

#QS18 – Successful Quality Improvement Projects

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(1 + 1 = MANY) WALKING THE WALK AND TALKING THE TALK WITH OUR PATIENT & FAMILY ADVISOR PARTNERS

Context and RelevanceThe Patient First Strategy clearly identifies AHS' intention to improve healthcare by actively including the voice of patients and families. CancerControl Alberta (CCA) embraces Patient and Family Centered Care principles (talk the talk) and strategized to find a sustainable way to accomplish this (walk the walk). Two cancer centers in South Zone; JACC and MEYCC, have embarked on a quality improvement project to address this identified gap. Recent Accreditation propelled this idea into action. A Patient Experience Committee (PxC) has been organized at both sites, with members of the committee representing patients, family members and staff. The purpose of the PxC is to provide opportunities to actively partner with patient and family advisors to improve patient experience and safety. This standing committee will provide valuable perspective through the lens of the patient experience.OutcomesTo date each site has held a recruitment event, Advisor orientation, and an initial meeting where the Terms of Reference were ratified by the members. Projected outcomes of these committees include:- Increased communication between patients, families, and caregivers with site staff and leadership, - Quality Improvement in priority areas as identified by patient reported outcomes and input from advisors, and staff, and- Advancing the Patient and Family Centered Care culture within both sites.Lessons LearnedRecruitment improved at the two sites when the 'Ask' was specific to the local facility, rather than a broad recruitment for the provincial advisory network. Potential challenges include:- Staff members may feel over-worked and disengage from meeting,- Staff anxiety that they may not be able to meet the needs raised by advisors,- Advisor members may want more ability to influence decisions that are the responsibility of leadership. As the committees are still in their infancy, evaluation and sustainability are factors being addressed from the outset. Growth of the committees will be dealt with on a yearly basis. There are no budget constraints with this project. Evaluation will rely heavily on qualitative results; focus groups and feedback questionnaires. Spread: By December 2018 Red Deer and Grande Prairie Cancer Centres will also have active PxCs.



A QUALITY IMPROVEMENT PROJECT INCREASING PATIENT VARIETY AT ROCKYVIEW GENERAL HOSPITAL BY PROVIDING ADDITIONAL VEGETARIAN THIRD CHOICE ON SELECTIVE MENUS AT SUPPER

A request from Patient Food Services Manager at Rockyview General Hospital in the Calgary zone to provide a third supper meal choice on existing selective menus was received. The request specified that vegetarian compliant entrees be available for non-vegan or other specialized diets who may already see these options or receive them as default depending on their diet orders. A pilot project revising a system template from March 7 â€" May 7 2018 was initiated. The pilot was limited to patients on a regular texture and non-vegan or specialty diet who may normally be provided the vegetarian options at the Rockview General Hospital (RGH) and who would receive a selective menu.DMAIC methodology is used to measure the number of vegetarian choices ordered, which menu days most impacted and which meat and alternate protein options were not selected in order to validate the need. Partners and stakeholders included the Executive Director of Patient Foodservices, the Site Administrator, the Nutrition and Food Services Manager, NFS IT Systems, along with Patient Food Services Supervisors and clerks.Data collection captures the number of patients in the pilot category who choose vegetarian options when offered the existing default and selective option. Their menus will be reviewed and results analyzed. Although the pilot is still underway, there has been a noted increase in selection of the entrees. Additional learnings are still being analyzed for trends comparing which meat or alternate protein choices were not selected. Waste audits were conducted over a 2 day period in early April to measure the selected plant based options consumption rates. This project has a direct impact on patients and increased ability to make choices at mealtime, overall satisfaction results in the areas of taste, flavor and variety as well as providing valuable data for potential menu management for acute patients throughout Alberta Health Services. The project does present potential concerns for replication at other sites and zones. The results will be valuable in making recommendations.





A QUALITY IMPROVEMENT PROJECT TO IMPROVE PATIENT SAFETY "WEARING A PATIENT IDENTIFICATION ARMBAND"

Context and Relevance: Patient Identification plays a key role in a patient's journey through the healthcare system. Alberta Health Services non-conformance event reporting in the Reporting, Learning and Sharing (RLS) system, indicated Calgary Zone (CZ) data for patients not wearing an Identification (ID) Band at the time of blood collection was significantly higher than the rest of the province. CZ practice allowed blood collection of a patient not wearing an ID band as long as the healthcare provider signed a waiver and provided a verbal identification of the patient. AHS and Calgary Lab Services (CLS) agreed patients needed to be banded prior to blood collection unless there was a clinical exception.

Methods: Data from the RLS system was used to compare CZ to the rest of the province, as well as to determine the success of the change in laboratory practice within CZ. An environmental scan was performed to determine the difference in patient identification procedures throughout the province. A survey was conducted with frontline laboratory staff to capture the frequency and time involved when staff encountered patients not wearing ID Bands prior to blood collection. Lastly, CLS and AHS Patient Safety partnered to implement a pilot introducing the change in laboratory practice.

Outcomes: Initial data was shared with acute care site administrators to engage their support for changing the practice of collecting blood on Emergency and inpatients who were not wearing an ID band. The support of site leadership was critical in the outcome of the 3 month pilot conducted at one acute care site. This pilot allowed us to test our change management tools, communications materials (patient and staff), and supporting documents and staff (nursing and laboratory) education. The pilot was successful resulting in a significant decrease in reported non-conformances. Stakeholder feedback was used to adjust the implementation strategy for the remaining acute care sites. All CZ hospitals have implemented this new safer practice.

Lessons Learned: The site leadership support and staff engagement are vital for the success of the change in practice. Baseline data and post implementation data are key measures of success.





A QUALITY IMPROVEMENT PROJECT TO IMPROVE THE DECISION MAKING PROCESS OF HIGH-RISK STERILE COMPOUNDED PREPARATIONS

Opportunity: High-risk sterile compounding involves the preparation of medications for individual patients with specialized medical needs. Specialized knowledge and skills are required to ensure there is no microbial contamination and the purity and potency of prepared medications are exact. The need to comply with new regulatory standards by July 1, 2020 offered opportunities to improve the quality of high-risk compounds provided to patients and translate new knowledge to front-line clinicians.

Methods: Pharmacy professionals across the province have struggled to understand the changes required to comply with the standards. Since the solution to the problem was not known, and knowledge in this area was not wide-spread, an improvement team consisting of pharmacy managers, pharmacists, and pharmacy technicians, was formed. The team provided oversight of both site and program-level efforts.Data collected identified where there were gaps between compliance standards and current practices. Improvements were prioritized based on the potential risk level to patients. Rapid Sequence Improvement was put in place and the work was divided into two phases aimed at achieving compliance with standards, and completing reviews of each high-risk preparation. An education component targeted for front-line clinicians was employed.

Outcomes: Using Plan-Do-Study-Act (PDSA) cycles' 80% compliance was achieved in Phase 1. Unnecessary risks in preparation processes were reduced by limiting compounds prepared to those where no other product could meet the therapeutic needs of the patient, reducing batch sizes, implementing filter integrity testing and applying appropriate beyond-use-dating. Phase 2 is nearing completion, and involves the implementation of principles to help clinicians make informed decisions based on standards and best practice.

Lessons Learned: Complex changes require careful planning. Knowledge translation to front-line clinicians was necessary to facilitate and sustain changes. Provincial consistency is achieved with a strong centralized plan that simultaneously provides direction and empowers change to be undertaken at a local level.





A QUALITY IMPROVEMENT SUCCESS STORY WITH COLORECTAL SCREENING COMPLETION RATES IN PRIMARY CARE

Context & Relevance: This project developed from a quarterly discussion with the physicians and clinic team at Evanston Medical Clinic. In reviewing colorectal screening rates, the team decided that they would like to make this an area to improve upon. Patients who were provided with a requisition to complete a Fecal Immunochemical Test (FIT), were making a first trip to complete recommended bloodwork and to pick up the FIT kit from the lab, but they are not returning their FIT sample, hence not completing the colorectal screening process. The hypothesis was if patients were provided with FIT kits at the clinic with their requisition, as well as provided with a demo/education on completion, then FIT completion rates would increase. Barriers for the patient identified: 1) convenience/time and 2) knowledge

Method: As FIT kits are currently provided by Calgary Lab Services (CLS), it was imperative that we partnered with them in this project. The QI project was explained to CLS, and their team agreed to deliver 50 FIT kits per month to Evanston Clinic for a time period of three months (January-March 2018) to help support the hypothesis. A log was kept to keep track of FIT kits and requisitions provided, as well as when the completed lab results were received from CLS. In addition to providing the FIT kits to the patients at the clinic, the clinic staff also provided the patient education on how to complete the test for best possible accuracy/results.

Outcomes: Results were astounding. For four physicians at the clinic, pre-PDSA saw a FIT test completion rate of 53% and post change was 92%.

Lessons Learned: It was concluded that by providing patients with the FIT kits at their physician clinic, as well as providing education for completing the sample accurately, significantly contributes to better rates of completion for colorectal screening. We will continue with this change for the next quarter and review the data further. If the improved screening rates remains consistent, other clinics within Mosaic PCN will be identified to try this QI change as well.





A TEAM APPROACH TO QUALITY IMPROVEMENT FOR AN URBAN IN-HOME STROKE REHABILITATION PROGRAM

Context: Home-based stroke rehabilitation is ideal for the recovery of mild to moderate stroke patients. Balancing travel and high quality, timely therapeutic visits can be challenging. Through the process of Stroke Distinction, access and timely response to referrals were identified as service gaps in our in-home Stroke Early Supported Discharge (SESD) program. Through a quality improvement initiative, the SESD team and Stroke Program, Edmonton Zone are evaluating the daily function of the team to increase efficiency using existing resources and to determine the feasibility of expansion.

Methods:Using the Alberta Quality Matrix for Health, the SESD team identified goals under the six quality dimensions (acceptability, accessibility, appropriateness, effectiveness, efficiency and safety) that would serve as outcome measures for the services provided by the program. Team meetings were held to formulate action plans to address the identified goals. Score carding methodology was then used to establish baseline performance and monitor the effect of the action plan on the respective goal ensuring strategies with a negative impact were promptly revised.

Outcomes: Monthly meetings with the SESD team have provided a better understanding of the workflow resulting in improved selection of goals and data collection, analysis, and reporting. Percentage of clients achieving target rehabilitation intensity has almost quintupled (from 10% to 48%). Access within 48 hours of discharge for acute care clients has increased by 65%. A statistically significant change in client performance and satisfaction went from 28% to 88 and 84% respectively.

Lessons learned:Knowing what to measure and how to measure it was key to the success we achieved. Having gone through the process once, we are now better able to select our next set of goals to help make a stronger case for expanding our SESD team. Using quality improvement methodology provided a structured and visual way to plan and assess practice change. Initial staff skepticism to the use of this methodology was overcome through persistent exposure to data and the gains made. Now staff are more likely to try new ideas and evaluate their impact. Collected data can now be used to make a stronger case for team expansion.





A VIRTUAL QUALITY IMPROVEMENT COLLABORATIVE IMPROVES CHILDREN'S PAIN OUTCOMES DURING EMERGENCY DEPARTMENT VISITS ACROSS THE PROVINCE

After creating the Commitment to Comfort QI project to improve treatment of children's pain in our own emergency department (ED), colleagues suggested that our project should be spread provincially. But how does a small frontline team of 2 doctors and 2 nurses reach a whole province? There's no standard approach, yet our team felt that our project had the potential for improving children's pain outcomes beyond our site. Our idea was to develop a virtual QI collaborative (QIC). We first developed our QIC locally by inviting 3 EDs in Calgary to form project teams and develop their own aims and tests of change. We recruited a project manager and a data analyst and made a website. We met monthly to teach basic QI methods and best pediatric pain practices. Participating sites received a comfort kit with educational materials, practice resources, and distraction toys. As we had a small budget, material costs were under \$100/site. After experiencing success, we were ready to create a virtual QIC for the province. We received endorsement from the Emergency SCN and invited all Alberta ED's to participate. 40 sites accepted. To measure improvement, we developed an electronic data collection tool so sites could do a small number of monthly audits. Upon completing their first audit, each site received a comfort kit. Audit data is downloaded to a pediatric pain dashboard. Monthly interactive webinars are delivered. Teams have collected baseline data and are performing tests of change. Early results are promising. For example, prior to the virtual QIC only 13% of kids received topical anesthetic before a needle poke. That number is now over 30%. An important result of the project is that teams from EDs large and small from all parts of Alberta are learning to use QI methods to create change. We learned that carrying out a big project with a small team is a labour of love, but the rewards are immense. Substantial time needs to be allotted for communication to support sites with their questions and challenges and build relationships. Success comes from helping teams to do something that they believe in.





AIW PROCESS IMPROVEMENT PROJECT AT THE UAH OUTPATIENT PSYCHIATRY DAY TREATMENT PROGRAM

This is a presentation of the progress we have so far. The UAH-Psychiatry Day Treatment program has by April 6-18, 70 patients waiting to be admitted to the 18 weeks psychodynamic therapy with an average waiting of 9 months. This long waiting time might cause patients symptoms to worsen and staff dissatisfaction as therapy cannot be provided as needed. This AIW improvement project started on Dec-17 with the goal of alleviate this situation.





ALBERTA CHILDREN'S HOSPITAL OUTPATIENT FAMILY FEEDBACK SURVEY RESULTS

The Alberta Children's Hospital (ACH) Outpatient Principles in Practice represent the standard of care provided in our Outpatient clinics. In addition, we are guided by our definition of Patient and Family Centered Care(PFCC): "At ACH children, youth, families, staff and physicians partner together to provide excellent care. We treat each other with respect, listen to one other, share ideas and information, ask and answer questions, create a safe environment and make decisions together. Together We're Better." This all sounds good in theory, but is it true? To answer this question, a survey was conducted from May through December 2017, gathering family feedback on aspects of our outpatient services.

