standardized IP medication program to address current clinical practice gaps and in so doing promote patient safety, engagement and education while increasing staff efficiency and communication.

Relevance: Clinically GERIMEDS identifies barriers and enablers to patient medication self-administration and minimizes missed opportunities for assessment, intervention and education. It reduces duplication, implements clinical communication and decision support tools, and improves IP collaboration, communication and patient care.

Methods & Analysis:
Phase 1:

- Utilize the Clinical Best Practice Process Model. Complete EHPIC course. Comprehensive literature review. To identify current practice strengths and gaps: conducted staff survey and patient survey.

Phase 2:

- Based on the findings in Step 1, developed new tools (Screening Tool; Step 1 – Knows & Shows (6 forms to support 6 dosage forms of medication); Step 2 – Does (Self-Meds); Educational Handout

Phase 3:

- Provide education to the IP team.
- Implement a pilot of the GERIMEDS protocol and tools.
- Evaluate the effectives and feasibility of the GERIMEDS protocol and tools.
- Develop a sustainability plan.

Study Sample or Initiative Scope: Patients are deconditioned, frail, medically complex with multiple co-morbidities who stay 4-6 weeks. Annually admit an average of 220 older adults.

Findings: Found a lack of evidence regarding a standardized protocol to address patient's self-management of medication. Using evidenced-based strategies including a patient-centred, stepwise approach and adult learning principles, GERIMEDS developed a new medication process and 9 resources to positively impact patient care for all patients. Initial pilot study feedback indicates positive measures, enough to warrant a full role out across the service.

Discussion: GERIEMEDS optimizes patient safety, program efficiency, IP communication and collaboration, patient and team satisfaction and confidence. The tools support education, assessment and intervention for all patients. It unites the IP team, focusing on a comprehensive and individualized process through a patient's rehabilitation and may reduce medication errors post discharge.

Conclusions: GERIMEDS advances patient safety regarding medication awareness and self-management by providing a standardized step-wise approach to assessment, documentation, intervention and education of medication safe practices. The standardized communication practices optimize safety, promote patient engagement and prevent harm.

Senior-Focused Care

Poster Number: 24

Title: Optimizing the safe transition of medically complex seniors from acute care to inpatient geriatric rehabilitation – Interprofessional Patient Transfer Form

Authors (Primary First): Karlee Lin; Bindhu Sadasivan; Shannon Knelsen; Jane Ballantyne; Carol Skanes; Alison Lake

Affiliation of Primary Author: University Health Network - Toronto Rehab

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

ABSTRACT

Purpose: Develop and implement a transfer of accountability tool to optimize the safe transition of medically complex seniors during transfer from acute care to Geriatric rehabilitation to accurately capture appropriate and essential patient information.

Relevance: At the clinical level to develop processes to prevent harm and optimize safety of patients during admission to rehabilitation. Systemically to optimize timely transfer of information and implementation of appropriate communication mechanisms, a priority of Accreditation Canada, with which this project directly aligns.

Methods & Analysis:
Stage 1:
- Staff survey
- Obtain baseline data on admissions regarding missing patient information and how many phone calls/emails made to obtain pertinent information

Stage 2: Develop TOA tool
- Developed the Interprofessional Transfer Form (IPTF)
- Obtain feedback regarding effectiveness
- Revise tool as needed

Stage 3: Education to staff
- Provide education to the IP team at TR and TGH
- Implement a pilot of the IPTF at TR and TGH
- Based on feedback revise tool as needed

Stage 4: Further evaluation, education and implementation
- Expand education and implementation of IPTF to other referring organizations

Study Sample or Initiative Scope: Participants will average 220 per year. They are medically complex older adults with multiple co-morbidities, deconditioned and frail.

Findings: The IPTF was developed and since implementation has been completed for 83% of admissions from one pilot site. There has been a significant reduction in missing information noted at the time of admission and a decrease in the number of phone calls and/or e-mails required to obtain essential patient information at time of admission. Revisions were made based on team feedback. Implementation has expended to other external referral sources

Discussion: ITPF optimizes patient safety and patient care at a vulnerable transfer of accountability juncture through standardizing the communication process between acute care and rehabilitation. It provides an opportunity for an open discussion and partnering between services with the common aim of enhancing patient safety through education and prevention of harm.

Conclusions: Without standardized communication a gap existed leaving patients vulnerable to unsafe situations where medical supplies, devices or medications may not be available upon transfer. Creation of a TOA tool optimized safe transitions of medically complex seniors by capturing appropriate and essential patient information.

Senior-Focused Care

Poster Number: 25

Title: Community Referral Pathway to Rehabilitation Services and Interprofessional Assessment for Complex, Frail, Vulnerable Seniors

Authors (Primary First): Kelly Tough; Anne Speares; Maggie Bruneau; Jacqueline Lumsden

Affiliation of Primary Author: Providence Healthcare

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

ABSTRACT

Purpose: Identify frail seniors and provide appropriate interventions to avoid admission to hospital and/or to prevent further decline in health status and independence, allowing them to stay in the community for longer.

Relevance: Our organization wants to optimize rehabilitation interventions for complex, frail, vulnerable seniors to support this population and align with the strategic priorities of the Assess & Restore Initiative, the Ministry of Health and Long Term Care (MOHLTC) and Local Health Integration Networks (LHINs)

Methods & Analysis: In collaboration with our intersectoral partners, we designed a standardized care pathway to implement and test both the community referral process and the interprofessional assessments. In consultation with our partners, a one-page referral form was developed to allow for quick, easy and accurate communication between referring organizations and our patient flow team. The role of a Navigator was introduced to monitor patients at baseline, two weeks, one month and three months. Patient feedback survey results were used to design the process and we are now moving to working in partnership with patients and families.

Study Sample or Initiative Scope:

- Community Referral Pathway goal 30% outpatient admissions and 6% inpatient admissions from the community
- Target 270 Interprofessional assessments

Findings: Baseline, 2 weeks, 1 mon, 3 mon

- Avg Caregiver Strain Index improved baseline 10.5 to three months 7.8 (lower is better)
- Avg Return to Normal Living Index improved baseline 62.8 to three months 77.5 (higher is better)
- Depression Screening improved baseline 2.0 to three month 1.1 (lower is better)
- Inpatient admissions target of 6% achieved
- Outpatient admissions 26%, slightly below target 30%

- Target 270 Assessments, 150 complete end Q

Discussion: Providing services to patients directly from the community provides early interventions for complex, frail, elderly patients allowing them to stay in the community longer. The programs provide referral options and access to expert rehabilitation services for primary care providers, community organizations and ED's. The programs were presented to the Rehab Care Alliance.

Conclusions:

- Survey results and information collected by the community health navigator provide evidence the program is having a positive impact on patients and their families.
- Reached our target of 6% patients directly admitted to rehab services from the community in Q3.
- 150 Assessments completed by Q3.

Senior-Focused Care

Poster Number: 26

Title: Providing Client Centred Care and Enhanced Education in a Day Treatment Centre

Authors (Primary First): Adrian Vecchio; Jagger Smith; Anna Berall; Ehsan Ghassem Khani

Affiliation of Primary Author: Baycrest Health Sciences

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

ABSTRACT

Purpose: This was a program evaluation of a Day Treatment Centre (DTC) to determine how patient goal setting and improved patient learning modules impact client quality of life and satisfaction with the DTC program.

Relevance: The province of Ontario developed strategies to support older adults aging at home. The DTC is a rehabilitation program for older adults living in the community. Patients attend the DTC to improve function and cope with the progression of chronic disease. Changes in the program were aimed at making the DTC more effective.

Methods & Analysis: A 12-week curriculum was developed to enhance patient experience and increase knowledge and management of health conditions. Face valid client surveys were created for the purpose of measuring patient experience and quality improvement. Newly admitted patients to the DTC completed pre- and post-program surveys that included questions about demographic characteristics, quality of life, engagement in goal setting, understanding of their care plans during and after the program, and satisfaction with the program. Data analyses included descriptive and chi-squared tests for group comparisons.

Study Sample or Initiative Scope: Admission data from 81 patients showed a mean age of 80.1, majority were female (59.3%) and married (55.6%) and 45.7% used canes and 56.8% walkers.

Findings: A statistical snapshot of patients who completed pre and post surveys showed improvement for quality of life well-being domains for pain, mood, energy, family/friends, and the ability to do chores and for describing their life as a whole. Patients reported increased knowledge about managing their health condition and high satisfaction with the care and quality of the service delivered by staff.

Discussion: Patient engagement was facilitated through goal setting that allowed patients to identify and plan their individualized care needs. Patients were able to increase knowledge and management of their health condition while attending the DTC through the support of the multi-disciplinary team and education modules provided during the program.

Conclusions: The DTC can positively impact quality of life and improve patient knowledge about chronic disease management for older, frail adults living in the community. The DTC provides health care services to help maintain the physical, psychological, and social well-being of older adults.

Senior-Focused Care

Poster Number: 27

Title: Engaging Clients in Falls Prevention on an Inpatient Rehabilitation Unit – Listening to the Client Voice

Authors (Primary First): Deborah Lappen; Anna Berall; Amy Davignon; Sandra Gardner; Leslie Iancovitz; Anita Debbie Mendelson

Affiliation of Primary Author: Baycrest

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

ABSTRACT

Purpose: The purpose of this study is to engage clients and family members in falls prevention by translating patient identified falls risk factors into collaborative interventions for patient centered individualized falls care plans.

Relevance: Patients are admitted to the Slow Stream Rehabilitation Unit with the goal of improving function, and falls risk can be quite high. As a quality improvement initiative, falls safety huddles along with Individualized care planning for falls were identified as the main change idea that would facilitate improvement.

Methods & Analysis: Newly admitted patients complete an interview administered patient falls risk self-assessment modified from the "Check Your Risk for Falling" (Rubenstein et al. 2011) to include inpatient falls risk factors. Patients evaluate the tool for increased self-awareness of falls risk and nurses evaluate the tool for helpfulness and for generating falls prevention strategies. Two patients a week identified as high risk receive a safety huddle. The tool has been used to inform safety huddles. Patient characteristics were collected. Data analysis included descriptive summaries and chi-squared tests for group comparisons.

Study Sample or Initiative Scope: Data from 48 patients included a mean age of 83.8 years, majority female 62.5 %, English speaking, with a high admission mean falls risk score.

Findings: Completing the falls risk self-assessment tool increased awareness and knowledge of patients' falls risk (87.5%). This was significantly higher (p=.001) among patients with high admission falls risk scores than with low. Nurses indicated a high percent of level of helpfulness (97.8%) in translating patient identified falls risk factors into interventions for individualized care plans. Patients rated high satisfaction with the safety huddles.

Discussion: The patient falls risk self-assessment tool is useful in engaging clients in the falls care planning process, and can assist in increasing patient awareness and knowledge of falls risk factors. This tool is also helpful for informing safety huddles of patient self-identified falls risk factors.

Conclusions: Client-centered care involves engagement in care planning. These study methods were shown to be effective in accessing the patient voice and incorporating patient identified falls risk factors into individualized care plans. This tool could be applied to other rehabilitation settings involving care for older adults.

MSK

Poster Number: 28

Title: Lessons learned in spreading an Early Patient Referral Model across acute care and rehab partnerships

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

Affiliation of Primary Author: GTA Rehab Network

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

ABSTRACT

Purpose: The purpose of this initiative is to spread an 'early referral model' to inpatient rehab in support of a best practice recommendation that active rehab should commence no later than six days following a hip fracture surgery in a post-acute setting.

Relevance: As a patient outcome, early access to an inpatient rehab program increased the likelihood of returning home for patients post-hip fracture (CIHI, 2015) . Key factors in adopting this early referral model will also be relevant to other organizations striving to improve patient flow to inpatient rehab.

Methods & Analysis: This initiative was implemented utilizing a quality improvement approach with the project aim of reducing the acute care length of stay from surgery to discharge to an average of six days post-hip fracture surgery for rehab discharges. Participating acute care and rehab hospitals identified project leads and project sponsors to support implementation, and also identified cross sector partner(s) to work with. Participating sites also collected referral process data that were used as a basis of discussion during regular partnership meetings to identify issues and implement solutions in a PDSA cycle approach.

Study Sample or Initiative Scope: Ten acute care and ten rehab hospital sites working with patients post-hip fracture participated in implementing the early referral model.

Findings: Over an implementation period ranging from three to 15 months, two of the acute care hospitals surpassed the six-day average length of stay (from surgery to discharge to inpatient rehabilitation) target, and two others were within 1.6 days. Enhanced communication and collaboration across acute care and rehab partnership was identified as the most positive outcome by participants.

Discussion: Key factors that contributed to successful implementation of this change initiative across participating sites include (a) engaging stakeholders at all levels, (b) using objective referral data to guide identification of issues and solutions, and (c) meeting regularly with project leads of participating sites.

Conclusions: Implementing change initiatives is complex. Using a quality improvement approach in spreading an early patient referral model was effective in building relationship across acute care and rehab participants. Equally important is to consider infrastructure and supports needed to sustain gains achieved by participants.

MSK

Poster Number: 29

Title: Adaptation and implementation of the Good Life with osteoArthritis in Denmark (GLA:D®) program in Canada

Authors (Primary First): Mariel Ang; Rhona McGlasson

Affiliation of Primary Author: Bone and Joint Canada

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

ABSTRACT

Purpose: The GLA:D® program has improved quality of life outcomes for its participants with hip and knee osteoarthritis in Denmark. The purpose of this initiative is to adapt the GLA:D® program in the Canadian context and to implement the program in Ontario.

Relevance: One in four people in Canada have osteoarthritis (OA), a chronic disease that can lead to reduced physical activity and quality of life. To our knowledge, Canada has no practice guidelines for the management of OA. GLA:D® is an evidence-based conservative management program that can be adapted to serve Canadians with OA.

Methods & Analysis: The project received three year implementation funding from the Ontario Trillium Foundation. Adaptation of the program comprised of translating materials, data base and training appropriate health care providers in Canada to provide the program. Materials for the public were simplified to a grade 8 English level. Other health care practitioners were trained and telephone interviews were used to collect their feedback on the training course. Correspondence with Danish researchers to identify and maintain core principles of the program while adapting materials to reflect the Canadian context was essential.

Study Sample or Initiative Scope: 65 health care providers trained: 43 physiotherapists, 18 kinesiologists, 3 chiropractors and 1 CSEP auditor from private and publicly funded settings

Findings: Feedback from health care providers who took the training course resulted in modifications of the training program to make training active on both days. Interviews advised that registered kinesiologists with clinical experience can run the program. Chiropractors with access to a gym facility can implement the program. Public centers were limited in their ability to implement. Private clinics were much more effective in implementation.

Discussion: The GLA:D® program has been adapted for Canada under the trademark GLA:D™ Canada. Implementation has begun in Ontario. The data base has been established and data from patient

outcomes will advise on the success of the program after year 2 of the program's implementation. Further advocacy is needed to implement the GLA:D™ Canada program in the publicly funded sector.

Conclusions: An evidence-based conservative management program for individuals with OA is being introduced in Canada and implemented in Ontario. The program is being provided by multiple health care practitioners to maximize access across the country. Plans are being made for the program to be rolled out nationally.

MSK

Poster Number: 30

Title: A Framework for reducing Alternate Level of Care (ALC) designation in elderly patients with hip fractures

Authors (Primary First): Suzanne Ezekiel; Katherine Chow; Khadra Mohamed; Tara Raine; ; ; ; ; ; ; ;

Affiliation of Primary Author: St. Michael's Hospital

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

ABSTRACT

Purpose: To develop a framework to reduce ALC in the elderly with hip fractures. This framework demonstrates how a comprehensive plan supports elderly patients' return home to wait for long term care placement preventing lengthy admissions in acute care.

Relevance: Elderly patients, who require acute care for injuries such as hip fractures, often have ongoing complex medical issues requiring extended hospital stay waiting for long-term care (LTC) placement. This is problematic in acute care centers.

Methods & Analysis: The core components of the framework such as early referral to community resources, setting clear expectations around a discharge date, supporting family by balancing patient/family preferences with patients' needs, and knowledge of and openness to alternatives to LTC in the community were implemented. In both of these cases ALC was avoided. Through this process the patients were supported appropriately in the community and each admitted to LTC within six weeks after discharge from hospital.

Study Sample or Initiative Scope: Two case studies are used to demonstrate how this framework can be implemented to reduce ALC in the elderly with hip fractures.

Findings: ALC designation in the acute care setting can be eliminated by utilization of this framework. Implementing the core components of the framework has shown to be effective in reducing ALC in this population. Both patients discussed were able to return to the community with appropriate supports in place until they were admitted to LTC.

Discussion: Implementation of this framework has demonstrated that ALC designation can be reduced or even eliminated in this population. Application of this framework in other complex care populations throughout the acute care setting could result in a reduction/elimination of ALC designation facilitating more appropriate use of acute care beds.

Conclusions: A framework for reducing ALC has demonstrated its usefulness among elderly patients with hip fractures. Implementation of the framework by case managers has shown how a comprehensive plan can be developed to facilitate patients' return to the community while waiting for long term care placement.

MSK

Poster Number: 31

Title: Volunteers Enhancing the Patient Experience

Authors (Primary First): Kimberley Meighan; Theresa Shiel; Paula Shing; Ed Rudnicki

Affiliation of Primary Author: Sinai Health System

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

ABSTRACT

Purpose: As one of the early adopters of the GTA total joint initiative, we wanted to see how we could enhance the patient experience by introducing volunteers as a member of the care team within our group classes for patients with total knee replacements.

Relevance: By implementing a volunteer program within a group setting, our goal was to enhance the patient experience and support the primary therapists to have more individualized time with each patient.

Methods & Analysis: Case Manager met with the Manager of Volunteer Services to discuss initiative and recruitment strategies. An environmental scan was initiated to establish the need for volunteers within the program. A volunteer job description was created, but it was critical to ensure policies and practices were followed while navigating within a unionized environment. Volunteers were provided with orientation and hands-on training to ensure they had the tools and knowledge to be a member of the team.