A total of 8640/14301 responses were returned, representing a 60% response rate. Overall rating for the clinics resulted in an average of 9.3/10.

The survey addressed patient and family experience before, during and after an appointment. 37% of families reported hearing back from a clinic within one week of referral, 33% within one month, and 30% greater than one month. When families were asked if they received an appointment time that fit into their schedule, 97% of families reported 'yes definitely' or 'yes somewhat'. 68% of families reported receiving a reminder prior to their appointment. 62% of families reported that their appointment started on time. For those that had an appointment that did not start on time, 69% were provided with a reason for the delay.

The survey also asked two open ended questions. Responses were themed based on the four principles of family centered care. Families identified most often that they value: 1. Dignity and Respect (n=1531) 2. Generally appreciative comments (n=1169) 3. Information Sharing (n=939). Most common improvement suggestions from families were: 1. Wait during appointment (n=313) 2. Clinic specific feedback (n=235) 3. Scheduling (n=136).

A site report and individual clinic reports will be provided to each frontline leader. Leaders will be encouraged to share the feedback with their teams to strategically target improvement based on the feedback from families in their clinics. The site report will inform site wide actions to build on and sustain our commitment to PFCC.





ALBERTA RADIOSURGERY CENTRE: A STORY OF CLINICAL WORKFORCE OPTIMIZATION

Context and Relevance: Legacy on nursing practice established the need for analysis and improvement in the Alberta Radiosurgery Centre (ARC) at the Tom Baker Cancer Centre (TBCC). A transient paper based system required nursing to perform clerical activity. Change to improved electronic and streamlined systems remained difficult from a cultural perspective and there are individual paper tools which make the work non-standard and difficult to transfer or teach to other nurses. Ultimately, the goal is to simplify process and improve flow, remove paper tools, ensure scope of work, and remove waste.

Methods: Analysis of the nurse's activity over 2 days created a breakdown of activity and shaped the change needed to meet the goal. Understanding current practice in other clinics from both local and provincial sites and utilization of tools or resources at TBCC for clerical activity was the first step of this improvement. Identification and removal of barriers generated trust of a new system. The nurse and clerk assisted in this transformation which included a future state of 3 clerical standard workflows to standardize and redistribute clerical activity from nursing. Encouragement, and support from management created a favorable environment for change.

Outcomes: Ultimately, 70% of the nurse's current activity was within scope of a clerk IV. However, only 17% of the nurse's time was direct interaction with patients. An appointment averaged 82 minutes in length and only 8 minutes of nursing time was with the patient. The target for nursing activity is 50% reduction in clerical activity. Measurements will be performed by May 2018 and follow-up every 30 days for sustainability.

Lessons Learned: The staff involved challenged future state and this required gradual changes with follow-up and building on small changes each week enabled progression. This approach is time consuming but allowed a change-resistant culture to evolve and become a leader in trying this process. Nursing practice changes applied at other sites but not locally utilized or accepted caused uncertainty among staff. This requires better communication to TBCC management to ensure understanding and support of change which create a new system.





ALBERTA SCREENING AND PREVENTION " A SUCCESSFUL QUALITY IMPROVEMENT PROJECT"

Context and Relevance: Offering suitable, evidence-based screening tests to patients promotes good health which helps prevent disease; increasing offers leads to more patients completing a screen. It also aligns with the Patients Medical Home (PMH) goal of offering Albertans seamless care that is patient centred. Alberta Screening and Prevention (ASaP) was designed to improve practices in clinical care by encouraging primary health care (PHC) teams to offer patients evidence-based screening tests.

Methods: Taking part in ASaP meant that PHC teams explore the PMH concepts of: patient paneling (working out the number of patients the PHC team is responsible for), quality improvement, team-based care, evidence-informed care and patient-centred care. The idea was to support physician/team behaviour changes as patients presented in clinics and by inviting them in for an appointment. Part of the improvement process was to understand how the work could be shared between other members of the PHC team and not just something the physician does. Sample patient chart reviews were done to assess baseline and follow-up screening invitation rates. A trained improvement facilitator supported PHC teams with behaviour changes.

Outcomes: Asap is an ongoing program that supports Primary Care Networks (PCNs) to deliver and continue screening/prevention in their clinics. As of February 2018: 31 PCNs enrolled, 909 physicians enrolled provincially and 1,004,400 Albertans are on patient panels where the PHC team are actively offering evidence based screens. Compared to a similar project in another province ASaP was low cost to start and continues to show physician/team behaviour changes; patients registered with a family physician enrolled in ASaP have a higher chance of being offered screening tests. ASaP adds value: as local information that can help with decision making/ guide intervention/development; as a practical approach to developing a PMH; as a proven way for Albertans to be proactive about their health; identifying leaders to inspire change in our health system.

Lessons Learned: Forming a patient panel took longer than expected; focussing on clinical improvements/providing practical support was key to physician engagement; this was an opportunity to build capacity at the PCN level to continue ASaP and to build PMHs.





AN ENHANCED CARE PATHWAY FOR UNDERSTANDING THE PATIENT AND THEIR CONTEXT

Caring for high users of health care, the small portion of the population that uses a disproportionally high share of health care resources, has been recognized as an area that needs attention for ensuring that our health care system is sustainable. Canadian studies have found that this population accesses acute care more often than the general population, is more likely to have multiple chronic illnesses, have serious psychological illnesses and addiction, come from disadvantaged population groups, be unemployed, and have limited social support. Studies have determined that life factors such as adverse childhood events, depression, poverty and dementia, contribute to poor health outcomes. The long term purpose of this QI project is to determine if screening high users for these determinants of health and addressing their issues by enhancing care within a primary care setting will decrease their use of the acute care system and improve their health outcomes. The current portion of the work has focused on finding appropriate tools for screening and on clinical workflows around both screening and addressing areas of difficulty for the patients.





AN INTERDISCIPLINARY APPROACH TO PRESSURE INJURY PREVENTION

Pressure Injury Prevention (PIP) is not a new topic for providing safe patient care, but there is always opportunity for practice evolution. In working to optimize the health care practices for pressure injury prevention, the question which often arose was, 'whose work is this anyways?' This statement simply being an utterance of clinicians truly trying to understanding who is supposed to do what. In the Wounds Canada, best practice recommendation for prevention and management of pressure injuries, a pivotal step identified to implementing an effective pressure injury prevention care plan, is assembling an interdisciplinary team to work purposefully together, to prevent pressure injuries versus a multitude of disciplinary members with a unique understanding, working independently (pp.27). At the Peter Lougheed Center (PLC) in Calgary, AB, the surgical inpatient units came together, as an interdisciplinary team, to use the Alberta Health Services (AHS) Improvement Way (AIW) as a framework to define opportunities to implement an interdisciplinary approach to evidence informed PIP. During the team's initial process of identifying key problem statements, interdisciplinary members were able to identify their perceived role of each member at the table, and how they may contribute to an interdisciplinary care plan. As a team we soon realized that we were working in silos, and were missing proactive and purposefully driven interactions between disciplines, for PIP care planning, intervention implementation, and communication. Over an eleven week AIW process the PLC surgical inpatient team, created an effective interdisciplinary approach to PIP via the following interventions: defining key roles, and algorithms for consultation, optimization of the electronic medical record PIP components, and guidelines for care planning and documentation were defined. As part of a measurement plan for this AIW work, a comprehensive audit was completed pre and post implementation of the aforementioned interventions allowing process change and continuous improvement to be actively measured, enabling the team to continue identifying opportunities. This process is an ongoing commitment that has truly enacted an interdisciplinary approach to providing safe patient care and allowed our team to answer whose work pressure injury prevention belongs to, which is everyone.





ARTHROPLASTY PAIN MANAGEMENT: CHANGING THE PHILOSOPHY OF OPIOIDS TO ADJUNCTS IN PAIN MANAGEMENT

Historically total hip and total knee replacement patients in the Edmonton Zone have been discharged from hospital with a prescription of 6-8 weeks of opioid medication. Opioids have been considered first line pain management in this patient population with other modalities as the adjuncts. In light of the global opioid crisis, we asked if our patients actually do require 6-8 weeks of opioids. Are total joint replacement patients the exception to the current evidence or are these patients at risk for opioid dependence and/or overdose as well as opioid diversion? Currently it is suggested that post-surgical pain should be manageable by modalities other than opioid analgesia within 4-7 days. There was a lot of concern that the current opioid prescribing suggestions would not meet the need of total joint replacement surgery patients. We began this project by gathering all the interprofessional clinicians that support this patient population through their continuum. This has included engagement from pharmacy, anesthesia, surgeons, hospitalists, nursing clinic, OR, inpatient and allied health clinic and inpatient. The first phase of the project included developing a better understanding of current evidence and designing a pain management teaching tool. Once all parties agreed on the teaching tool, the tool went live for 6 weeks at the Royal Alexandra Hospital Arthroplasty units and the Edmonton Bone & Joint Clinic. Feedback through a formalized questionnaire was obtained from patients in hospital and at their 2 week follow up appointment. All feedback has been reviewed and we are currently seeking stakeholder input to update and finalize our teaching tool. The next phase will include formalizing clinician education for consistency in patient teaching in the pre-operative clinic appointment, upon admission to pre-op, and on the inpatient units by all care providers. Minimizing opioid prescribing reduces the risk of opioid dependency, overdose and/or diversion from our patients. Once this has been finalized, we intend to spread this work to the Misericordia Community Hospital, then potentially provincially through the Bone and Joint Strategic Clinical Network.





BETTER WITH AGE: CHANGING THE CULTURE IN ACUTE CARE

We began a pilot project in partnership with the SCN to improve EFC in acute careAs the proportion of older people in Alberta continues to increase, the number of individuals seeking acute care services is likely to increase. Hospitals can be a difficult place for frail, older people with functional and/or cognitive impairment. One third develop new cognitive and functional disabilities unrelated to the illness that caused their hospital admission. Seniors currently account for 63% of acute inpatient days 4 working groups targeted to improve sleep, recognize and reduce delirium, restraint reduction and increase mobility/reduce falls were born out of education sessions whereby staff identified challenges in our current environment. We called them closer to the patient, reducing overstimulation, meaningful activities and medication reviews. Frontline staff reviewed routines and the environment for QI opportunities. After group discussions, we implemented and evaluated the suggestions. Ideas were tested by peers, evaluated by surveys for engagement and ongoing improvement. Discussions at staff meeting were targeted at reducing barriers and changing culture. RLS review showed a 50% reduction in falls during the first phase of the change. We worked with physicians to gain an understanding for the goals for the project and what they might expect to see. Successes include: increased nursing time at the bedside with the relocation of various chart documents; increased coverage at shift change with a change in HCA hours; clearer identification and prioritization of call bells with a change to the allocation of alarm sounds; reduction to overhead paging; quiet time; reduction of light and noise in patient rooms; change to nursing routine to allow less interruptions during sleep; adjusted med times; walking program; appropriate use of bed alarms; activity boxes; Top 5 (getting to know your patient); Medication reviews; increase use of whiteboards which has increased patient/family communication; Care planning. We plan to build sustainability by incorporating education in orientation, continuing discussions at staff meetings and future planning. We are building education to share with other departments who are involved with inpatients to further continue our Elder friendly care work and create an Elder friendly community.





BREAKING DOWN BARRIERS: IMPROVING FALL RISK SCREENING IN RENAL PATIENTS

Context and Relevance:Falls are the leading cause of injury for seniors. A fall can lead to decreased patient quality of life, longer hospitalizations, and are estimated to annually cost the Canadian healthcare system \$2 billion. As of December 2016, fall screening rates in the Alberta Kidney Care South hemodialysis (HD) units averaged 85% while the Chronic Kidney Disease (CKD) and Peritoneal Dialysis (PD) clinics were 58% and 44% respectively. Low screening rates imply that patients are not properly identified for their risk of falls. The goal of this project is to address the challenges associated with screening and ultimately increase the screening rate in the CKD and PD clinics by 10%.

Methods: To determine the cause of the low screening rates, process maps were created for each clinic. When compared, substantial variation existed in the duration of tasks. Workarounds were developed to adapt to the constraints of their program. In addition, the high risk assessment accounted for over 60% of the process time. Staff representatives distributed surveys and put posters in the clinics to capture staff suggestions. Focus groups were organized to brainstorm potential solutions and the following changes were made: 1) Modified screening frequency based on patient risk 2) Developed a new high risk assessment that focused on modifiable risk factors 3) Identified interventions to address the modifiable risk factors in the new assessment

Outcomes: The new program improves patient safety and quality of care through comprehensive screening and targeted interventions. By removing screening barriers, the staff are more likely to complete screening and assess high risk patients. In addition, the shorter process allows more time for other nursing related tasks. Screening frequency and other process measures will be collected and analyzed to ensure the new process is successful.

Lessons Learned: Each clinic within the program has different models of operation, resources, and patient populations. In order to be successful, the processes must be adapted to meet the unique needs of each clinic. The process is currently being piloted with future plans to spread to the rest of the program.