Study Sample or Initiative Scope: We started by adding a volunteer to one group and evaluated after 12 wks. After a few PDSA cycles, more volunteers were recruited for other groups.

Findings: Volunteers provided critical support, encouragement, and used distraction techniques during treatment that was often painful. Therapists were able to provide more 1:1 time with patients knowing a volunteer is there to observe, interact with patients and provide equipment as directed. A total of 1,858 dedicated volunteer hours to date with excellent patient feedback received through surveys, and reported increased staff satisfaction.

Discussion: Prior to the introduction of volunteers, therapists were seeking opportunities to ensure sufficient quality of time with each patient. A positive outcome from this initiative was former patients who completed their rehab have now become volunteers within the same program, providing a rich peer resource to our current patients drawing from common shared lived experiences.

Conclusions: With the successful implantation of volunteers to the program, feedback from both staff and patients has been extremely positive. Volunteers feel empowered and an integral member of the care team. Patients look for the volunteer, and report how supported they have felt during their rehabilitation.

MSK

Poster Number: 32

Title: Facilitating Early Mobility and Functional Activities by Removing Hip Precautions Following Primary Elective Total Hip Arthroplasty

Authors (Primary First): Meaghan Robson; Leah Schwartz; Rose Lee; M Ellen Newbold; Lisa Buenaventura; Mary Van Impe

Affiliation of Primary Author: St. Michael's Hospital

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

ABSTRACT

Purpose: The purpose of this initiative is to evaluate how the removal of hip precautions has impacted staff's approach to early mobility and date of discharge from acute hospital setting for patients with primary elective Total Hip Arthroplasty (THA).

Relevance: The length of stay (LOS) following primary elective THA is decreasing and initiatives to assist with LOS reduction should be adopted. Hip precautions restrict functional activities following primary THA, and contribute to staff and patient unease regarding mobilizing secondary to fear of dislocation or trauma.

Methods & Analysis: The surgical team evaluated the research and found that hip precautions do not significantly contribute to post-operative complications following primary THA with lateral approach. . Education was provided to health disciplines and nursing staff. Nursing staff were encouraged to mobilize patients on postoperative day (POD)0, health disciplines staff began to assess and treat patients without hip precautions, and discharge date was set for POD2. The initiative was evaluated by tracking POD0 mobility, reviewing discharge date statistics and consulting nursing and health disciplines team members regarding perspectives.

Study Sample or Initiative Scope: All primary THA patients on the inpatient orthopaedic unit, regardless of age, gender or joint destruction

Findings: The absence of hip precautions supports earlier patient functional activity, which may be correlated with decreased LOS. Nursing and health disciplines staff reported an overall positive reaction to removal of hip precautions. Nursing staff reported increased comfort and willingness to mobilize patients prior to Physical or Occupational Therapy assessment. The results of the POD0 dangle are still being collected and further analysis is required.

Discussion: Hip precautions for primary THA are no longer supported in the literature. . They can impede early mobility from the nursing perspective, and their removal supports increased comfort mobilizing patients. Earlier return to functional activities is demonstrated, which may contribute to improved efficiency of THA cases, and subsequently may impact QBP funding for THA.

Conclusions: The barriers that prevent early mobility need to be disassembled to ensure patients are optimized in the acute care setting prior to discharge home. Hip precautions can create a barrier and their removal leads to increased mobility and improved outlook towards early mobility on orthopaedic inpatient units.

MSK

Poster Number: 33

Title: Expression of IGF-1 and IGF-2 in myofascial pain syndrome (MPS)

Authors (Primary First): Liza Grosman-Rimon; Dinesh Kumbhare; John Flannery; Lukas Linde; John Srbely

Affiliation of Primary Author: Division of Physical Medicine and Rehabilitation, Toronto Rehabilitation Institute

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

ABSTRACT

Purpose: The objectives of our study were to compare the levels of IGF-1 and IGF-2 in patients with acute myofascial pain syndrome (MPS) versus healthy asymptomatic controls and to examine sex differences.

Relevance: To Identify the role of IGF-2 in patients with MPS so as to provide clinicians with a potential tool to assist in the treatment of MPS.

Methods & Analysis: Participants were recruited randomly from the hospital emergency department with acute MPS and non-MPS controls were recruited via advertisements in the hospital and community. The group and sex differences between serum IGF-1 and IGF-2 were assessed. IGF-1 and IGF-2 were measured systemically in patients with MPS within 24 hours of symptoms and in healthy controls, using antibody-immobilized beads on a Luminex analyzer.

Study Sample or Initiative Scope: 43 patients were recruited randomly from the ER with acute MPS; 21 non-MPS controls were recruited via advertisements in the hospital and community.

Findings: No significant differences were observed in IGF-1 levels (mean ± SEM, pg/mL) in men (99,446.77 ± 6,938.45) vs women (79,930.75 ± 6,173.53) with MPS and healthy asymptomatic males (91,847.32 ± 6,938.45) and women (107,512.40 ± 8,730.69). The mean IGF-2 levels of men (253,343.00 ± 39,180.08) and women (204,524.20 ± 35,610.51) with MPS were lower than those of healthy men (428,177.20 ± 39,180.08) and women (511,274.4 ± 49,300.52).

Discussion: IGF-2 was lower in patients with acute MPS versus healthy asymptomatic controls. No differences were observed between males and females in the groups. Future studies should investigate the mechanisms and the role of IGF-2 in muscle maintenance and repair in MPS.

Conclusions: The results from the study can be used as preliminary data for further research in rehabilitation.

MSK

Poster Number: 34

Title: Factors associated with change in function in hip fracture patients on two geriatric rehabilitation units

Authors (Primary First): Anita Debbie Mendelson; Susan Jaglal; Chelsea Wong; Fidelma Serediuk; Brendan Pynenburg; Catherine Milne Gibson; Wendy Laskey; Jurgis Karuza; Nancy Jones; Leslie Iancovitch; Anna Berall; Erica Anders

Affiliation of Primary Author: Baycrest Health Sciences for Geriatric Care

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

ABSTRACT

Purpose: This study describes characteristics and outcomes of hip fracture patients admitted to a high tolerance (HT) and slow stream rehabilitation(SSR) unit and determines factors associated with change in function.

Relevance: Two common types of post acute rehabilitation streams in Ontario are high tolerance and slow stream. The allocation of patients with hip fracture into these streams is based on criteria that utilize clinical judgment as there is a lack of empirical evidence to inform standardization of patient triaging.

Methods & Analysis: A retrospective chart review was conducted on hip fracture patients admitted to HT and SSR over a one year period. Demographic and functional characteristics abstracted included age, sex, premorbid living situation, premorbid gait aid use, premorbid independence with bathing and instrumental activities of daily living (IADL), existing Community Care Access Centre (CCAC) service, number of comorbidities, and length of acute care stay. Correlational analyses examined associations between these characteristics and functional change during post acute rehabilitation as measured by the functional independence measure (FIM).

Study Sample or Initiative Scope: Data from 130 patients (HT n=73, SSR n=57) included a mean age of 83.2 and 86.9(HT, SSR) and mean FIM admission scores of 62.3 and 45.9 (HT, SSR).

Findings: Patients in SSR are significantly older, more dependent with premorbid bathing and IADLs and had lower FIM admission scores, longer acute care stay and a greater number of comorbidities than HT. Patients who were independent in bathing, grooming and dressing premorbid and those admitted to high tolerance had a greater change in FIM scores while patients with a greater number of co morbidities and CCAC pre morbid had less change in FIM.

Discussion: Understanding patient characteristics on admission can help triage patients into the appropriate rehabilitation stream and determine allocation of resources. These findings along with future research will help inform the development of a standardized triage tool. The FIM tool and other key characteristics of premorbid function may be used as key determinants.

Conclusions: Patients in SSR are significantly different from those in HT, requiring programs of different lengths, intensities, and resources. Key characteristics identified on admission may help triage patients into the appropriate stream. Follow up studies may include examining characteristics related to functional change over time.

Cardiac / Pulmonary

Poster Number: 35

Title: An Educational Model to Promote Self-Management for Persons Living with Heart Disease and Diabetes

Authors (Primary First): Crystal Aultman; Nicole Sandison; Gabriela Ghisi; Paul Oh

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

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

ABSTRACT

Purpose: This initiative aimed to develop a cardiac rehabilitation patient education curriculum that leads to increased knowledge, behaviour change, and ultimately improved health outcomes.

Relevance: Well-designed patient education is a vital component of comprehensive cardiac rehabilitation programming and has a strong influence on successful recovery following cardiac events, improvement in health behaviours, and future morbidity and mortality.

Methods & Analysis: Tools were developed, validated, and implemented to assess information needs in cardiac rehabilitation (CR) patients and assess knowledge of coronary artery disease. Development of the educational curriculum was informed by the information needs of patients, their medical status and demographics. The curriculum was made available through three delivery methods - a classroom, website, and an online school. The curriculum and delivery considered principles of adult learning, health literacy strategies, theories of self-management and learning, and the Health Action Process Approach - a theory of health behaviour change.

Study Sample or Initiative Scope: The curriculum is available to patients enrolled in structured cardiac rehabilitation programs in Canada.

Findings: An education intervention in cardiac rehabilitation can increase patients' knowledge and lead to behaviour change. The development of a curriculum should consider several factors including the information needs of patients, health literacy, medical status, age, language, culture, socioeconomic status and time point in recovery. Materials may be authored by health professionals but should also ideally have strong contributions from patients.

Discussion: Education in cardiac rehabilitation is an effective strategy to increase knowledge and lead to behaviour change. Knowing this, it is important to consider delivery methods that reduce barriers to accessing evidence-based health information. Patient involvement, cultural adaptation, and translation of materials further improve widespread access.

Conclusions: An education intervention in cardiac rehabilitation can increase patients' knowledge and lead to behaviour change. Additional research is needed to investigate how health behaviour is influenced by knowledge.

Cardiac / Pulmonary

Poster Number: 36

Title: Translation and Cultural Adaptation Process for an Education Curriculum to Cardiac Rehabilitation Patients in Brazil

Authors (Primary First): Gabriela Chaves; Raquel Britto; Paul Oh; Gabriela Ghisi

Affiliation of Primary Author: Federal University of Minas Gerais

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

ABSTRACT

Purpose: To describe the process to translate and culturally-adapt an education curriculum to cardiac rehabilitation (CR) in Brazil. This curriculum is designed to enable CR patients to take charge of their medical condition, and improve their risk factors.

Relevance: Cardiovascular disease is the leading cause of death worldwide. Research shows that CR reduces death rates and improves quality of life by offering multiple recommendations, including education. The availability of comprehensive CR programs – exercise and education – is low in middle-income countries, including Brazil.

Methods & Analysis: The educational curriculum was developed at TRI-UHN (Toronto). The curriculum includes the following: 24 educational weekly group education sessions strategically sequenced in accordance with the CR program learning outcomes, a comprehensive education guide, and individual care plans. The process to translate and culturally adapt these tools to Brazilian Portuguese followed guidelines for best practice and was encompassed 8 phases: preparation, translation, back-translation, back-translation review, harmonization, cognitive debriefing, review of cognitive debriefing results and finalization and proofreading.

Study Sample or Initiative Scope: To shift the emphasis of CR in middle-income countries from exercise only to a comprehensive approach including education to promote behaviour change.

Findings: Materials were translated to Portuguese by a certified translator, and back-translated to English as a quality-control step. Health providers reviewed the translated guide and recommended that all chapters were culturally adapted. The newly translated materials were tested for cognitive equivalence on a group of 5 Brazilian CR patients. No major problems regarding the comprehensibility and cognitive equivalence of the translation were observed.

Discussion: It has been demonstrated in high-income countries that patient education promotes behaviour change. Similar results in middle-income countries could improve the quality, effectiveness

and availability of CR programs. The availability of a translated and culturally-adapt education curriculum is a first step in this direction.

Conclusions: The education curriculum translated and culturally-adapt to Portuguese is a sequential and theoretical strategy that has the potential to reach other CR programs in Brazil in order to support cardiac patients' education. This process could be use to different languages to offer this curriculum to other cultural groups.

Cardiac / Pulmonary

Poster Number: 37

Title: Strategies to Meet Length of Stay and FIM Efficiency Targets for Non Stroke Rehab Patient Groups

Authors (Primary First): Ellen Richards; Andrea Guth

Affiliation of Primary Author: Grand River Hospital

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

ABSTRACT

Purpose: There was an identified need on the inpatient rehabilitation unit at Grand River Hospital to improve FIM efficiency and LOS in non stroke rehab patient groups following the implementation of strategies to meet stroke quality based procedures.

Relevance: Explores strategies to improve access to rehab beds and functional outcomes for all RPG's. Identifies opportunities for efficient use of therapy resources, and improving communication and team work between allied health and nursing steams (less work in silos). Explores utilization of available community resources.

Methods & Analysis: (1) Refresh of FIM documentation; (2) Creation of a system to convert admission FIM scores into an RPG, and utilize provincial benchmarks for length of stay; (3) Identification of a team member who would be responsible for ensuring ongoing utilization of the system and communicationo of discharge date to patietns and families; (4) Implementation of strategies (eg. group programming, ADL programs during morning care routine in partnership with nursing) to increase rehab intensity for non stroke RPG's; (5) Creation of therapy teams.

Study Sample or Initiative Scope: Implemented on a 33 bed mixed general rehabilitation unit with a combination of designated stroke and general rehab beds.

Findings: Will be presented as FIM efficiency improvements (0.7 to 1.3) from 2012 to 2016, and length of stay improvements (35 days to 28 days) from 2012 to 2016.

Discussion: It is possible within the environment of implementing stroke best practices, to also have positive outcomes for non stroke RPG's.

Conclusions: It is possible within the environment of implementing stroke best practices, to also have positive outcomes for non stroke RPG's.

Spinal Cord Injury

Poster Number: 38

Title: SCI Research - "The Role of the Consumer"

Authors (Primary First): Barry Munro; Michelle Sweeny

Affiliation of Primary Author: Canadian Spinal Research Organization

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

ABSTRACT

Purpose: A video series designed to empower the patient consumer to advance leadership and organization development surrounding advocacy for spinal cord research. By giving hope, creating opportunities and engaging stakeholders in finding a cure for paralysis

Relevance: The motivational video series will inspire strong advocate leadership which will advance the understanding of spinal cord research; create active participation in research and funding to find a cure for paralysis.

Methods & Analysis: The video series provides descriptions for the underlying science of spinal cord injuries and potential treatments. Families with members suffering from paralysis are provided with the reality and the challenges of funding spinal cord research. This way they can support the retention of talented researchers by forming a vibrant leadership advocacy group with a strong voice.
The video series discusses how survivors can assist in finding a personal meaningful “cure” in their lifetime through the creation of “urgency” with stakeholders.

Study Sample or Initiative Scope: The videos break down the biology of the spinal cord by explaining what happens following an injury and present research synopses.

Findings: The past 30 years spinal cord research has celebrated many successes but unfortunately these breakthroughs do not get media attention. We need to bridge the gap between published scientific articles and the spinal cord community. Education is crucial to develop leadership in advocacy for a cure.

Discussion: Patient engagement matters. A patient group that is well informed, organized, focused, and relentless can drive successful research forward. In order to find the funds needed to support consumer-focused research; we need to start understanding what the consumer values by asking questions related to significant symptoms, negative impacts and positive change.

Conclusions: In spring of 2017, you will be able to download an app or visit a portal to watch and share seven 3 to 5 minute videos that will leave you armed with knowledge and give you the motivation and confidence to advocate for a cure.

Spinal Cord Injury

Poster Number: 39

Title: The importance of economic evaluations in rehabilitation research

Authors (Primary First): Brian Chan; Cathy Craven

Affiliation of Primary Author: Toronto Rehabilitation Institute

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

ABSTRACT

Purpose: To discuss the importance, implications and opportunities of economic analyses in rehabilitation research.

Relevance: With cost constraints in the health care system, policymakers are increasing incorporating cost considerations in their decision making process when deciding on whether to fund programs.

Methods & Analysis: The concepts that are considered when examining the economics in a rehabilitation population will be presented.

Study Sample or Initiative Scope: This analysis focuses on the spinal cord injury population.

Findings: A published study evaluating the cost-effectiveness of electrical stimulation for pressure ulcers in a spinal cord injured population in Ontario will be used as a case study to highlight the costs and outcomes that are considered when evaluating the economics in a rehabilitation population.

Discussion: Economics are a key component to the decision making process of health care policy makers. The lack of available information in this area hinders the decision maker from adequately funding needed services to patients. There is a need to embed economic variables into future clinical studies on the rehabilitation population.

Conclusions: Additional research in the cost of rehabilitation and cost-effectiveness of rehabilitation interventions is needed to facilitate proper funding of this vital health care service.

Oncology

Poster Number: 40

Title: Sexual Health and Rehabilitation eClinic (SHAReClinic): A Movember TrueNTH Canadian Solution

Authors (Primary First): Anika Gentile; Andrew Matthew; Richard Wassersug; Deborah McLeod; Antonio Finelli; Stacy Elliott; Dean Elterman; Lisa Osqui; John Robinson

Affiliation of Primary Author: University Health Network

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

ABSTRACT

Purpose: The objective of the TrueNTH Canadian Sexual Health solution is to establish a national prostate cancer specific and facilitated online Sexual Health and Rehabilitation Clinic (SHAReClinic) for patients and their partners.

Relevance: Sexual dysfunction as a consequence of treatments for prostate cancer has the single greatest negative impact on patient (and their partners) health-related quality of life; yet, few patients and partners receive sexual health programming.

Methods & Analysis: A pan-Canadian, multidisciplinary team of experts was established to develop an online intervention with personalization based on treatment received, sexual orientation, and relationship status. The combination of a multi-disciplinary expert consensus was used to produce an interactive and personalized SHAReClinic.

Study Sample or Initiative Scope: In Canada, approximately 21,600 men are diagnosed with prostate cancer each year. The SHARe-Clinic will be offered to all patients and their partners.