BRIDGING THE GAP: LEVERAGING KNOWLEDGE TRANSLATION TO IMPROVE INPATIENT DIABETES MANAGEMENT

Context: 1 in 5 patients admitted to Alberta hospitals has diabetes. Diabetes Canada recommends blood glucose (BG) targets of 5-10 mmol/L using a proactive prescription of Basal Bolus Insulin Therapy (BBIT) for glucose optimization. Alberta audit data confirmed a diabetes care gap, with multiple paper based insulin protocols and substantial BG variability, contributing to increased morbidity, mortality and length of stay. An opportunity was recognized to address a care gap while improving clinical outcomes and experience. Further, patients have requested improvement in glucose control and medication administration in hospital in a survey conducted by the Diabetes, Obesity and Nutrition Strategic Clinical Network (DON SCN).

Methods: With a common goal of improving inpatient diabetes management, the DON SCN and administrative, physician, nursing and pharmacy champions from Chinook Regional Hospital partnered to co-develop and optimize a multi-faceted, evidence-informed knowledge translation 'toolkit' to support implementation of BBIT and sustain its use across the province. The toolkit included readiness assessments, facilitated identification of barriers and facilitators, a newly developed and revised paper-based order set and insulin administration and blood glucose record, optimized centralized resource website (www.bbit.ca), multidisciplinary education sessions, focus group meetings, and data audit and sharing. Primary outcomes included BBIT ordering frequency, patient-days with moderate or higher hyperglycemia (BG >14mmol/L) and patient-days with hypoglycemia (BG <4mmol/L). Results were communicated to the site via a Tableau dashboard and personalized data review meetings with site champions. The toolkit was optimized following feedback, using an iterative Plan-Do-Study-Act approach.

Outcomes: Over 18 months, BBIT ordering increased by 25% (17% baseline vs 42% post-intervention, p<0.001), representing a nearly 250% increase from baseline. This was associated with significant reduction in hyperglycemic patient-days from 34% to 26% (absolute reduction 8%, <0.05) with no increase in hypoglycemic patient-days. These outcomes demonstrate a successful, sustained clinical practice change and improved patient outcomes.

Lessons Learned: Engaging site champions to participate in co-development of tools and strategies to overcome barriers to practice change, informed by knowledge translation science, has resulted in the development and optimization of the resources on the interactive www.bbit.ca. These learnings will inform future BBIT implementation strategies for hospitals across Alberta.





BUILDING A SITE STRATEGIC PLAN: ENGAGING STAKEHOLDERS TO BUILD A ROADMAP FOR FULFILLING THE GLENROSE REHABILITATION HOSPITAL (GRH) MISSION

Context: The GRH is a tertiary-level rehabilitation facility, providing crucial services to central and northern Alberta and beyond. The GRH plays a unique and pivotal role in the healthcare continuum, and also functions as an academic teaching facility for numerous health professions educational programs. Given the ever-shifting healthcare landscape, an updated strategic plan was required to navigate operational changes and align with over-arching AHS organizational goals.

Methods: Beginning with executive sponsorship from the site's Medical Director and Senior Operating Officer, a Strategic Planning Committee was struck and an experienced project manager identified to lead this massive undertaking of engaging innumerous stakeholders to inform directions for the next 5 years. The GRH 2018-2023 Strategic Plan was developed through conversations with those who knew the hospital best – our patients, families, staff, physicians, volunteers, and a diverse group of community partners. The planning committee included strong patient/family, physician, administration, quality improvement, academic, and frontline representation, and conducted focus groups, one-to-one interviews, and online surveys to capture as many voices as possible in the planning process.

Outcomes: Input was obtained from 591 GRH staff members, 52 physicians, 10 patient/family members and 46 community stakeholders. Leading rehabilitation centers across Canada were also consulted on how they addressed challenges, factors behind successes of their flagship programs, and plans for the future. Themes from all sources of data were identified, and consensus was reached in the development of four strategic directions, each with 2 to 3 goals and specific areas of focus. Dissemination of the strategic plan included a 1-page infographic to provide a high-level overview for all stakeholders, and a more detailed 6-page document that described the process of arriving at these strategic directions and details on specific goals and areas of focus.

Lessons learned:Input from diverse stakeholders, including more than 50 internal and external programs, resulted in a robust roadmap for building an operational plan that resonates with the GRH vision of 'Building Abilities for Life'. Translating this strategic plan into actionable operations, research, and quality improvement will hinge on maintaining our collective commitment to advancing a culture of patient- and family-centered care.





CLINIC OPTIMIZATION IN COMMUNITY CANCER CENTRES: PROVINCIAL CLINICAL OUTREACH TEAM + COMMUNITY CANCER CENTRE TEAMS = BETTER CLINIC FLOW AND PATIENT EXPERIENCE

Context and Relevance: It is vital that patients with cancer have access to reliably consistent, high quality care across the cancer continuum. In Alberta, patients are able to receive cancer treatment and supportive care as close to home as possible through numerous, integrated cancer centres. It is essential to ensure that care processes at each cancer centre are provincially aligned and tailored as necessary to meet unique needs in the community. Methods: Work on this Quality improvement project began with the challenge of improving the efficiencies and capacity within the eleven community cancer centres while ensuring a patient-centred approach to care and safety were maintained and potentially enhanced. Starting with one site and using a Plan-Do-Study-Act model, a current state review was undertaken to identify gaps, followed by development of guidelines and templates to facilitate booking patients using chair time, clarifying nursing and unit clerk roles and responsibilities, and restructuring of clinic to enhance patient flow and optimize staff resources. The work has spread to other community cancer centre sites using this same model, taking the lessons from each site and evaluating outcomes through observation, chart audits, booking error reports, and staff and patient feedback.Outcomes: Results from this work are ongoing but have included improved clinic flow for staff and patients, improved scheduling of patients and more manageable workloads for staff, alignment with processes established in the larger cancer centres within the province, and improved communication and continuity of patient care. As a result of this work, site capacity and utilization can now be accurately measured, which influences decision-making on scheduling, staffing, and site funding. Staff have an increased ability to focus on their roles and communicate within the team which improves patient safety and patient experience. Lessons Learned: Implementing change is hard! The site teams have learned to think differently about how they've always done things and have been rewarded by their own ingenuity and willingness to try a new process. Accurate data about capacity leads to better use of resources.





CLINICAL IMPACT REPORTING AND ASSESSMENT OF NON-CONFORMING EVENTS IN ANATOMICAL PATHOLOGY

Purpose: Error or Non-Conforming Event (NCE) reduction in Anatomical Pathology (AP) is critically important for patient safety. Since NCEs differ in terms of their Clinical Impact (CI), uniform documentation and continuous monitoring of the rates and types of NCEs and CIs are essential components of a robust Quality Assurance (QA) plan. This studies purpose was to evaluate and revise as needed the existing definitions and reporting of the CI of NCEs captured by the APQA plan in Alberta. Study design: A working group of the Alberta Health Services (AHS) APQA Steering Committee analysed the merits of the existing policy by examining the NCE and CI data of the analytical phase of the workflow pathway captured by 5 of the APQA plan metrics. Results: Gaps in the reporting of the Cl of NCEs ranging from 27% for discordant intraoperative consultations to 33% for revised reports were found throughout the provincial data. This highlighted systemic issues with the existing processes and led to revisions which emphasized uniform definitions of CIs associated with NCEs, and provided relevant pathology examples. The revisions were validated using a complete subset of metric 12 (Tumor Board Review Outcomes) data which represented 3 years worth of Gynecological Oncology data from one of the health zones. The NCE frequency was 24.7% (174/705 cases) and 50% were due to changes in the malignant histotype, stage, or grade. CI assessment of all NCEs was possible and 99% were categorized as 'no apparent harm'. Conclusions: Evaluation of the provincial APQA plan data led to a revision and clarification of the definitions and reporting of CIs associated with NCEs, and were successfully validated in a subset of metric 12 (Tumor Board Review Outcomes) data on gynecological pathology reviews.





CLOSING THE LOOP TO ACCELERATE DIAGNOSIS AND MANAGEMENT OF BREAST CANCER

In 2016, Alberta breast care providers came to consensus on an end-to-end pathway and identified priority areas for improvement that included addressing breast cancer diagnostic delays and associated patient anxiety. Evidence highlights diagnostic delays after a suspicious mammogram finding can be minimized when breast imaging providers facilitate a referral to a specialist and patient satisfaction with this is high. Clinical programs in different pockets in Alberta have successfully implemented facilitated referral processes for cancer diagnosis. This prompted initiation of a Cancer SCN-led quality improvement initiative in Edmonton and Calgary to co-design a breast cancer diagnostic assessment pathway with primary care, breast imaging providers, breast surgeons and breast programs.

A provincial diagnostic assessment pathway for patients with highly suspicious lesions on imaging was designed and implemented in Edmonton in Nov, 2017 and in Calgary in Jan, 2018. This included: 1) codesign of pathway and local targets; 2) implementation of standardized DI imaging report recommendations prompting immediate referral to a surgeon or program after highly suspicious finding; 3) notification by DI of breast program on imaging reports at the same time as primary care provider; 4) development of a letter from breast program to primary care provider to close the loop on patients with no referral initiated after imaging and provide information resources; 5) establishment of local and provincial measurement systems, in collaboration with Alberta Society of Radiologists.

Impacts to diagnostic assessment wait-times for patients with highly suspicious findings and associated patient experience is currently being measured, including time to biopsy, to referral, and to surgeon consult from diagnostic imaging, time to pathology report and to surgeon consult from biopsy, and referral rate prior to pathology results being reported.

Patient experience of diagnostic assessment is currently being assessed in Edmonton and Calgary.

A key lesson learned is that lack of central access and triage models for cancer care can be a barrier to engagement of primary care in co-design of facilitated cancer diagnosis pathways. Data-driven change to the pathway for breast cancer diagnosis is a model that can be spread to other tumor groups with appropriate program infrastructure and supports in place.





COLLABORATIVE CARE IN ADDICTIONS AND MENTAL HEALTH: CHARTING THE PATH

Context/Relevance: Collaborative Care has been implemented in Adult Acute Inpatient Additions and Mental Health (AMH) in the Edmonton Zone. The CoACT Collaborative Care Design provides a roadmap, however, it needs to make sense and provide benefit to the patients, families, and staff in an AMH practice setting. Methods: In order to ensure the design makes sense in an AMH setting, the following occurred:

1. Working group was created to review and suggest any needed changes to the design for application in AMH

2. Frontline team members were engaged to share ideas and identify facilitators and barriers.

3. Findings and recommendations were supported to trial in a single care area at the Alberta Hospital Edmonton (AHE)

Outcomes: The sense of frontline ownership and buy in created through this process is inspiring a culture change at the AHE. Care providers are able to contribute to focused changes in the way Collaborative Care is rolled out in AMH, advocating for their specific patient population and work place. Through the application of newly designed tools, patients are able to successfully navigate their daily activities while in hospital and providers experience better role clarity within the workplace.

Lessons Learned: Collaborative Care supports patients and providers in AMH. Frontline staff are able to understand and apply the CoACT Collaborative Care Design to patient population needs when supported by leadership to focus and discuss as a group. Members of the Leadership Team, supporting the frontline working group, removes roadblocks and inspires commitment to Collaborative Care. Challenges include involving physicians in a way that is engaging and beneficial to their provider group.

Next Steps: In sharing this story we aim to illustrate and highlight how engaging frontline staff in this process can strengthen the approach to advancing Collaborative Care in other specialty areas within AHS.





COLLABORATIVE CARE: MAKING A DIFFERENCE!

Background:CoACT Collaborative Care implementation began in 2014 and is currently being optimized in 160 medical, surgical and mental health units across 20 urban and rural sites within AHS across all zones. To determine the impact of Collaborative Care and its potential for enhancing care delivery, a comprehensive evaluation was undertaken. The Collaborative Care Evaluation Report details the findings and recommendations for optimizing implementation. If this abstract is accepted, the presentation will outline both the findings and the recommendations from the Evaluation Report.

Methods:A mixed-methods developmental evaluation was conducted using data from FY2014/15 to FY2016/17. A RE-AIM framework i.e. Reach, Effectiveness, Adoption, Implementation, and Maintenance, was adopted to thoroughly understand the overall impact of Collaborative Care. Both qualitative data and quantitative data were used for the evaluation.

Findings:The findings from the evaluation report confirm early positive impacts including: improved experiences of both patients/families and providers; improved provider teamwork and communication; a greater focus on patient-family centeredness in patient care resulted in most patients and families being included and feeling engaged; a positive impact on selected clinical outcomes.

Lessons Learned: The report identified 10 recommendations which are currently being implemented to strengthen ongoing implementation and sustainability of Collaborative Care. The full benefit of Collaborative Care will evolve as the scale of implementation grows and the scope of uptake accelerates. Implementation and optimization strategies are ongoing in partnership with stakeholders to address the recommendations of the report and develop a framework, including an approach, for ongoing evaluation. Collaborative Care is making a meaningful and impactful contribution to advancing a culture of patient and family centered care and needs to continue.





COMPASSION FIRST: APPLYING EMPATHY MAPPING IN DIFFERENT IMPROVEMENT CONTEXTS

The quality improvement (QI) geeks enter the clinic with every intention to make a difference with each team they meet. Armed with evidence, facilitation skills and enthusiasm what could go wrong? We regularly stumble over the same obstacle: missing voices at the table when defining current state and why patients and the team will benefit from the improvement journey ahead. Consequently the teams struggle to build investment in the future state and spread improvement gains. Alberta AIM has tested different approaches to build importance for improvement work with teams before the work starts. The empathy map has proven to be a powerful facilitation tool to dig deep into clinic teams' lived experiences in advance of team strengthening, access improvement, person-centred practice and patient engagement workshops. We have used it in two specific ways: 1) to build compassion for the patients and families who access services and 2) to vision how patient and staff experience might improve with QI efforts. Magic happens when we ask teams to hit pause and collectively reflect on how patients and employees experience the current state. We've seen: providers' and team biases exposed, patient and family views becoming central to improvement discussions, open and honest discussions regarding today's system evolving into shared understanding of the here and now, and united teams deciding collectively to invest in a QI project. We have had great success using empathy mapping to help teams collaborate, visualize, and integrate user experience into QI. We have also learned many tips and tricks of how to facilitate this activity so compassion is at the front of teams' improvement efforts. After the empathy mapping activity, teams are left with a tool that can be used for future discussion, even when the improvement geeks leave the clinic! We are excited to share our learnings in a practical workshop and help spread the use of this tool and the importance of empathy in improvement work.