Findings: The SHAReClinic is a national web-based platform that offers patients (and their partners) a biopsychosocial approach to sexual health after treatment for prostate cancer by supporting them in pro-erectile therapy use, in maintaining intimacy, and in re-engaging in regular satisfying sexual activity. Content presented is personalized, structured, and facilitated by personalized health coaches.

Discussion: Utilizing online platforms may offer an effective and cost-efficient way of closing that gap in comprehensive cancer care across Canada. The SHAReClinic will be piloted at selected cancer centres across Canada before being offered to all Canadian prostate cancer survivors and their partners.

Conclusions: The SHAReClinic offers equal access to comprehensive and personalized cancer care to Canadian prostate cancer patients, and their partners in order to improve sexual function and to

support the maintenance of intimacy following treatment. The platform and feasibility research design will be presented.

Cross Population

Poster Number: 41

Title: If you build it, they will come: Adoption of a Research Volunteer Pool (RVP) for contact and recruitment of outpatient and community volunteer rehabilitation research participants.

Authors (Primary First): Simon Jones; B. Catharine Craven; Louise Brisbois

Affiliation of Primary Author: Toronto Rehabilitation Institute

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

ABSTRACT

Purpose: The RVP is intended to facilitate participation in research by maximizing patient and organizational engagement, minimizing patient burden, and limiting exposures to ethical dilemmas and privacy risk.

Relevance: The most common reason why rehabilitation research studies fail is under-enrollment. The RVP has the potential to facilitate research participation from the perspective of both the participant and the researcher. Adequate enrollment increases the probability of research studies having full impact.

Methods & Analysis: The RVP will host contact information and nominal health information as initial screening criteria for volunteers who are interested in participating in research. A contract research organization has been hired to build and maintain the online database. A team of interested scientists have been working to determine the requisite research functionality, minimum data set, and level of transparency for the construction of the online RVP. Teams of scientists, clinical researchers, and clinical champions will test and implement structures for registration of inpatients, outpatients, and community volunteers into the RVP.

Study Sample or Initiative Scope: The RVP will be open to approximately 2,300 inpatients and 140,000 outpatient visits, to enable 40 new rehabilitation research studies per year.

Findings: The RVP will allow online registration from computers, kiosks, and smartphones. Diverse access portals, following current web accessibility standards, will cater to our diverse target population. Early-adopters of the pilot RVP have been helping to win buy-in from other scientists, supporting a more comprehensive investment. Researchers will submit grant proposals with confidence, knowing the RVP contains sufficient potential participants.

Discussion: The RVP is a means for engaging interested patients and families with research beyond their patient stay. Researchers will pre-screen RVP contacts by coarse criteria to focus their recruiting efforts

efficiently. The RVP will be self-sustaining, relying on participants and researchers to update contact information on participant RVP profiles.

Conclusions: The RVP has been commissioned and will be launched by mid-2017. Success of the project depends on volunteer and organizational engagement: a low participant burden must be balanced against a level of utility sufficient for our institute's research mandate.

Cross Population

Poster Number: 42

Title: "No Practitioner is an Island': Pioneering Bridges to Advance Professional Practice and Interprofessional Education for Rehabilitation Service

Authors (Primary First): Melissa Goddard; Shawn Brady; Rachel Devitt; Anna Marie Sneath

Affiliation of Primary Author: Providence Healthcare

Abstract Category: Knowledge Transfer and Exchange Initiative

ABSTRACT

Purpose: Bridging gaps between academics and clinical practice for clinicians and teams, CORE (Competency from On-Going Relational Education) was conceptualized as a quality improvement initiative to increase continuing education within a rehab setting.

Relevance: Offering experiential education at point of care with inter/intraprofessional educational coaching, CORE is a learning tool that asks the question: What would you like to learn within your scope of practice and which profession would you like to learn from? CORE is a cost effective method to increase knowledge translation.

Methods & Analysis: CORE is a unique learning tool to enhance experiential learning principles. CORE offers a paper-based or electronic workbook for reflective practice, goal formation and progress tracking. PDSA cycles have developed and refined the tool. CORE features two innovations: Blank competency lists to empower experiential learning versus traditional methods of scripted competency checklists and educational coaching from any profession.
Evaluating CORE is an on-going process of analyzing quantitative and qualitative data from surveys and participant narratives. Best practices in survey design have been utilized.

Study Sample or Initiative Scope: Phase I CORE surveyed 13 participants and 10 peer coaches from PT, OT, SLP, SW, Rehab Assistant, Dietitian, Nursing. Enrollment is currently on-going.

Findings: Completed surveys and narratives indicate CORE may be an effective tool to advance practice for rehab service.100% of participants who responded indicate CORE has been helpful to increase knowledge, skill performance and interest in Interprofessional education. From qualitative narratives, themes suggest CORE may advance practice by saving time, empowering choice and fostering collaboration in knowledge translation for evidence-based practice.

Discussion: Workplace learning is emphasized in literature as beneficial for healthcare education. CORE embeds learning within the context of real client care situations, which is possibly not seen in all

settings. As clinicians choose educational coaches from any profession, early findings suggest CORE's innovative approach to learning is positively impacting rehab service.

Conclusions: CORE has leveraged the benefits of experiential education to advance practice for all levels of staff experience. Perceived as a valuable tool to be distributed for audience members, CORE is cost-effective, sustainable and practical and has the potential to also support non-clinical staff and teams.

Cross Population

Poster Number: 43

Title: Your goal or mine? Co-creating a process for collaboratively identifying and communicating person-centred goals in inpatient rehabilitation.

Authors (Primary First): Siobhan Donaghy; Stephanie Durocher-LeBlanc; Carly Orava; Billie Alagas; Maria Teresa Salazar; Susan Schneider; Elizabeth Williamson; Jennifer Shaffer

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

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

ABSTRACT

Purpose: To review and revise the processes and tools used to identify collaboratively, goals with patients, and to co-create an educational program for teams in fostering the use of these processes.

Relevance: A review of National Research Corporation Canada (NRCC) scores indicated that less than 50% of patients felt they were involved in decisions about care. An opportunity arose to partner with patients and families through a quality improvement initiative focused on patient engagement in the goal setting process.

Methods & Analysis: An interprofessional quality improvement work group was formed with clinical leaders and staff where areas of opportunity were explored through appreciative inquiry. Structured questions were then generated and posed to patients, families and staff, to further identify opportunities and recommendations. Based on themes that emerged, a PDSA cycle was used with staff, patients & families to create revised tools and processes. An educational program was also co-created with team members, providing role playing examples and practical tips on facilitating patient engagement in the goal setting process.

Study Sample or Initiative Scope: This initiative focused on inpatient adult rehabilitation patients and their families.

Findings: A new clinical documentation tool was created for teams, based on the principles of health literacy, person-centred care and interprofessional collaboration. Patient communication boards were also revised with this focus.

Discussion: This initiative demonstrates the value of a facilitated, collaborative & multi-faceted approach to foster positive change and QI in rehabilitation. It demonstrates the value of providing a structure for which to embed and foster interprofessional collaboration, person-centered care and patient engagement through a team-based quality improvement initiative.

Conclusions: Next steps are to utilize a developmental approach in evaluating the use of the revised tools and processes from both a qualitative and quantitative perspective, and determine the impact of this initiative on enhancing the overall patient experience.

Cross Population

Poster Number: 44

Title: Implementation of an Early Mobility Protocol for Critical Care

Authors (Primary First): Deanna Feltracco; Joanna Parkes; Kerry Doherty

Affiliation of Primary Author: St Michael's Hospital

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

ABSTRACT

Purpose: Our presentation will describe the implementation of a standardized protocol and tools to support staff in early patient mobilization to mitigate functional deficits associated with critical illness.

Relevance: Immobility negatively impacts outcomes yet mobilization activities can be inconsistent due to gaps in knowledge and experience, and lack of tools and resources. An early mobility protocol for the intensive care unit that progressively increases activity may benefit patients and translate to other acute care environments.

Methods & Analysis: An interprofessional working group was established and conducted a literature review. A staff survey was disseminated and explored knowledge and perceptions about mobility. The result was the creation of a protocol outlining criteria for assessing, initiating, and progressing mobility with reference to the ICU Mobility Scale to track progress. In September 2016, physiotherapists and nurse educators provided in-class and bedside education further promoted by activities such as quizzes and prizes in four ICUs. Biweekly auditing of protocol uptake at the bedside is ongoing with real-time feedback to staff.

Study Sample or Initiative Scope: 298 staff received education on the protocol. This included nurses, respiratory therapists, clinical assistants, and physiotherapists.

Findings: In the pre-protocol survey 93% of staff stated they agreed that early mobility is important for patient outcomes in ICU. However, 54% stated that patients were too unstable to mobilize in the ICU. Audits conducted thus far demonstrate that 37 out of 68 patients had staff utilize the protocol with them as evidence by the application of a score. A patient had an average of 3.5 scores documented over a 24 hour period.

Discussion: The strategies used to introduce the protocol were well received by the staff, and can be used for future initiatives. We anticipate that the use of a protocol will assist patients with their rehabilitation as they progress through the healthcare system. Translating this project to other areas of the hospital such as the wards will improve mobility across the organization.

Conclusions: An early mobility protocol can be implemented in the critical care setting. The Early Mobility Protocol guides clinical decision making for initiating early mobility, creates a safe environment for staff and patients, and provides a standardized tool to measure and evaluate the progression of patient mobility.

Cross Population

Poster Number: 45

Title: Building evidence-based clinical practice capacity in the Physical Therapy Department

Authors (Primary First): Barbara-Lynne Furler; Laura Mumme; Michelle Roy; Christie Sharun;

Affiliation of Primary Author: Glenrose Rehabilitation Hospital

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

ABSTRACT

Purpose: The integration of clinical practice leadership, implementation frameworks and a mentorship model will enhance Physical Therapy (PT) Clinical Practice to ensure patients receive evidence-based care and reach their maximum rehabilitative potential.

Relevance: The vision of this hospital centers around innovative clinical care. From a systems perspective, the PT Department lacked a formal process for addressing gaps in translating research into practice. Designated support for frontline clinicians to ensure that patients received evidence-based care was not in place.

Methods & Analysis: In early 2016, an evaluation of PT resources occurred. In the fall, resources were allocated to support evidence-based practice (EBP) implementation. 3 PT clinical practice lead (CPL) positions were created for the Geriatric, Adult and Pediatric Rehab Divisions. The CPLs attended an Implementation Science bootcamp to build knowledge and skills in using the National Implementation Research Network (NIRN) active implementation framework. This framework supports the effective and sustainable adoption of EBP. Following the training, the CPLs were paired with a Knowledge Mobilization Consultant for ongoing mentorship.

Study Sample or Initiative Scope: The PT department comprises of 150 staff members providing care to 5800 patients per year.

Findings: The three core outcomes that have resulted from this best practice initiative are: 1) dedicated resources for PT clinical practice leadership; 2) adoption of an effective and sustainable framework for implementation (i.e. NIRN); and 3) establishment of a mentorship model for implementation science application. CPLs receive regular operation management and implementation science support, which aims to increase their skills and level of confidence.

Discussion: EBP is directly linked with optimal patient outcomes; however, literature has demonstrated that it takes an average of 17 years to successfully translate research into practice (Trochim, 2010). To

this end, the following key steps to build a sustainable system for clinical practice change were dedicated leadership resources, training, and structured mentoring.

Conclusions: To build this clinical practice capacity, it is necessary to identify and put into place key support systems. Leadership support and resources, training and mentorship are key in capacity building. Overall, this initiative improved staff engagement, increased interest in EBP implementation and increased staff morale.

Cross Population

Poster Number: 46

Title: The Power of Change Leadership: Achieving the Right Rehabilitative Care, in the Right Hospital Bed, at the Right Time for Patients across the Health Care System

Authors (Primary First): Teri Shackleton; Susan Reiber; Sue Hillis; Roy Butler; Doug Bickford

Affiliation of Primary Author: SW LHIN

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

ABSTRACT

Purpose: The purpose of this poster presentation is to share our change leadership experience of co-creating a path for health care system change to improve the quality of the Rehabilitative Care journey for hospitalized patients throughout the SW LHIN.

Relevance: Patients and referrers have experienced confusion due to a lack of clarity and standardization regarding the types of post-acute Rehabilitative Care available in our hospitals. The leadership experience gained through work with HSPs and CCAC to co-design health system change may serve as a guide for clinicians & leaders.

Methods & Analysis: As a trigger to mandate provincial change, the Rehabilitative Care Alliance developed the Definitions Framework for Bedded Levels of Rehabilitative Care, to help establish consistency in the organization of Rehabilitative Care resources. This poster presentation will share our Change Leadership success story of co-designing a system-wide quality initiative, through partnership and collaboration. Experience in use of a "people focus", along with strategies in the areas of governance/leadership, stakeholder engagement, communications, work flow analysis/integration, education, and monitoring/evaluation will be shared.

Study Sample or Initiative Scope: Implementation of this quality initiative has impacted patients/families, clinicians, physicians, hospital management, and health system leaders.

Findings: In 120 days, across the SW LHIN, all HSPs and CCAC were using the new Rehabilitative Care Bedded Definition language, referral teams were identifying patient needs in a more standardized format, and eligibility was determined using new guidelines, that were consistent with new bed types. 100% of eligible Rehabilitation and Complex Continuing Care beds were determined to be "In" project scope, with plans identified to address gaps in alignment.

Discussion: An inclusive Change Leadership approach was key to our success in moving towards achieving the right rehabilitative care, in the right hospital bed, at the right time for patients. Across the

SW LHIN, patients and referral teams have a clearer understanding of what to expect on the Rehabilitative Care journey, and HSPs have taken action to standardize resources.

Conclusions: The learning gained through this change project experience is important to share. A shared purpose to improve the quality of Rehabilitative care for our patients and the importance of creating a community of leaders across the SW LHIN's geographical area, are critical to the success of this system-level initiative.

Cross Population

Poster Number: 47

Title: Whose meeting is this? Co-creating a process for conducting person-centred family team meetings in an inpatient rehabilitation program

Authors (Primary First): Siobhan Donaghy; Tanya Delanghe; Gina Lam; Mila Bishev; Jennifer Shaffer; Inna Pantaleev

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

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

ABSTRACT

Purpose: To utilize the principles of collaborative change leadership, experience-based design and patient engagement in redesigning a structure for planning, conducting and documenting family team meetings with rehabilitation patients.

Relevance: Patients & families are important members of their care teams, yet communication with and between clinical team members can often appear fragmented. An opportunity arose to revise the process and documentation tool for family team meetings, fostering an interprofessional, collaborative and person-centred approach.

Methods & Analysis: A program-wide forum was launched to review current state and explore opportunities for restructuring family team meetings, using an appreciative inquiry approach. An interprofessional working group of clinicians, leaders and patient advisors was formed. Interview questions were then generated to gather input about potential opportunities from a broad group of stakeholders, including team members, patients & families. Interview themes were gathered, analyzed and used to inform an iterative PDSA cycle, in drafting and revising new documentation tools and processes with one pilot unit.

Study Sample or Initiative Scope: This initiative focused on inpatient adult rehabilitation patients and their families.

Findings: A revised process and clinical documentation tool was created that is patient & family driven rather than provider driven, grounded in the principles of health literacy, interprofessional collaboration and person-centred. Opportunities now exist to actively engage patients and families in identifying the need for a family team meeting, deciding who to invite, what to discuss and how to record the summary of the conversation.

Discussion: This initiative demonstrated the value of a facilitated, collaborative & multi-faceted approach to foster positive change and quality improvement in rehabilitation. It demonstrated that there is tremendous value in engaging patients, families, clinical team members and other stakeholders from the outset, as members of the quality improvement team.

Conclusions: The quality and efficiency of our family team meeting process has been enhanced by actively engaging patients and families in this quality improvement process. The revised process and tools now provide a structure which fosters interprofessional collaboration and views patients as active members of their care team.

Cross Population

Poster Number: 48

Title: Supporting Patients Requiring Peripheral Intravenous Therapy in a Rehabilitation Setting

Authors (Primary First): Elizabeth Williamson; Susan Schneider

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

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

ABSTRACT

Purpose: An intravenous (IV) team was created to support patients who require intermittent peripheral IV therapy. As a result of this initiative, patients can transition earlier from acute care or continue their rehabilitation with less interruption.

Relevance: Prior to this initiative, patients requiring short-term IV therapy could not be managed effectively in a person-centered manner. Admission criteria only supported IV therapy via a peripherally inserted central catheter device.

Methods & Analysis: While all Registered Nurses (RNs) on the in-patient units had competence in maintenance of IV therapy, RNs lacked competence in peripheral IV insertion. 11 RNs were selected based on their schedule and previous experience with IV insertion or willingness to learn peripheral IV insertion. Peripheral IV insertion was learned through a multi-modal approach of an on-line learning module, successful completion of a quiz, insertion practice with a manakin, and supervised practice with patients in a day surgery department.

Study Sample or Initiative Scope: This initiative focused on in-patient rehabilitation candidates and current in-patients requiring short-term intermittent IV antibiotic therapy.

Findings: This initiative provided an opportunity for the RNs to learn how to insert peripheral IVs. By expanding the admission criteria, patients can begin their rehabilitation in a timely manner and IV therapy can be initiated on current in-patients. Improved patient outcomes and decreased complications can be achieved with nurses receiving special training in infusion therapy and supportive organization structures and processes (RNAO, 2004).

Discussion: The aim of this initiative was to improve access to in-patient rehabilitation for patients requiring short-term IV antibiotic therapy. Through the creation of an IV team, we have now expanded our admission criteria to include patients requiring short-term IV antibiotic therapy. This will allow patients to begin their rehabilitation sooner with less interruption.

Conclusions: An IV team, consisting of 11 RNs, was created for the purposed of being able to expand our in-patient admission criteria to support patients who require short-term IV antibiotic therapy. Through this initiative, our hope is that patients will be able to access in-patient rehabilitation in a timely manner.