CREATING A PATIENT- AND FAMILY-CENTRED CULTURE AROUND QUALITY IMPROVEMENT THROUGH PATIENT PATHWAYS

Context: Patient- and family-centred care is highly valued at the Glenrose Rehabilitation Hospital (GRH). We sought to improve patient and family experience during transitions in care at the GRH, by applying a co-design model to the improvement process, which has been shown to improve clinical outcomes and patient satisfaction (Sharma et al., 2017). Our hope was that supporting patients and families in leading the process of improving transitions in care would produce sustainable, patient-centred outcomes.

Methods: To empower patients and families, we invested considerable time at the start of the project to ensure its success. Patient and family advisors formed a key part of our small steering committee and were integral in developing a project charter and plan. Four focus groups were conducted between September and November of 2017 with patients, families and frontline staff, to help identify barriers to patient- and family-centred care during patient transitions. Themes were identified and recommendations developed by the steering committee.

Outcomes: Through the project, we worked to develop and test a process, based on the AHS' Guidebook for Engaging Patient and Family Advisors, which ensured successful involvement of patient and family advisors throughout every step of this improvement project. Following the focus groups, six themes were identified: 'Working toward a shared purpose', 'Clear and consistent communication', 'Putting patients first', 'Supporting patients and staff through challenging situations', 'Right equipment at the right time', and 'Community supports'. 39 specific recommendations were developed, with 24 of these recommendations implemented to date.

Lessons Learned: We learned that engaging, educating and supporting our patient and family advisors took time, but the time spent resulted in empowered, highly motivated advisors, who were able to robustly contribute to our process. Our patient and family advisors reported feely grateful to be able to give back to the healthcare system, despite the considerable time investment. We also found a surprising collision of ideas, where patient, family and staff themes built upon one another and further supported existing quality improvement work at the GRH.





CREATION OF CEILING AND MOBILE CLIENT LIFT GUIDELINES FOR AHS FACILITIES

Client (patient/resident) handling is the number one cause of musculoskeletal injuries (MSIs) for healthcare workers. Engineering (equipment) controls are the most effective controls for preventing and mitigating safety risks. The creation of the 'Ceiling and Mobile Client Lift Guidelines for AHS Facilities' supports the provision of the right client handling equipment in the right places to increase worker safety and to provide a safe and consistent healthcare experience for clients. Prompted initially from the AHS Our People Strategy which committed to 'reduced health and safety risks through infrastructure planning', the guideline will be mandatory for all new AHS Class A and Class B healthcare facilities. It will also be adhered to as much as possible for planned capital renovation projects in AHS, working within the constraints of the existing facility infrastructure. The guideline was developed through a multi-stage iterative approach including a literature review, ongoing commitment by a multidisciplinary and multiorganizational (AHS, Alberta Infrastructure, Alberta Health) working group, reference to key legislation and standards, consultation with professionals in other Canadian healthcare organizations, internal reviews and observations of AHS facilities, engagement of AHS workers and clients and families, and consultation with many other stakeholder and special interest groups. Feedback was reviewed and incorporated by the working group throughout this process. A final, endorsed version of the guideline is expected in summer 2018. Application of the guideline will ensure a consistent approach and analysis of client lift needs during the planning and design stages of AHS healthcare facilities. This will result in the right client handling equipment being in the right places for both worker and client safety. In turn this will yield a reduced worker injury rate and severity, associated cost savings, and improved client experiences in healthcare. The biggest challenge, and thus also the biggest success for creating this guideline, is that this guideline is the first of its kind in Canada. It will be the culmination of two years of work to bring together this compilation of research, experience and expertise to yield a pragmatic, applicable guideline to benefit the users of future and current healthcare facilities in AHS.





CROSS CANCER INSTITUTE COLPOSCOPY CLINIC - TISSUE SPECIMEN QUALITY IMPROVEMENT PROJECT

The Colposcopy Clinic at the Cross Cancer Institute has been receiving a steady stream of incident reports due to incorrect processing and handling of collected tissue specimens. Errors in specimen processing can lead to delayed diagnosis, the need to retake the specimen and patient anxiety, in addition to workforce delays due to staff being required to fill out incident reports and waivers. These errors are entirely preventable. As patients put their trust in their health care providers to properly collect these specimens and because these errors have persisted, leadership saw this as an opportunity to engage in a collaborative quality improvement process. To assist in problem solving, we have employed the Alberta Health Services Improvement Way (AIW) 4 step framework. The framework also involves the use of tools and templates to assist the quality improvement process. In the process of describing the issue, we found 3 recurring problems under the umbrella of specimen processing issues: mislabeling of specimens, incomplete requisitions and leaking specimen containers. In order to properly examine the issue we had to look at: workflow process, conditions under which the tissue biopsy occurs, the equipment being used and the transport from clinic to lab.We then had to build understanding of the issue to discover why the problem exists. In examining this factor, we called upon the expertise of the clinic nursing and clerical staff to brainstorm and collaborate with us. The staff were able to guide us in detail through the procedure and the conditions surrounding the procedure of tissue biopsy acquisition. We were able to identify some of the underlying problems: issues with the collection jar, the repetition and associated errors of manual transcription on patient labels, and the process by which the lab requisition is filled. We completed a fishbone diagram with all of the potential causes to lead us in determining implementation strategies to reduce future incidents. We will now implement changes to the procedure and collect data from ongoing incident reporting to monitor for a significant reduction in related errors over a sustained time frame. This will result in a patient focused process.





DECREASING REPROCESSING ERRORS AT MDR: CHINOOK REGIONAL HOSPITAL

Context and Relevance: Patient harm arising from the use of improperly sterilized instruments is a 'never event' as identified by the Canadian Patient Safety Institute. While most issues are identified prior to onset of surgery, a sterilization issue often results in frustration, rework, and delay causing stress on the patient and the surgical team. Starting in June 2016, The Medical Device Reprocessing (MDR) team at the Chinook Regional Hospital focused on the opportunity to reduce errors in the sterilization of surgical instruments.

Methods: Known errors were analyzed and divided into seven different categories. A formal reporting tool was developed allowing for specific identification of the type and impact of the incident, with traceability back to the type of instrument and sterilization date. Front-line staff were involved in a 'cause-and-effect' and '5-why' analysis. Human Factors was consulted to provide recommendations for categories that were a result of human error. Making the errors visible by type and frequency empowered the manager to advocate for appropriate materials and equipment. Every error is tracked and reported back to the MDR team on a monthly basis by category, number, rate, and by the impact to patient care.

Outcomes: There is no standard way of collecting data on errors, and no comparable data with other MDR's in Alberta, or elsewhere. One full year of data is now being used as a baseline for measuring improvement over time. Significant reduction in two error categories has been achieved to date with ongoing work in all error categories to improve upon baseline. Reduction in errors increases the trust and respect between the surgical and MDR team, and improves the safety and quality of the surgical journey for patients.

Lessons Learned: MDR staff have embraced the new culture of improvement. They participate in frequent celebrations of their successes, and have actively engaged in more detailed analysis of error reports to help identify other potential root causes. Involving the expertise of Human Factors was key in illuminating potential root causes that front-line staff were unaware of.





DEPRESCRIBING BENZODIAZEPINES IN HOSPITALIZED SENIORS USING A PATIENT-EDUCATION INTERVENTION.

Background: The inappropriate use of benzodiazepines among seniors is common. We aimed to deprescribe or reduce the dosage of benzodiazepines among newly hospitalized seniors using a combination of medication review, patient education material, and patient counselling.

Methods. We implemented a quality improvement protocol from August to October 2017 for patients aged 65 or older and taking one or more benzodiazepines, who were newly admitted to one of 2 units at the Glenrose Rehabilitation Hospital. The intervention involved a structured medication review, provision of written educational material (the EMPOWER brochure " Cara Tannenbaum and Institute Universitaire de Gériatrie de Montreal, 2014) and at least one brief supportive counselling session by the clinical pharmacist or physician. Outcome measures included the number of people consenting to deprescribing and had benzodiazepines deprescribed. Process measures included the number of eligible participants who received the intervention. Balancing measures included the incidence of complications, new benzodiazepine prescriptions, and intervention costs.

Results. All 12 eligible patients consented to benzodiazepine deprescribing. Eleven of them initiated benzodiazepine deprescribing. Six of the 11 (55%) patients had their benzodiazepines discontinued, with the 5 remaining patients achieving greater than 50% dosage reduction. Seven patients (58%) experienced side effects during the deprescribing process, with over half (n=4) experiencing worsening anxiety symptoms. Five of the 12 (42%) patients required benzodiazepine substitute medications.Conclusion. We were able to deprescribe or decrease the dosage of benzodiazepines in the majority of patients. Using a combination of medication review, patient education, and brief counselling can empower patients, support appropriate benzodiazepine usage, and is well-tolerated and acceptable. Clinicians, however, need to anticipate the management of anxiety, a common side effect.





DOES STANDARDIZED CARE IMPROVE EFFICIENCY AND WAIT TIMES WHILE MAINTAINING CLIENT EXPERIENCE?

A Community Rehabilitation service standard was developed in 2016 for outpatient physiotherapy (PT) for clients following fracture or orthopedic surgery. The standard identifies agreed upon expectations for practice and service delivery. The Red Deer Hospital rose to the challenge of being an early adopter site for this standard and began implementation in August 2017. Drivers for starting the work included meeting the demand of large numbers of clients waiting for PT services; a desire to include patients as partners in their recovery; to inform sustainable service delivery; and to maximize finite resources.Resources were available throughout the process, including team participation in a provincial Innovative Learning Collaborative for Community Rehab; site manager and area director support; a PT Clinical Lead who provided education sessions and resources for front-line staff; team attendance at a Health Change Methodology workshop; and consultation with provincial Senior Practice Leads. The team tracked metrics including client experience, patient reported quality of life, percentage of functional collaborative goals set, clinical outcome measures, number of clients waiting for service, wait time from referral to initial visit, average number of visits per client, and percentage of clients who received the recommended number of visits. The project has been a resounding success to date. Client experience has averaged 95% positive; average visits decreased from 8 to 3.5; 75% of clients received the recommended number of visits with no clients seeking physiotherapy for the same condition once discharged; total PT waitlist reduced by 75%; wait times dropped from 65 days to 12; and staff are engaged in continuing the work.

Lessons learned and new questions to be answered: How important was the collaborative goal setting to the outcomes achieved? Why are patients so satisfied when they received less service visits? How can the success of this project be spread provincially and broadened to include clients with other musculoskeletal conditions? Ultimately this project may inform future sustainable service delivery that empowers patients and maximizes scarce physiotherapy resources.




ECONOMIC EVALUATION OF THE NATIONAL SURGICAL QUALITY IMPROVEMENT PROGRAM (NSQIP) IN ALBERTA

Background: Five acute care facilities of Alberta Health Services (AHS) adopted NSQIP in 2015 for a pilot project. Objective: To analyze the healthcare costs and savings associated with quality improvement (QI) interventions initiated and implemented utilizing NSQIP.

Methods:The cost-savings of NSQIP were estimated from the start of NSQIP to the end of 2017 under an AHS perspective using this formula: Gross cost-savings = $N * (p1 \ \hat{a} \in p2) *$ unit cost, where N was the number of surgical patients after the intervention, p1 was the probability of event occurrence (within 30 days of surgery) before the intervention, p2 was the probability of event occurrence after the intervention, and unit cost is healthcare cost per event. To calculate the net cost-savings, we deducted the costs of NSQIP and its interventions from the gross cost-savings.

Results: The QI initiatives initiated by NSQIP to reduce surgical events had significant impacts clinically and economically. The gross cost-savings of NSQIP were estimated at \$11.4 million. Subtracting the costs of NSQIP and its interventions (\$2.6 million) from the gross cost-savings, the net cost-savings were \$8.8 million. The return on investment ratio was 4.3, meaning that every \$1.00 invested in NSQIP would bring \$4.30 in returns. The sensitivity analysis showed the probability for NSQIP to be cost-saving was 95%.

Conclusion:QI interventions initiated and implemented utilizing NSQIP appear to be effective and costsaving for AHS. These cost-savings would be even larger if NSQIP was prolonged in the pilot sites and/or expanded to other sites across the province.





EFFECTIVE PRENATAL PATIENT EDUCATION AND PROVISION OF LABOR ANALGESIA

Context & Relevance: According to national guidelines (SOGC), women should be provided with written information and links to resources regarding evidence-based analgesia options antenatally. Currently, evidence-based resources on labor analgesia are not readily available nor routinely provided during prenatal care. Instead, information is often provided by an Anesthesiologist during the peak of labor when processing information and obtaining informed consent is difficult. Misinformation obtained antenatally may also contribute to a delay to request an epidural, a missed epidural, and/or a decreased satisfaction of birth experience. Methods: An evidence-based labor analgesia pamphlet, and online videos will be created. Preliminary data prior to distributing the labor analgesia resources will be collected on epidural rates, missed epidural rate, baseline antenatal labor analgesia knowledge, and baseline obstetrical patient satisfaction with birth experience. Both the antenatal labor analgesia knowledge and obstetrical patient satisfaction data will be obtained by patient survey. The labor analgesia resources will then be routinely provided in the third trimester to patients during pre-natal care by their health care provider (Ob/Gyn, or Family Practitioner), as well as during pre-natal classes.Post-distribution of labor resources, data will be collected on epidural rates, missed epidural rate, antenatal labor analgesia knowledge, and obstetrical patient satisfaction; and compared with baseline data.Outcome:Potential results of creation and distribution of the labor analgesia resources include an increase in epidural rates, and subsequent decrease in missed epidurals during labor. We anticipate an increase in labor analgesia knowledge and patient satisfaction with birth experience after administering these resources. Ob/Gyns and Family Practitioners may feel more comfortable routinely discussing labor analgesia antenatally with these resources available to patients and their families.Lessons Learned:Potential challenges we may encounter could include difficulty recruiting patients to complete surveys. Other factors that contribute to epidural rates such as parity, length of labor, operative deliveries, twins, and previous caesarean section will not be captured in this project. If this initiative demonstrates improved patient satisfaction and increased labor analgesia knowledge, the resources could be made available on the Alberta Health Services website and accessible to women across Alberta.





EVALUATING THE IMPACT OF SELF-MANAGEMENT GUIDELINES FOR PROSTATE CANCER SURVIVORS

With the number of prostate cancer survivors rising, improving their transition to follow-up care is important. A recent survey by Alberta Health Services (AHS) (2015) discovered that genitourinary cancer patients rated areas related to information, education, communication and emotional support among the lowest of any other cancer group. This inspired us to pursue an initiative to improve their survivorship education. To help prostate cancer patients transition to follow up care, the AHS Provincial Genitourinary Tumour Team and Cancer Control Alberta were already developing a self-management guideline document. With their permission, we tested and evaluated its effectiveness and impact in facilitating the transition of Albertan prostate cancer patients from curative external beam radiation treatment (EBRT) to primary community care. We recruited 18 prostate cancer patients undergoing EBRT at two Alberta cancer centers, and delivered the document during their final week of EBRT. Four weeks later, they received a phone interview regarding the document's timeliness, patientcenteredness, safety, effectiveness, and comprehensiveness. We then thematically analyzed their responses. The data suggests that most participants were satisfied with the document in all areas. However, some recommended including side-effect timelines and symptom indices, as well as further simplified language. Literature also supports combining document delivery with verbal education and providing electronic and paper formats. We concluded that the document was effective and had a positive impact on transition to follow-up care. Therefore, with the recommended adjustments, it would be beneficial to the prostate cancer patient population for AHS to implement this document into standard follow-up care. Given the time limit on our project, we adjusted our expectations. We recognize that 18 participants may not accurately represent the target population. Additionally, four weeks may be insufficient to judge the long-term effectiveness of the document. Participants may have also felt required to use the document, which could have generated bias. However, the largely positive feedback from this small group was encouraging and demonstrated the document's impact. In the future, we would like to use a larger sample size and longer follow-up for other tumour groups, and have our research support the development of future patient-centred survivorship education initiatives.





EVALUATION OF THE DIABETIC FOOT CARE CLINICAL PATHWAY IN ALBERTA

Diabetes can cause poor circulation and peripheral neuropathy that result in foot ulcers. Diabetes foot ulcers (DFUs) account for a majority of lower limb amputations (LLAs) and approximately 85% of LLAs can be prevented through early screening and treatment of DFUs. An environmental scan of diabetic foot and wound care services in Alberta indicated low foot care screening rates, poor accessibility to treatment and no standard foot care practices. With assistance from patients and health care providers, the Diabetes, Obesity and Nutrition Strategic Clinical Network (DON SCN) developed the Diabetes Foot Care Clinical Care Pathway (DFCCP) to improve early detection of foot complications and direct timely referrals and treatment of DFUs. Clinician experts from primary care and specialty foot and wound care services developed educational resources, assessment and referral tools using Diabetes Canada guidelines. Patients assisted in developing educational resources to promote self-care engagement and self-management routines. Community-based high risk foot teams (HRFT) specializing in diabetes foot care were established in communities throughout Alberta to ensure timely referral and treatment of patients who presented to Primary Care with or at risk of an ulcer. A mixed method approach was used to examine referral data, patient and health care provider satisfaction/experience surveys, interviews from primary care and HRFT members, and emergency department visits to assess the effectiveness of tools, interventions, educational resources and processes. Preliminary findings revealed that implementation of the pathway tools at primary care sites facilitated timely and appropriate referrals to the HRFTs and improved access to foot care information for providers and patients. Potential impacts on patients included: improved self-management and quality of life; reduction in emergency and hospital visits for DFUs; and a reduction in DFUs over time. The pathway tools, educational resources, and HRFTs have raised awareness of the importance of consistent diabetic foot care screening and early intervention among patients with diabetes. Recommendations for scale and spread of the DFCCP have been outlined based on the insights offered by patients, primary health care teams, HRFTs and the DON SCN. Themes surrounding communication, collaboration and education were described as being key components to uptake and sustainability.





EVALUATION, ASSESSMENT AND DEVELOPMENT OF HEART FAILURE MOBILE APPLICATION (QARDIYOHF) FOR BETTER PATIENT OUTCOMES.

Background: Heart disease is second leading cause of death in Canada, with tremendous economic impacts on the healthcare system. Currently, there are several smartphone based heart failure (HF) apps available for patients. However, they have limited functionality in terms of features which could help patients manage their HF condition better. The aim of this study is to evaluate and assess the functions of QardiyoHF, a HF smartphone-based app developed for the patients and healthcare providers at the CHARM (Community Heart Failure Assessment, Rehabilitation and Management) clinic at Advanced Cardiology Consultants and Diagnostics (ACCD) in Calgary, Alberta.

Objectives: The primary objectives of this study are to evaluate the quality of life (QoL), medication adherence, and app adherence in HF patients using this app. The study also aims to validate the HF questions used in this app.

Methods: Approximately 100 participants will be enrolled in this study. To evaluate the QoL and medication adherence in participants, we will randomize participants in a 1:1 ratio of control to test participants. We will use Minnesota QoL questionnaire to evaluate QoL. Medication adherence will be evaluated using a questionnaire used in a previous study. Medication adherence and QoL will be compared between the two groups at baseline, 3, 6, 9, and 12 months after using the app. We will also evaluate the adherence to using the app in test group participants at 3, 6, 9, and 12 months using a questionnaire. Out of this group, 12 participants will be interviewed using semi-structured interviews and data will be analyzed qualitatively to explore patients' perspectives on using this app in depth. Furthermore, validity of the HF questions will also be evaluated by determining the Cronbach alpha coefficient.

Conclusion: The results from this study will help us improve the Qardiyo app, along with determining effects on QoL and medication adherence in patients using this app.





FACILITATING SAFE TRANSITIONS OF CARE: CONTINUING CARE DISCHARGE COMMUNICATION PROJECT

Transitioning between care environments puts patients, especially older adults, at risk of medication errors.'Continuing Education- Tech Talk'. The National Continuing Education Program for Pharmacy Technician . 1 CEU May 2017In April 2016, South Health Campus and Seton AgeCare Long Term Care/SL4 facilities identified an opportunity to improve communication processes, including the accuracy of medication reconciliation, occurring at discharge. The overall goal of this project was to decrease the number of medication discrepancies at discharge for patients being discharged from acute care into the community.Key Findings: Multiple medication discrepancies were occurring at discharge from acute care to Long Term Care/SL4 facilities; Communication redundancies within current process (i.e.-multiple discharge summaries, and multiple discharge medication reports). The initial phase of the project accomplished the following: a)Seton AgeCare LTC and SL4 identified 'at risk' HARMS medication list; b) the Most Responsible Healthcare Provider (MRHP) group received education on optimizing the 'discharge process' including the generation of a standardized medication list and accurate discharge summary, and;c)a standardized process for communication at discharge for AHS unit to LTC/SL4 facilities was established.Post implementation audit determined that there were an average of 9 medication discrepancies per patient chart upon return to continuing care. By standardizing the documentation process, including the development of timelines around when discharge documentation was required to be reviewed and completed by the attending physician, the average number of discrepancies was reduced to 5.8 medication discrepancies per patient chart and continues to decrease over time as clinicians become more familiar with the process. This project has helped to improve communication between acute care and continuing care healthcare providers and has also facilitated greater understanding of the importance of continuity of care for patients transitioning across our healthcare system.





FIRST EVER TRIAGE DENTAL ASSISTANT

The Public Health Dental Clinics' patients were frustrated over multiple long wait times (over 1 year for appointment) and messages not being returned (123 unanswered messages). Staff were struggling to cope with heavy workloads, working late and without breaks, contributing to high overtime/sick time. The clinic was over budget. The challenge was to better service patients, address work challenges and improve clinic functioning. One person needed a 'bird's eye view' of the overall functioning of the Clinic. Initially a Receptionist was hired. The role was quickly expanded to include more clinical functions and re-classified into a Triage - Registered Dental Assistant position - new for Dentistry. The Triage Assistant starts/ends one hour later than usual clinic hours. This allows for full coverage for staff breaks, late cases and patient reminder calls. Patients are now seen according to the severity of their dental needs, no longer feeling forgotten in the waiting area. The Triage Assistant does patient check-in, screening, history, etc. in preparation for their dental treatment when the patient would normally be waiting. Therefore, the patient's problems are addressed more efficiently, resulting in less time in the clinic and happier patients. After four months, Staff Overtime decrease by 87%; Casual Hours decrease by 93%; Missed Appointments decrease by 34% with a 99% Patient Satisfaction rate. Wait times for initial appointments has decreased by 4 months. This increases efficiency and improves cost/time savings to AHS. Clients are diverted from the ED so the dental problem is rectified sooner. This directly impacts the patient's health and quality of life. A surprise to us was that the staff had become reliant on overtime hours to augment their incomes. Over time, they adjusted to this change in practice. Also, this Triage Assistant was not accepted by all the team and some felt that she had too much power, questioning the hierarchy of roles. Again, this passed in time. We are in a much better place now. This Triage Assistant position has proven to be an asset to the patients/staff satisfaction in this very busy Clinic, providing a more healthy work environment.





FMC UNIT 57 PASS MEDS PROCESS IMPROVEMENT SUCCESS

FMC Unit 57 provides care for bone marrow transplant and hematology patients. During hospital stays, clinically well patients are provided 3-day Passes including medication (Pass Meds). In 2017, 644 Passes were provided to 250 patients (1.8 passes/day). Generating each Pass requires 30 minutes of nursing time and 45 minutes of pharmacy time, consuming 805 staff hours annually. The Pass Meds Process was identified as a Patient Safety risk. The project goal was to decrease time spent by staff on the Pass Process by 20% by April 30, 2018. The AHS Improvement Way (AIW) Methodology was used to facilitate the process improvement initiative, providing a data-driven approach and structure to guide the project. Data Analysis, Process Mapping and Waste Identification exercises revealed the impact of onerous workaround processes arising from well-intentioned concerns for patient care, creating unintended patient safety implications, e.g. non-standard handwritten medication schedules. The team discovered their process was not compliant with the Pharmacy Medication Policy, providing medications to discharged patients.Discovering the unworkability of the current state, the conversation shifted to how the Pass Process could be improved while maintaining a high standard of care for the Patients, eliminate Patient safety risks and reduce staff workload. Improvements Implemented: Eliminate Discharge Pass Meds: 219 hours (27% improvement)• Eliminate Handwritten Medication Schedules: 60 hours (7% improvement); Patient Transfer Criteria to 57B: 51 hours (6% improvement); Interdisciplinary Discharge Planning Meetings: 14 hours (2% improvement); Fax Pass Meds Requests to Pharmacy: 8 hours (1% improvement)The team developed a comprehensive standard operating procedure for Passes, outlining the actions required for Physicians, Nurses, Pharmacists and Patients. Patients are now provided prescriptions when they leave on Pass for the required medications. The time spent by staff on the Pass Meds Process was reduced by 43%. The project improved Patient safety, reduced medication waste and Patient wait time. Challenges encountered included competing priorities for resources and a desire to 'fix everything'. Both were addressed through leadership from Project Sponsors to maintain focus and ensure actions were consistently aligned with project objectives. These successes and learnings can be spread to other units sending Patients on Passes.





HAND IN HANDPARTNERING WITH PATIENT AND FAMILY ADVISORS = MAGIC

Traditionally, Patient Education is a passive transfer of information leaving people confused and overwhelmed. Change is required - people cannot partner in care, provide informed consent, or selfmanage without understanding their disease, care, and what to expect. CCA Patient Education's vision of the right information, at the right time and in the right way advances a culture of patient and family centred care (PFCC). Who better to direct how and when to do that than the patients and families themselves. Synergy (1+1=3) is real. Through committees, working groups, surveys, reviewing resources, starring in videos, patient and family advisors are an integral part of the team, as critical as clinical content experts. Collaboration has resulted in the creation of patient education toolkits comprising print, class and video materials, with pathways recommending timing of teaching. Harmonized, accessible key resources were the goal and working with advisors ensures the relevance to those experiencing cancer. Patient education toolkits are receiving positive reviews from patients and staff. Qualitative evaluation by CCA staff and patients conducted in June 2018 will inform the next iteration. CCA has established toolkits for systemic and radiation treatment, fatigue management, transitions, and sexual health. With learnings through HealthChangeMethodology, PFCC is advancing, self-management is being incorporated and the material is available to care providers in CCA and throughout AHS. Work on dissemination and communication continues. Despite many attempts, knowledge of resources and their value is still limited. Challenges ahead include: Continuing the practice change to patient and family centred care (using education) Engaging and serving diverse and vulnerable patients and families,• Increasing our repertoire of engagement modalities, Effectively linking patient reported outcomes to necessary education. Working with organization stakeholders and advisors, Patient Education has been transformed into an interactive, relevant service for patients and families. Further evaluation through qualitative analysis and patient reported experience measures will demonstrate the effectiveness of the change. Inspiration, compassion, motivation to achieve excellence; the power of collaboration, developing resources hand-in-hand with advisors = MAGIC! wish I had these resources when I was diagnosed; it would have made everything easierPatient Advisor





HEALTHY MOM, HEALTHY BABY: OUR JOURNEY TO INCREASING IMMUNIZATION UPTAKE!