Cross Population

Poster Number: 49

Title: Ensuring the Ball Doesn't Drop on New Year's - Interprofessional Care over the Holidays

Authors (Primary First): Marisa Cicero; Lauren Massey; Katey Knott; Kim Bradley

Affiliation of Primary Author: St. Michael's Hospital

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

ABSTRACT

Purpose: To expand health disciplines staffing over prolonged holiday periods to support discharge, flow, and patient experience.

Relevance: Current staffing on weekends and holidays does not include OT, OTA, PTA, RD, SLP, or SW. Leadership and Quality presented the opportunity to trial a model that included these disciplines over the 3 and 4 day weekends. Evaluation of this initiative would offer insight into the impact of HD interventions on patient care

Methods & Analysis: Additional health disciplines staff that worked during the holidays were asked to capture daily data that described their caseload in terms of number of patients referred and seen, priority level, unit, time spent, and whether the patient was for discharge. Discipline specific data was also captured, for example, whether diet textures were upgraded. Staff were surveyed afterwards to understand their experiences and perceptions, and were also invited to an in-person debrief. Data was analyzed both by discipline and corporately, to understand trends and utilization. A cost-analysis is currently underway.

Study Sample or Initiative Scope: To staff one person each from OT, OTA, PTA, RD, SLP, and SW to provide coverage to inpatient units on Dec 24-27th and Dec 31st – Jan 2nd.

Findings: Six professions saw 183 patients; 312 visits total, and 96% of referrals were seen.
Existing prioritization matrices largely adequate and skill of the clinician applying these to novel patient populations was developed. In the clinician's judgement, discharge would have been delayed 19% of the time had they not intervened. Reported patient experience was very positive, having received full spectrum of care throughout admission

Discussion: Health Discipline care on holidays can be adapted to function across a facility with clear priorities to facilitate patient discharge home as well as to better optimize the patient's subjective

experience of care. Interprofessional and collaborative practice was accentuated in the circumstances of a single corporate health disciplines care team.

Conclusions: The need for Health Disciplines patient care in an acute care hospital does not stop when the health disciplines are not present. Patient flow, discharge and the patient experience are positively impacted by ongoing HD care, and staffing models should reflect this.

Cross Population

Poster Number: 50

Title: Evaluation of Nurse Shift Report at the Bedside (NSRB) in a Rehab and CCC Setting: Lessons Learned

Authors (Primary First): Leslie Soever; Nancy Boaro; Maria Chiera-Lyle; Leanna Graham; ; ; ; ; ; ; ;

Affiliation of Primary Author: University Health Network; University of Toronto

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

ABSTRACT

Purpose: Nurse Shift Report at the Bedside is a form of transfer of accountability (TOA). Incoming/outgoing nurses exchange important patient information, engage patients/families, and undertake a two-person mandatory bedside patient safety check.

Relevance: Including patients/family members/substitute decision makers in TOA is a major change in clinical practice and maximizes patient safety. Evaluation was important to determine successes, challenges, and opportunities for improvement and sustainability, in a rehab/ccc environment where there is a paucity of literature.

Methods & Analysis: A mixed methods approach was utilized including:
1. Focus groups with nurses to ascertain nurses' perspectives, prior to implementation;
2. NSRB Knowledge, Attitudes, Values and Beliefs Questionnaire completed by nurses prior to delivery of education and implementation and 6 months – 1 year post implementation;
3. NSRB Self-Efficacy Questionnaire completed by nurses prior to and following education;
4. Audits by trained leaders to observe NSRB;
5. Public and Patient Engagement Evaluation Tool to ascertain feedback from Patient Partners on our NSRB Steering committee; and
6. Patient and Family Questionnaire

Study Sample or Initiative Scope: RNs/ RPNs across rehab and ccc environments (n=600). Patients with complex MSK, Brain, Spinal Cord and Geriatrics conditions in a 400+ bed site.

Findings: Focus group themes included 'Guarded Enthusiasm'; 'Fears; and 'Buried Operational Issues'. Majority of Knowledge, Attitudes, Values, Beliefs Questionnaire respondents only somewhat agreed to statement "There are ways to avoid breaching patient confidentiality with NSRB". Patient/Family Questionnaire revealed 92% (86/93 respondents) either agreed/strongly agreed with statement "I like nurses sharing information about my care at my bedside."

Discussion: Results allowed us to direct communication and education, while promoting patient engagement, patient experience, a positive safety culture among staff and patients, and learning, including from patients/ families. Sustainability efforts are continuing to be informed by our evaluation.

Conclusions: NSRB promotes patient and family engagement, experience and safety. Patients value having information about their care shared at their bedside. This method of TOA enables nursing staff to effectively transfer key information at nursing shift change.

Cross Population

Poster Number: 51

Title: Do Acute Care PM&R Consults Influence Outcomes in Trauma Patients?

Authors (Primary First): Lawrence Robinson

Affiliation of Primary Author: University of Toronto: Sunnybrook Health Sciences Centre; St. John's Rehab

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

ABSTRACT

Purpose: The purpose of the study was to evaluate the impact of acute care physical medicine and rehabilitation (PM&R) consults on acute care and rehabilitation outcomes in trauma patients. This presentation reflects an interim analysis of results.

Relevance: If acute care PM&R consults can be shown to improve outcomes or efficiency, it may allow for enhanced continuity of care across the continuum.

Methods & Analysis: We studied the impact of acute care PM&R consults by comparing outcomes before and after the trauma consult service was started. Primary outcome measure was acute care length of stay (LOS). Secondary outcomes included:, 30 day readmission rates; frequency of potentially preventable complications; Functional Independence Measures (FIM) at discharge from acute care, and from rehabilitation; and ultimate discharge location and time to home or other appropriate setting. Data was collected via retrospective chart review and National Rehabilitation Reporting System (NRS). T-tests and Chi square analyses were used.

Study Sample or Initiative Scope: Subjects included 223 trauma patients admitted to Sunnybrook Health Sciences Centre with injury severity score of > 15 who went to any rehab centre.

Findings: Patients were on average 46 y/o and had trauma due to MVC or falls. Psychiatric disorders (15%) and substance abuse (9%) were common. Those who had an acute PM&R consult had a shorter acute care LOS, but longer LOS in rehabilitation. They had lower FIM on rehab admission and smaller change during rehab. Preventable complications were marginally lower in the consult group. Further analyses will adjust outcomes for initial injury severity.

Discussion: These preliminary results suggest that acute care PM&R consults may enhance the ability to move patients to inpatient rehabilitation sooner and may be a valuable component in the continuum of care. Further results will be required to draw definitive conclusions however. We do not yet know if these results can be extended to other patient populations.

Conclusions: Acute care hospitals may want to consider implementing acute care PM&R consults for trauma patients, and possibly other populations.

STUDENT ABSTRACTS

Brain Injury / Neuro / Stroke

Poster Number: 13

Title: Use of Canadian Occupational Performance Measure (COPM) as a patient-reported outcome measure across the stroke care continuum.

Authors (Primary First): Andrea Stokes; Siobhan Donaghy; Beth Linkewich; Ma Maria

Affiliation of Primary Author: University of Toronto; Sunnybrook Health Sciences Centre

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

ABSTRACT

Purpose: This study explores patient/family and clinician experiences with using the COPM as part of an integrated, multi-organizational model of stroke care, and how these perspectives shape the delivery of client-centered care throughout the continuum.

Relevance: The COPM is a patient-reported outcome measure which helps to guide the identification of issues of importance to a patient. Recognizing the need for a patient reported outcome measure along the stroke care continuum, the COPM was integrated into practice as part of an integrated, multi-organizational model of care.

Methods & Analysis: Semi-structured interviews were conducted with clinicians and patients/families at partner facilities along the stroke care continuum from acute care through to inpatient & outpatient rehabilitation. Thematic analysis was used to identify key themes from both the clinician and patient/family groups. Themes identified then informed the ongoing iterative development and evaluation of this integrated model of stroke care.

Study Sample or Initiative Scope: Patients/families and clinicians working in partnership along the stroke continuum of care from acute care through to rehabilitation.

Findings: Themes from semi-structured interviews informed the iterative implementation and developmental evaluation of the use of the COPM in clinical practice, as part of this integrated, multi-organizational model of care.

Discussion: This study provides insights on the perspectives of patients/families and clinicians regarding COPM use in supporting client-centered assessment, goal setting, care planning and transitions along the stroke care continuum. The results are being used to inform the iterative development and evaluation of this model of care.

Conclusions: This evaluation will contribute new evidence and knowledge about the use of the COPM in supporting client-centered care along the continuum of stroke care, and contribute to a growing body of research about the COPM in clinical practice.

Brain Injury / Neuro / Stroke

Poster Number: 17

Title: Cognitive Behavioural Therapy (CBT) for Anger and Aggression among individuals with Moderate to Severe Acquired Brain Injury: A Systematic Review and Meta-Analysis

Authors (Primary First): Jerome Iruthayarajah; Robert Teasell; Amanda McIntyre; Shannon Janzen; Fatima Alibrahim; Swati Mehta

Affiliation of Primary Author: Parkwood Institute Research

Abstract Category: Systematic Literature Review

ABSTRACT

Purpose: To evaluate the effectiveness of CBT anger management programs in addressing aggression developed after an acquired brain injury (ABI).