Context & Relevance: Immunization of pregnant patients to protect the newborn from vaccinepreventable diseases, like influenzas, is one of the most effective, yet under under-utilized interventions to prevent illness, hospitalization and death among babies. However, immunization uptake by pregnant women in Alberta is less that 20%; resulting in preventable newborn illness and morbidity, and significant costs to care for these babies.

Methods: Our team mapped the vaccination-offering processes and implemented multiple PDSA cycles to support point-of-care immunization (POC) within relevant obstetric units and outpatient clinics at one urban hospital. A pre/post study design across four consecutive influenza seasons [2014-2015 and 2015-2016 (prior to POC implementation) and 2016-2017 2017-2018 (after POC implementation)] was used to determine vaccination uptake and maternal, pregnancy and infant outcomes. Nursing staff received POC and vaccination administration training and nursing 'vaccination champions' were identified on each unit. Vaccine offer rates were measured through weekly chart audit while surveys were used to measure nursing staff and patients' perceptions.

Outcomes: While the first season (2016-2017) post POC training and implementation showed nonsignificant increases in vaccination uptake by pregnant women, vaccination uptake this past flu season has significantly increased during the second season of our project. For the 2017-2018 season, YTD vaccine offer and uptake rates in outpatient clinics are significantly higher: 68%-78% and 62-69% respectively. YTD vaccine offer and uptake rates in obstetric triage and antepartum unit for the 2017-2018 season are: 33%-45% and 27-86% respectively versus baseline uptake rates of 18-20%.

Lessons Learned: POC immunization in pregnancy is feasible and improves vaccination uptake in outpatient clinics. Preliminary data shows patients' satisfaction with POC immunization as being high citing convenience and opportunity for risk-benefit discussion with obstetric care provider. Adjusting vaccination training to be more user friendly for nurses and including greater emphasis on patient engagement will be our next steps to prepare for the flu season next fall.Our excellent successes thus far derive from incorporating a team centered approach to training nurses in patient dialogue and patient engagement in addition to optimal vaccination skills and have led to both heathy Moms and healthier babies at birth.





HOSPITALIST OPIOID ACTION PLAN (HOAP) PHASE 1: REDUCING HARM FOR PATIENTS WITH HIGH RISK - ONE YEAR LATER

Context Rates of opioid prescriptions, hospitalizations, and deaths are exponentially rising. A highly diverse population are affected beyond illicit users, with many complex care needs. Despite evidence, harm reduction initiatives were previously more available in community compared to acute care settings. The Calgary Hospitalist Innovation Committee (CHIC) felt a responsibility to aid mitigation efforts though incorporating harm reduction strategies in our hospital settings.

Methods: The acute care Hospitalist programs at all four Calgary Hospitals were enrolled in the provincial take home naloxone program. Hospitalist Liaison Nurses were engaged to provide naloxone kit patient education. A referral process was established to connect patients with risk to Liaison Nurses. An awareness and education campaign was carried out to increase physician cognizance of opioid risk. The number of kits accepted and declined by patients were tracked to monitor project progress.

Outcomes: The first naloxone kit was provided in December, 2017. Since then, 31 patients have accepted kits and 2 declined. Wherever possible, Liaison Nurses include patients' family and support network in discussions about opioid safety and toxicity risk. Feedback from Liaison Nurses has been overwhelmingly positive, and highlights the diversity of patients being referred. While we hope it isn't needed, naloxone saves lives. Our initiative has increased availability to this life-saving intervention and promoted patient and family awareness for safer opioid practices.

Lessons Learned: Other groups also recognized the need for access to naloxone kits in acute care settings. Working collaboratively with unit nursing-lead initiatives was a mutually beneficial experience to integrate efforts for improved care. However, navigating existing silos and independent projects with the same goal remains a challenge. CHIC recognizes that the complexity of the opioid crisis requires a multifaceted response.

Future steps of this project include Phase 2: improving management of acute opioid withdrawal, including initiation of opioid agonist therapy in hospital, work to begin spring 2018, and Phase 3: improving communication of opioid plans between prescribers both in the hospital setting and during transition back to the community.





IMPACT OF NURSE PRACTITIONERS ON EMERGENCY DEPARTMENT UTILIZATION AND OUTCOMES AT THE STRATHCONA COMMUNITY HOSPITAL

Context: In May 2014 the Strathcona Community Hospital opened to improve access to patient care for residents of Strathcona County and the surrounding area. An innovative model of care was introduced utilizing Nurse Practitioners (NP) in three care settings: (1) the main Emergency Department (ED), (2) an IV Therapy Clinic and, (3) an Emergency Department follow-up clinic. In this study we examined how the hospital, particularly the ED, has performed under this new and innovative model of care.

Methods: A retrospective analysis of select performance measures was used to compare the Strathcona ED to sites of similar size and patient populations. Patient and staff experience of NP care was evaluated using surveys and focus groups. Outcome measures for six dimensions of quality (acceptability, access, appropriateness, efficiency, effectiveness and safety) are reported over a three-year study period.

Outcomes: Integrating NP practice at the site had a positive impact on ED performance and patient outcomes. A reduction in Family Practice Sensitive Conditions was observed; generally minor medical problems that can be appropriately treated in other settings such a Primary Care. Other quality metrics such as wait times, left without treatment, discharges targets, and cost per visit are reported. NP care had a high degree of acceptability and patient satisfaction. A new role of Triage Liaison was introduced to improve patient care, satisfaction and access as evidenced by patients leaving without treatment.

Lessons Learned: Emergency Departments are frequently used for non-emergent care that can be provided appropriately in other settings or by other providers. Nurse Practitioners can address many of the issues experienced by patients presenting to the ED. The NP role was successfully implemented in three care settings, directly impacting ED performance at the Strathcona hospital. Role clarity and a better understanding of the NP scope of practice among patients and providers is necessary for successful implementation. Lessons learned from the Strathcona experience can benefit other areas facing similar challenges in meeting their performance goals for quality and sustainability.





IMPLEMENTATION OF COSTARS: THE ALBERTA EXPERIENCE

Context and relevance: In Alberta, CancerControl Alberta (CCA) is responsible for all aspects of ambulatory cancer care across the province. In a provincial review of CCA's telephone symptom management practice, the use of evidence based symptom management guidelines and documentation of this work was inconsistent. Ambulatory cancer patients primarily experience their side effects at home, and sometimes side effects can become life threatening, it is essential that registered nurses offering telephone symptom management use a consistent and reliable evidence base to guide decision making around triaging symptom severity and recommending management strategies.

Methods: Based on this review, the CCA executive prioritized the integration of the Pan-Canadian Oncology Symptom Triage and Remote Support (COSTaRS) guidelines into the telephone triage practice initial at two large urban cancer centers as. A working group was created, to guide the implementation, with representation from a cross section of stakeholders. The working group informed the development of a revised symptom management documentation tool and participated in usability testing, co-led with AHS Human Factors. The usability testing informed the method for staff training and further refined the tools nurses use for triaging and documenting their patient interactions to ensure they match clinical workflow. We plan to determine our success by conducting a staff survey at 3 and 6 months post implementation, chart reviews to evaluate documentation practices and random reviews of symptom management calls.

Outcomes: The creation of standard provincial documentation and training tools facilitated the integration of these guidelines into practice. This work is shifting our organization towards a culture of evidence informed practice. Patients seeking symptom management support now receive consistent support and advice, with symptom management assessment and interventions visible to the interdisciplinary team in the patient's Electronic Medical Record (EMR).

Lessons Learned: Key lessons learned include: developing new electronic documentation and training tools takes time, but streamlines implementation, and conducting an impact assessment upfront helped identify all stakeholder groups, which also simplified the implementation. Collaboration with both internal and external partners also supported the team's success. Future plans include the integration of the guidelines and documentation tools across all CCA sites.





IMPLEMENTATION OF NEONATAL NEURO-CRITICAL CARE (NNCC) PROGRAM ASSOCIATED WITH IMPROVED SHORT TERM OUTCOMES IN NEONATES WITH MODERATE TO SEVERE HYPOXIC ISCHEMIC ENCEPHALOPATHY (HIE)

Introduction: Despite advances in neonatal care, neonates with moderate to severe HIE are at high risk of mortality and morbidity. The purpose of this report is to demonstrate how a dedicated NNCC team can improve care through management pathways, improved communication, and implementation of quality improvement projects.

Methods: A retrospective cohort study on term and near term neonates with moderate to serve HIE between July 1st 2008 and December 31st 2017. The primary outcome was a composite of death and/or brain injury on MRI. Secondary outcomes were: death, brain injury, rate of cooling, length of hospital stay, anti-seizure medication burden, and use of inotropes. A regression analysis was done adjusting for gestational age, birth weight, gender, out-born status, Apgar score at 10 minutes, cord blood pH, and HIE clinical staging.

Results (table 1):216 neonates were included, 109 before NNCC implementation, and 107 thereafter. NNCC program resulted in a significant reduction in the composite outcome of death or brain injury (AOR: 0.28, Cl: 0.14-0.54, p<0.001) and HIE changes on MRI (AOR: 0.28, Cl: 0.14-0.55, p<0.001). It also resulted in a decreased average length of stay of 5 days/infant (p=0.03), improvement in cooling rate (73% before compared to 93% after, p <0.001), reduction in: seizure misdiagnosis (71% before compared to 23% after, P <0.001), anti-seizure medication burden (P value: 0.001), and inotrope use (34% compared to 53%, p=0.004)

Conclusion:NNCC program further decreased mortality and brain injury , shortened the length of hospital stay and improved care in neonates with moderate to severe HIE.





IMPLEMENTING A NEW DIABETIC ALGORITHM FOR OPHTHALMOLOGY DAY SURGERY PATIENTS AT THE ROYAL ALEXANDRA HOSPITAL (RAH)

Context: Ophthalmology Day Surgery at the Royal Alexandra Hospital (RAH) serves upwards of 40 patients/day. Patients with diabetes mellitus scheduled for eye surgery are tested for glucose levels on the morning of the surgery. All pre-op diabetic patients with high glucose received insulin infusion protocols as part of the regular glucose control in diabetic patients at our institution. Using the insulin infusion protocol was complicated, required a multiple nurse set up and more material supplies and resulted in higher adverse events related to incorrect protocol set ups and caused delays in surgeries.

Problem: Existing insulin infusion pump protocols compromised patient safety and potential, costly operating room delays.

Goal: Developing and implementing a new diabetic algorithm based on best practice to treat diabetic pre-op patients and decrease the patient's preparation time and prevent errors related to management of these patients. Methods: A project team was assembled including Ophthalmologists, Endocrinologists, Anesthesiologists, Professional practice office, Management and Nurses. The team brainstormed a new diabetic algorithm to treat diabetic patients arriving for eye surgery. The new protocol specified the insulin pump protocol only when blood glucose was higher then 20 mmol/L. We implemented a tracking tool with the new algorithm that collected information regarding the effectiveness of the new protocol.

Outcomes: Only 17% of diabetic patients needed the insulin pump after implementing the new protocol which decreased from 100%, thus decreasing the cost, the error rate and the nurses time spent with the patient. Patients were prepared accurately and on time which decreased the amount of stress on the physicians and nurses and greatly improved the diabetic patients experience with our department. After implementing the new protocol there have not been adverse events reported.

Lessons Learned: It was difficult to bring changes to historical policy regarding treatments of diabetic patients and some resistance was felt from the physician groups and the nursing staff. The project team was vital to making this initiative a priority with the hospital. Improving patient safety, flow and hospital experience turned out to be a key motivating factor to successful innovation and implementation.





IMPLEMENTING AND EVALUATING A PATIENT NAVIGATOR SERVICE FOR YOUTH WITH CHRONIC CONDITIONS TRANSITIONING TO ADULT CARE

BACKGROUND: Clinical practice guidelines for transition to adult care recommend use of patient navigators to coordinate patient entry into the adult health care system. Access to a navigator during transition may decrease disease-specific adverse events and non-compliance; additionally, no study to date has evaluated the effectiveness of this intervention across multiple chronic disease settings.

METHOD: We will implement a navigator service across multiple chronic disease settings, delivered from Alberta Children's Hospital. Using a pragmatic randomized control design, the intervention will also be compared to usual care for reducing emergency room visits and improving overall satisfaction with care among adolescents aged 16-21. We defined the navigator intervention, provided by experienced social workers within the health system, as follows: 1) Preparation; educate families about the multifaceted nature of transition, with focus on readiness for transfer. 2) Self-management; using strategies such as motivational interviewing, navigators facilitate development of self-management in patients with complex health needs. 3) Systems broker; facilitate system collaboration to address needs of complex patients, encourage use of primary care/medical home, and develop self-navigation skills. 4) Navigating psychosocial services; address social determinants of health and modifiable barriers to service access within multiple systems. Intervention was developed after extensive stakeholder consultation and interviews with patients and families. Navigators will also use standardized assessments (e.g. SSHADESS) to achieve treatment goals. Fidelity assessments completed by navigators ensure uniform delivery of intervention between sites. Navigators complete a discharge summary to review goal attainment.

RESULTS: We expect that patient navigator intervention will decrease ER/urgent care use among transitioning young adults and improve overall care experience.

CONCLUSION: The Transition Navigator Trial will provide an essential service to youth in Calgary with chronic health conditions. It will also provide research data to guide pediatric and adult health care providers and policy makers regarding optimal transition care.





IMPROVEMENT OF PATIENT CARE WITH THE IMPLEMENTATION OF ADMINISTERING MEDICATIONS BY INTRAVENOUS DIRECT BY LPNS IN THE URGENT CARE DEPARTMENT

The successful improvement of patient care was an unexpected outcome from this QI project that began as a result of a Nation-wide shortage of medication mini-bags due to the devastation of the island of Puerto Rico in September 2017 by hurricane Maria. Clinical departments, including the Urgent Care Center (CUCC) in Cochrane Alberta were challenged to develop innovative ways to deliver medications intravenously without using a mini-bag delivery system for those drugs that could be given an alternate way. While proposing strategies in the CUCC, it was identified that the Licensed Practical Nurses (LPNs) worked to full scope of practice, except for the delivery of medications by intravenous direct or push (IVP). In December, 2008, LPN scope of practice was changed by the College of Licensed Practical Nurses of Alberta (CLPNA) to include IVP medications as an advanced skill and competency but this was not endorsed in the Urgent Care setting even though LPNs work to full scope in all other areas of their practice. If LPNs were certified to administer IVP medications, they could avoid using mini bags or would not have to ask a Registered Nurse (RN) to give the medications, specifically analgesics, to their patients. Our methods included doing a literature search, Value Stream Mapping, certifying LPNs in IVP, creating a competition with newly trained LPNs to encourage them to use IVP route using a visible daily scoreboard, and data-capturing measurable times between mini-bag and IVP delivery of pain medication. The positive outcomes of LPNs certified in the advanced skill of IVP medications were numerous and include: administering medications without using mini-bags (that were under severe shortage), delivering medications more quickly for pain relief or antibiotics, less extra fluid needing to be given in the pediatric or elderly patient, and the ability to titrate medications quickly to get the desired effect of pain control. Challenges included changing the mind-set of leaders and other partners and stakeholders in UCC to support the increased scope of practice for LPNs. Overall this QI project was successful with better than anticipated outcomes.





IMPROVING COLLABORATION AND ACCESS TO REHABILITATION FOR STROKE PATIENTS AT GREY NUNS COMMUNITY HOSPITAL

BACKGROUND: Within Alberta Health Services - Edmonton Zone, significant variability exists regarding access to physicians with expertise in stroke rehabilitation (physiatrists). Assessment by physiatry is required for access to tertiary in-patient stroke rehabilitation at the Glenrose Rehabilitation Hospital (GRH). A need was identified to review the process for initiating assessment by physiatry, and to reduce the variability of consult requests and timing in order to improve patient access to tertiary rehabilitation services.

METHODS: The quality intervention initiated was changing the consultant physiatrist model from reactively attending consultation requests as they came in, to proactively attending acute care Stroke Unit rounds on a weekly basis. Stroke Unit staff were surveyed to measure perceptions regarding this change. Cycle time measures were used to measure changes in assessment times, transfer times, and overall length of stay.

RESULTS: The staff survey yielded a 70% response rate. A significant increase was noted (43% pre, 86% post) in staff confidence to discuss stroke prognosis and recovery with patients and families. Staff perception of timeliness of physiatry assessment increased, from 29% to 71% agreeing that assessments occurred in a timely manner. The median proportion of stroke patients being assessed by physiatry almost doubled, from 17% to 32%, without jeopardizing the time from admission to patients being seen (8.5 days pre, 7.5 days post). Significant improvements were noted in the median time from admission to transfer to GRH (decrease of 9.5 days). The overall stroke unit length of stay (LOS) decreased by 27 patient-days per month, and overall total hospital LOS decreased by 17 patient-days per month.

CONCLUSIONS: The addition of a regularly scheduled physiatrist resulted in significant improvements in staff confidence in communicating with patients and families regarding stroke, and also resulted in more patients being assessed by a stroke rehabilitation specialist. The regular availability of a stroke physiatrist facilitated improved interprofessional communication regarding rehabilitation plans and prognosis, thus resulting in faster access to tertiary rehabilitation and also reducing overall stroke unit length of stay. This project highlights the benefits of considering rehabilitation as a continuum and involving medical expertise in stroke rehabilitation early in patients' journeys.





IMPROVING DATA ENTRY IN A REFERRAL MANAGEMENT SYSTEM

Context/RelevanceOutpatient Surgery Clinic 7A, South Health Campus is a busy office which hosts clinics for General Surgery, Urology, Anorectal, Ear Nose and Throat, Plastics and Urodynamic Testing. We manage the bookings for Ear, Nose and Throat Clinics, and Anorectal Clinics and have a high volume fax machine which has approximately 100 incoming and outgoing faxes per day. A lot of unnecessary time was spent looking for misplaced referrals and calling referring physician offices to resend referrals. The Nurse Clinician conducted an audit of referrals on a waitlist, compared to original referrals and there were many discrepancies. Approximately 10% of 2100 Ear Nose and Throat referrals were either misplaced, not entered into the Millennium scheduler waitlist, missing or not triaged.

Goal: Decrease data entry and filing errors from 10% to 5%, auditing biweekly by December 31, 2017.

Method: The Unit Manager, Nurse Clinician and three clerks participated in the AHS CORE Process Improvement Rapid Improvement Event. We built understanding of the issues and conducted a root cause analysis of the 5 Whys to determine reasons for referral entry errors. We changed the role of the Booking Clerk to assume responsibility for data entry of referrals and had the Reception Clerks assume chart prep duties to balance workload.

Outcome: Post implementation audits were conducted biweekly, and then monthly. Seven post implementation audits have showed a zero percent data entry error with the exception of one error due to misfiling a patient's referral according to surname in Audit 2. When we initiated this project, patient appointments were booked one week prior to their appointment. Ear Nose and Throat appointments are now booked 16 weeks prior to appointment.

Lessons Learned: Although we had reduced the referral entry error rate, the unintended consequence was that the referral entry became backlogged and the clerks' stress levels increased. They conducted another PDSA cycle and blocked two hours per week for referral entry which rectified the problem.In hindsight, we should have included a clerk 3 staff member on our CORE team to involve them more in the project.





IMPROVING DISCHARGE COMMUNICATION "CHANGING OUR APPROACH TO DISCHARGE SUMMARIES:

BACKGROUND: Discharge summaries are a standard communication tool delivering important clinical information from inpatient to ambulatory care providers. At our site, a discharge summary form is completed and faxed to ambulatory providers on the day of discharge. This arrives in advance of a formal discharge summary, which can take 2-6 weeks to reach ambulatory care providers. As such, poor quality discharge forms lead to increased adverse events in patient care after discharge, the need for rehospitalization, and disrupts care continuity. Residents, medical students and nurse practitioners are highly involved in completing inpatient discharge documentation, yet they receive minimal training in how to do so. The project aim is to introduce formal instruction regarding form completion to improve legibility and completeness. METHODS: To define the problem and build understanding of the current process, a systematic quality improvement (QI) approach was used. QI method utilizes tools such as the 5 Whys, cause and effect analysis, force field analysis and process mapping to identify areas of improvement. To determine baseline measurement, a chart audit of the discharge summary form, a survey of clinical teaching unit (CTU) team members (residents, medical students, nurse practitioners), and a family physician survey was completed pre and post intervention. The CTU team was given a power point presentation along with a completed form- job aide focusing on the importance of filling out the forms in an acceptable way. RESULTS: The number of discharge forms filled out acceptably increased from 55% pre-intervention, to 89% post intervention. Specifically, the number of forms with clear follow up increased from 65% to 89%, and the number of forms that outlined who was responsible for the follow up increased from 52% to 84%. The family physician survey reinforced that better communication about a patient's hospitalization is required for continuity of care. CONCLUSIONS: Discharge summary forms are a vital communication bridge between the hospital and a patient's outpatient care team. Education on how to complete this form, and how to optimize its completion results in better patient care and helps minimize gaps in continuity of care.





IMPROVING MEDICATION SAFETY IN HEMODIALYSIS PATIENTS USING INNOVATIVE APPROACHES TO PHARMACY CARE

Context and relevance: Hemodialysis patients are at exceedingly high risk for medication related adverse events. These patients are prescribed many medications per day and have complex regimens due to multimorbidity and dosing issues with dialysis. The ability to effectively perform medication reconciliation (MedRec) is dependent upon a high quality best possible medication history (BPMH). It has been identified that the current dialysis medication lists used as the foundation for the BPMH are not always accurate. The areas determined to have the greatest impact on poor quality BPMH are multiple demands on nurse time, frequent interruptions, limitations of the current tools, and inadequate formal processes and documentation. A baseline MedRec audit was unable to quantify the current state given the lack of process and inconsistent charting locations.

Methods: A pharmacy technician was piloted and assigned the responsibility of implementing and supporting a MedRec process. They were selected as the professional most uniquely qualified because they have the singular responsibility and knowledge to accurately complete a BPMH. The primary outcome was change in BPMH quality determined by MedRec audit form and secondary outcomes looked at staff satisfaction, technician utilization and workload.

Outcomes: The first post-implementation audit reported 80% or greater adherence to all elements except for 'discrepancies resolved, communicated and documented' and 'medication documentation to the patient/caregiver'. Based on this, immediate modifications have been made to the process and the next audit is pending. BPMHs were most commonly performed prior to clinic visits with an average time for preparation, interview and documentation of 23, 16 and 11 minutes respectively.

Lessons Learned: This innovative model has attracted program wide interest in expansion to other hemodialysis units. The addition of a pharmacy technician has promoted the development of an integrated system where the staff can work collectively to provide high quality patient care. Given the time average to complete BPMH, there was also substantial time reallocated to nursing staff. Future directions for the pharmacy technician will focus on extending the pilot and developing strategies to optimize technician utilization and workload.





IMPROVING QUALITY DATA TO SUPPORT OUTPATIENT APPOINTMENT MANAGEMENT IN AMBULATORY NEUROLOGY CLINICS

Since 2014, the Department of Neurology has increased the number of Ambulatory Neurology clinics in Calgary with the addition of 12 clinics, both satellite and independent. With expansion has come great variability in process of clerical staff inputting data into Millennium Scheduler, with corresponding inconsistencies in the quality of extractable data. Management and physicians have struggled with obtaining accurate data including waitlist and no-show data due to variability of data entry processes. The primary goal of the project was to develop standard procedures to support collection of quality data to reliably measure outputs and track improvement measures. A project management team was formed, which collaborated with clinic teams and sought feedback from patients. AHS Improvement Way methodology was used alongside Prosci Change Management methods. Baseline data to analyze data gaps confirmed the suspected inconsistencies in extractable data, sometimes including complete lack of data collection. We focused on reasons for cancellations and no-shows, appointment notification contact with patients, and referral data entry. An appointment management guideline and workflow maps were developed to standardize how data must be entered into Millennium and to enhance communication between the clinic, referral source, and patient. Training sessions were held and 'clinic leaders' were identified to continue training. An audit tool was developed to track adherence to the processes and discover deficiencies in process and knowledge. Staff and patient surveys will indicate if changes are perceived as positive. Complete implementation of the guideline is scheduled for May 1, 2018. Early data indicates improved staff understanding of the reasons quality data entry is required, shows an increase in documenting communication with patients about appointments (increase from 0 -60 patient contact comments documented during the same time frame, 2017 to 2018). Patients and referring physicians will benefit from transparency around appointment management data and processes. Patients will receive improved communication surrounding appointments with opportunities for staff to work with patients to attend appointments, taking equality needs into account. Staff feedback has been positive about introduction of standardized processes. Continued monitoring of adherence to processes will ensure staff accountability and increase patient participation in appointment management.





INSPIRED 2.0 " INTEGRATION BREATHS NEW LIFE INTO COPD CARE"

Context: In Alberta, as in Canada, Chronic Obstructive Pulmonary Disease (COPD) is the leading cause for emergency department visits, acute care admissions and a leading cause of calls to 911. In 2014, the Alberta Health Services (AHS) Edmonton Zone Home Living Program formed the INSPIRED 1.0 Initiative to assist clients living with advanced COPD in their homes in the community. This quality improvement innovation was part of the Canadian Foundation for Healthcare Improvement (CFHI) Pan-Canadian COPD Collaborative modeled on the Halifax INSPIRED COPD Outreach Program. INSPIRED 1.0, created a Complex Respiratory Care pathway referral process to ensure the right team members were linked with clients/families to: conduct assessments, deliver evidence based care, negotiate client-centred COPD action plans, deliver COPD self-management education, discuss advanced care planning/ goals of care designation, and support caregivers. INSPIRED 2.0 is currently scaling up throughout the Edmonton Zone, supporting the AHS vision of Enhancing Care in the Community.

Methods: Stakeholders representing programs and providers from across the continuum of care in Edmonton Zone are collaborating and potentiating their resources to extend their reach to more clients with moderate to severe COPD, thereby improving self-management, quality of life and diminishing transitions to hospitals and emergency department.