Relevance: Aggression following an ABI poses a huge safety concern to caregivers and patients. Aggression hampers the rehabilitation process by decreasing patient motivation and intervention adherence. CBT has been shown to be a promising, non-pharmaceutical approach to dealing with these issues in a variety of populations.

Methods & Analysis: A comprehensive literature search was conducted using: PubMed, Scopus, Embase, PsycINFO, and CINAHL. The inclusion criteria were: (1) ≥50% of the sample had a moderate to severe ABI; (2) Adult patients >19 years, and (3) A cognitive behavioural therapy or psycho-education intervention for the treatment of anger or aggression. Levels of evidence were assigned using a modified Sackett scale. Standard mean difference (SMD) ± standard error were calculated for the subscales of the State Trait Anger Expression Inventory (STAXI) and STAXI-2. Results were pooled using a random effects model.

Study Sample or Initiative Scope: Seven studies met inclusion for the systematic review. Meta-analyses were conducted on four studies.

Findings: Data from one randomized controlled trial (RCT) (level 1b), RCT crossover (level 1b), and five pre-post studies (level 4) showed an significant improvement on a variety of aggression outcomes with CBT use ($p<0.05$). The meta-analyses revealed significant pre-post effects on the trait anger, anger expression-out, anger control subscales of the STAXI and STAXI-2 ($p<0.05$). But not on the anger expression-in subscale ($p=0.139$).

Discussion: Overall findings suggest that the CBT anger management program are effective in reducing aggression post ABI. However, a pooled effect of these interventions was not found on the trait anger

subscale of the STAXI and STAXI-2, suggesting these interventions improve only certain facets of aggression.

Conclusions: This study encourages the use of CBT anger management programs for use in an ABI population. However, evidence from additional RCTs or comparator group studies are needed, before any conclusions about the intervention's true efficacy can be drawn.

Brain Injury / Neuro / Stroke

Poster Number: 14

Title: Barriers to community reintegration for Stroke Survivors

Authors (Primary First): Ludmilla Ferreira

Affiliation of Primary Author: West Park Healthcare Centre

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

ABSTRACT

Purpose: This quality improvement project aimed to study how discharge planning from a rehabilitation centre in Toronto could be improved for stroke survivors and to examine the barriers to community reintegration.

Relevance: Many stroke survivors continue to experience physical, psychological, cognitive, and social consequences after their stroke rehabilitation. Given the shortened length of stay and limited outpatient sessions, it is important to understand the recovery process of stroke survivors after conventional therapy services end.

Methods & Analysis: A cross-sectional design was used with the aim of understanding how stroke survivors in the community who have been discharged from the outpatient clinic at WPHC are being reintegrated into their communities. Barriers to community reintegration for those who are not reporting successful integration was further explored.

Study Sample or Initiative Scope: 40 adult participants with a diagnosis of stroke who received therapy from one or more disciplines in the outpatient clinic in 2015.

Findings: Answers from the participants showed good community reintegration with an average of 74% community reintegration using the RNLI. The most common barriers identified for not being able to attend programs were: lack of support/support not available, lack of transportation, and physical mobility limitations. Patients with aphasia and their caregivers require more support in the community.

Discussion: The use of outcome measures for community reintegration and depression is suggested to allow for better discharge planning and increased community reintegration. Increased access to social work, vocational, and recreational services may offer more personalized services for those patients at risk of isolation.

Conclusions: The most common barriers identified for not being able to attend programs were communication difficulties (e.g. aphasia), lack of support, transportation, and physical mobility

impairments. Now that these barriers are identified, it will be feasible to develop a more effective process to mitigate them.

Cardiac / Pulmonary

Poster Number: 15

Title: Validity of the 14-item Center for Epidemiological Studies Depression scale (CES-D) and its relationship with cardiopulmonary fitness in participants with type 2 diabetes entering an exercise-based rehabilitation program

Authors (Primary First): Jasmine Carter; Walter Swardfager; Paul Oh; Jaan Reitav; Alex Kiss; Baiju Shah; Pearl Yang; Daniel Merino; Nathan Herrmann; Hugo Cogo-Moreira

Affiliation of Primary Author: Cardiac Rehabilitation Program, University Health Network Toronto Rehabilitation Institute; Department of Pharmacology and Toxicology, University of Toronto; Hurvitz Brain Sciences Centre, Sunnybrook Research Institute

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

ABSTRACT

Purpose: A 14-item version of the widely used 20-item CES-D self-report instrument was recently proposed (Carleton et al., 2013), necessitating validation in type 2 diabetes mellitus (T2DM) to facilitate accurate risk detection for adverse clinical outcomes.

Relevance: Depression is highly prevalent in T2DM and it has sometimes been associated with poorer outcomes, including less physical activity and non-adherence to exercise rehabilitation. Its independent effect on cardiopulmonary fitness may account for some adverse clinical outcomes.

Methods & Analysis: The CES-D was administered to consecutive participants entering Toronto Rehab's Diabetes, Exercise and Healthy Lifestyle Program. Its construct validity was assessed using confirmatory factor analysis. Subscale viability, differential item functioning were tested in bifactor models. Correlations between depressive symptoms and cardiopulmonary fitness (VO2Peak in a standardized exercise stress test) were tested using a linear regression model adjusting for demographics, anthropometrics, diabetes characteristics and concomitant medications used.

Study Sample or Initiative Scope: The study included 305 adults with T2DM (age 56.9±11.1, 44.9% male, duration of diabetes 7.8±7.9 years, HbA1c 7.6±1.4%) entering rehabilitation.

Findings: The construct validity of Carleton's 14-item 3-factor solution was confirmed, and the 14 CES-D items can be summed to arrive at a total score (ωH=.869) but the subscale scores were not reliable (ωS<.7) . The general factor was associated with age and BMI but not glycemic control. In a model adjusting for relevant confounders (adjusted R2=.247), CES-D total score was an independent predictor of VO2Peak (beta=-.133, p=.018).

Discussion: The 14-item CES-D accurately captures depressive symptoms in people with T2DM and it can be used in research; the items can be summed to arrive at a total score but the subscales are not reliable. Optimal cut-offs to screen for clinical depression and for risks of adverse outcomes in rehabilitation should be explored, and additional psychometrics should be considered.

Conclusions: The 14-item CES-D retained construct validity in these relatively healthy adults with T2DM entering a rehabilitation program. Depressive symptoms contribute to poorer fitness in people with T2DM, which may help to explain poorer diabetes outcomes when they have been associated with depression.

Senior-Focused Care

Poster Number: 16

Title: Validating the Clinical Frailty Scale and exploring pre-frailty in community-dwelling older adults with pre-clinical disability

Authors (Primary First): Gabriela Rozanski; Ada Tang; Christina Nowak; Kelsey Jack; Julie Gourlay

Affiliation of Primary Author: McMaster University; Toronto Rehabilitation Institute

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

ABSTRACT

Purpose: Can older adults with pre-clinical disability also be pre-frail according to an established measure? If so, what is the prevalence of pre-frailty? Is the Clinical Frailty Scale (CFS) a valid tool for identifying individuals classified as pre-frail?

Relevance: The stages preceding disability and frailty are clinically relevant due to the potential for reversibility. It is important to better understand how pre-clinical disability and pre-frailty can be assessed in order to identify and treat physically vulnerable individuals who are at risk of further functional decline.

Methods & Analysis: In this cross-sectional study, eligible participants with pre-clinical disability, as per the Pre-clinical Disability and Mobility Scale (PDMS), were evaluated for frailty status (robust, pre-frail, frail) using the CFS and the established Fried's Frailty Phenotype (FFP). Physical performance measures (including grip strength and gait speed) were administered and the relationship with CFS and FFP scores was analyzed by Spearman correlation. A Mann-Whitney U test was used to determine known-groups validity of CFS by comparing the scores of robust and pre-frail individuals identified by FFP.

Study Sample or Initiative Scope: Volunteer sample of thirty-one community-dwelling older adults (age 71.9 ± 8.0 years, 52% male) with pre-clinical disability, identified by the PDMS.

Findings: Twenty-three (74%) participants were classified as pre-frail according to FFP. There was no difference in CFS scores between individuals identified as robust and pre-frail by FFP (median 2.5 and 3.5, respectively; p=0.91) and the CFS did not correlate with any of the physical performance measures (|ρ|=0.02-0.30). FFP scores were associated with gait speed (ρ=-0.51, p=0.007).

Discussion: Our findings suggest that pre-clinical disability and pre-frailty are not mutually exclusive constructs. CFS scores did not discriminate between robust and pre-frail participants; rather, based on its correlation with FFP, gait speed may be a useful screening tool for frailty. Valid measures that are feasible in clinical practice are necessary to promote healthy aging.

Conclusions: The use of the CFS to identify individuals who are pre-frail is not supported by the current study. Further investigation is warranted to elucidate the relationship between pre-clinical disability and pre-frailty as well as to explore clinically practicable methods of detecting these vulnerable states.