Outcome: Optimized care pathways between partners in the INSPIRED 2.0 will ensure clients with advanced COPD can access care and services in their homes, thereby diminishing their reliance upon acute care services. INSPIRED 2.0 will be evaluated through: COPD hospitalizations; Readmissions at 30, 90 and 180 days; ED visits ; Length of Stay ; COPD Action Plans; Care Transitions Measure (CTM-3); COPD assessment test (CAT); Clinical Screener - homebound assessment tool; EQ-5D quality of life assessment

Lessons Learned: Integrated and client-centred health services requires the right balance of standardization and flexibility to ensure teams and organizations can provide timely, effective and efficient care to COPD patients and their families. At a minimum, scaling up innovation requires: excellence in communication, respect of partners, tenacity, change management strategies and executive leadership support.





KAYE EDMONTON CLINIC-PATCH TESTING EVALUATION

BACKGROUND: In patients with suspected allergic contact dermatitis, patch testing is used to confirm the diagnosis and identify what is causing the problem. A variety of substances are applied to the patients' skin to determine if they lead to an allergic reaction. It is important to assess the effectiveness and utility of the patch testing and follow-up education process, which will provide important information about how this process can be improved.METHODS: A follow-up survey was sent to patients who had received patch testing from January 2016 to July 2016. The aim of the survey was to assess patient perceptions about the usefulness of patch testing, and whether the test helped the patient manage their contact dermatitis. In August 2017, 223 patients who showed at least one positive allergen and provided an email address at the time of patch testing were sent an email inviting them to complete an online survey about patch testing. The email provided a hyperlink that took them directly to the survey.RESULTS: Of the 213 patients who received the email, 69 completed the survey. 88.4% of patients stated they would recommend patch testing to friends or family with a similar rash. 92.8% agreed that patch testing helped inform them which substances caused their allergy. However, only 75.4% of respondents believe that patch testing helped them manage their contact allergy. 42% of respondents were able to recall all the substances they were allergic to, and 52.2% of patients could recall some of the substances they were allergic to. CONCLUSIONS: Although the majority of patients found that patch testing helped them manage their contact allergy, there remains opportunity for improvement. Possible interventions suggested by patients were to provide a more detailed list of substances to avoid, have patients bring in more products that they react to for patch testing, formalize follow-up appointments with their referring dermatologist, and develop more user-friendly ways for patients to remember what they are allergic to. To support these suggested interventions (and others), we are undertaking the development of detailed referral guidelines for patch testing that will be accessible to all referring dermatologists.





LATENT TUBERCULOSIS MANAGEMENT FOR DIALYSIS PATIENTS IN THE SOUTHERN ALBERTA RENAL PROGRAM: A LOCAL GAP IN CARE

Context and Relevance: Hemodialysis patients with latent tuberculosis infection (LTBI) are at high risk for developing active tuberculosis. Patients with active tuberculosis are at risk for morbidity, mortality, and can infect other dialysis patients and healthcare workers. National and international guidelines recommend LTBI testing and treatment for hemodialysis patients to reduce the risk of developing active tuberculosis. The Southern Alberta Renal Program does not have a LTBI management program and patients are not routinely tested. A chart review demonstrated appropriate LTBI screening was performed in less than 50% of hemodialysis patients. Additionally, staff surveys revealed that health providers lacked awareness about LTBI management. Our project aims to develop, test, and implement a LTBI management program and ultimately increase the LTBI screening rate of hemodialysis patients in the renal program.

Methods: Our project is a collaborative effort between the renal program and the Calgary Tuberculosis clinic. Early work revealed a process for LTBI screening did not exist and therefore analogous screening processes that could be applied to LTBI screening in HD patients were also analyzed (LTBI in pre-renal transplant and hepatitis B in hemodialysis). Difficulty attending appointments outside of hemodialysis because of transportation requirements and limited time outside of their dialysis was identified as a potential barrier for patients. The proposed model of care will address this barrier by providing LTBI screening, preliminary education, dispensing of medications, and follow up care on the hemodialysis units. Staff will receive training for LTBI screening and management so they can support the new model of care.

Outcomes: Implementation of the new model has the potential to reduce patient barriers for obtaining the proper LTBI screening and treatment. This will reduce the number of patients at risk for developing active tuberculosis. Staff knowledge and skills in this area will also improve.

Lessons Learned: We were challenged with developing a management process from scratch. Analyzing analogous processes was helpful to determine what worked and what didn't work for our population. Facilitating the required training with limited funds was another major challenge. By thinking outside the box we planned a 'train-the-trainer' approach to achieve this.





LEARNING + PARTNERSHIP = IMPROVED OUTCOMESEXCITEMENT AND CHALLENGES IN STANDARDIZING SERVICES FOR CHILDREN WITH APRAXIA OF SPEECH

AHS speech-language pathologists (SLPs) report discomfort with their level of knowledge, skill and support to provide quality intervention for children with suspected or confirmed Childhood Apraxia of Speech(CAS). At he same time, implementing province wide expectations for service delivery is new and transformational for SLPs.Childhood Apraxia of Speech is rare – affecting an estimated 3-5% of preschoolers with speech disorders. Current practices and partnerships are widely varied across AHS and CAS is often misdiagnosed. Children with CAS have difficulty planning and producing the highly refined and specific series of movements necessary for speech. They may experience challenges with social development, expressive language, literacy, mental health, and behaviour; they may require special academic support, have trouble interacting with others, experience frustration, and lack confidence in communicating. CAS has significant impact for children, families, and service providers. A standardized service aims to set the bar how a service is provided. Evidence informed practices such as dynamic assessment and more intensive, early intervention will improve outcomes before children develop compensatory patterns that complicate and prolong service needs. Clinicians, professional practice and operational leaders are working together to improve outcomes for children and increase the efficacy of available resources through consistent application of evidence. Together they are building skills and system support for intervention. For families and service partners, this means an opportunity to be more involved in decision making, learning, practice and monitoring outcomes. For SLPs this means agreeing on a practice approach, shifting priorities, and participating in self-reflection and continuous learning; it means working more closely with families and building strategic partnerships. For professional practice and operational leaders, this means creating synergy to transform services, embracing a provincial approach, employing change leadership, building on existing leadership and expertise, succession planning, fostering creative partnerships and supporting clinician participation. We are implementing a three tiered approach to SLP competency development and sustainability that includes independent learning, consultation, online learning resources and modules, training for advanced competence, peer referencing and a CAS community of practice. SLPs will access evidence-informed learning modules from a contracted agency, develop hubs of expertise, provide mentoring, and build communities of practice.





LEARNING FROM FAILURES " A FOCUS ON HEALTHCARE ACQUIRED INFECTIONS"

Leveraging its vast database of healthcare liability and property claims, a not-for-profit insurance provider developed the Risk Assessment Checklists (RAC) program, a web-based self-assessment tool enabling healthcare organizations to systematically self-assess compliance with a number of actionable mitigation strategies for top risks leading to medical malpractice claims. With the aim of improving patient safety and decreasing claims, the tool assists organizations with identifying and prioritizing areas of improvement. Identified as No. 5 on the ranked list for high-cost risks in the Acute Care sector is Healthcare Acquired Infections (HAIs), infections that are acquired during the delivery of health which is a significant safety issue. Multiple factors increase the risk of HAIs such as advancing age, underlying immunosuppression, complex treatment modalities, and length of procedures, length of stay and an increasing prevalence of antibiotic-resistant organisms. An extensive review of claims was conducted to develop a ranked list of high-cost risks for each healthcare sector; these lists were disseminated to help organizations prioritize risks. The top 10 most impactful mitigation strategies for each risk were then incorporated into a risk module for the RAC program. Over a three year cycle organizations complete or update the same set of risk modules with the benefit of tracking changes over time using compliance scores. In terms of outcomes, the mitigation strategies for the risk, Healthcare Acquired Infections scored astoundingly high. In Year 3, the lowest score identified was 88% for, 'Ensure appropriate spacing of chairs and stations within the hemodialysis clinic' and Years 1 to 3 improvement +12.82%. The data verifies that quality improvement initiatives to decrease Healthcare Acquired Infections have been embedded into the culture. Formal and coordinated IPAC programs, environmental services, medical device reprocessing, decontamination and sterilization and surveillance and staff compliance at the bedside with routine infection control practices (e.g. hand washing) are key factors in managing this risk. Organizations completing the RAC program are able to benefit from a streamlined approach to selfassessing and prioritizing top risks that have the biggest impact on patient harm and claims. It has increased staff engagement in risk management and patient safety conversations.





LEARNING FROM FAILURES " A FOCUS ON OBSTETRICAL SAFETY"

Leveraging its vast database of healthcare liability and property claims, a not-for-profit insurance provider developed the Risk Assessment Checklists (RAC) program in 2011, a web-based self-assessment tool enabling healthcare organizations to systematically self-assess compliance with a number of actionable mitigation strategies for top risks leading to medical malpractice claims. Identified as No. 1, 2, 3 and 11 on the ranked list for high-cost risks in the acute care sector is Failure to interpret/respond to abnormal fetal status, Failure to monitor fetal status, Mismanagement of induction/augmentation medications and Failure to communicate fetal status. An extensive review of claims was conducted to develop a ranked list of high-cost risks for each healthcare sector; these lists were disseminated to help organizations prioritize risks. The top 10 most impactful mitigation strategies for each risk were then incorporated into a risk module for the RAC program. The RAC program follows a three-year cycle. Each year, organizations complete or update the same set of risk modules with the benefit of tracking changes over time using compliance scores. Within the acute care sector, the following results were observed (n= 55 organizations) over three years for each of the modules: Failure to communicate fetal status improved from a compliance score of 77 to 88, Failure to interpret/respond to abnormal fetal status improved from 87 to 94, Failure to monitor fetal status improved from 82 to 92, and Mismanagement of induction/augmentation medication improved from 83 to 92. Participating organizations are doing well in mitigating some of the risk in obstetrics, but more could be done. Failure to communicate fetal status had the most improvement over the three year process. Lowest scoring theme across the four obstetrical modules related to monitoring and measuring compliance with local hospital policy/procedure. Monitoring physician attendance/response time to requests for consults, attendance and deliveries was another lower scoring strategy in Year 3. Organizations completing the RAC program are able to benefit from a streamlined approach to self-assessing and prioritizing top risks that have the biggest impact on patient harm and claims. It has increased staff engagement in risk management and patient safety conversations.





LEARNING FROM FAILURES " FAILURE TO PROVIDE ADEQUATE DISCHARGE/FOLLOW-UP INSTRUCTIONS"

Leveraging its vast database of healthcare liability and property claims, a not-for-profit insurance provider developed the Risk Assessment Checklists (RAC) program, a web-based self-assessment tool enabling healthcare organizations to systematically self-assess compliance with a number of actionable mitigation strategies for top risks leading to medical malpractice claims. With the aim of improving patient safety and decreasing claims, the tool assists organizations with identifying and prioritizing areas of improvement. Identified as No. 23 on the ranked list for high-cost risks in the Acute Care sector is Failure to Provide Adequate Discharge/Follow-up Instructions. Poorly designed and executed discharge processes, lack of timely follow-up on outstanding test results received post-discharge and poor communication between hospital staff, patients, families and primary care practitioners can contribute to avoidable patient safety incidents and hospital readmissions. An extensive review of claims was conducted to develop a ranked list of high-cost risks for each healthcare sector; these lists were disseminated to help organizations prioritize risks. The top 10 most impactful mitigation strategies for each risk were then incorporated into a risk module for the RAC program. Over a three year cycle organizations complete or update the same set of risk modules with the benefit of tracking changes over time using compliance scores. In terms of outcomes, three mitigation strategies with the largest improvement from Years 1 to 3 include 'Monitor adherence to the discharge practice/guideline through scheduled health record reviews'(+44.74%), 'Implement a discharge checklist that prompts and documents the completion of tasks related to discharge' (+15.79%), and 'Ensure comprehensive, written discharge instructions are provided in plain language (use interpreters and translations as required) to patients/families at discharge'(+14.29%).Organizations are well on their way to mitigating the risk of inadequate patient discharge/follow-up instructions. Effective discharge processes and timely, comprehensive, language, appropriate and written discharge/follow-up instructions will support the patient's transition out of hospital. Organizations completing the RAC program are able to benefit from a streamlined approach to self-assessing and prioritizing top risks that have the biggest impact on patient harm and claims. It has increased staff engagement in risk management and patient safety conversations.





LINE OPTIMIZATION OR PROJECT: CLOSING THE LOOP ON SAFE CENTRAL LINE INSERTION IN THE OPERATING ROOM AT ALBERTA CHILDREN'S HOSPITAL

Background: About 1000 central venous lines are placed at Alberta Children's Hospital (ACH) each year, enabling stable venous access for patient care. The benefits of central lines are balanced by potential complications. Catheter associated bloodstream infections (CABSI) result in patient morbidity and mortality and require resource-intensive treatment. Line placement complications such as placement or migration too near or into the heart can result in devastating patient adverse events. At ACH, three serious line placement complication adverse events occurred from 2013-2017. Line placements in the Operating Room (OR) are not standardized or audited. SPSTM (Solutions for Patient Safety) is being adopted at ACH and includes evidence based line insertion bundles to prevent CABSI and a process for ongoing auditing and reporting.

Methods: An ACH LOOP committee and OR champions: Engaged OR line insertion physicians and staff through surveys, information sessions and line insertion education events. Developed a CHECKLIST for line insertion with evidence based elements for line insertion, tip placement confirmation and electronic recording of line insertion. Audited line insertion elements pre and post implementation of the checklist.

Conducted PDSA cycles to improve insertion practice and refine the checklist. Created SPS K-CARDs to be used for ongoing audits within the SPS project.

Outcomes: Implementation of the Line Insertion Checklist- Increased the number of line placements 100% compliant with ALL SPS and tip placement line insertion elements from 54% to 80%. One commonly missed element is currently being addressed with an aim to reach the project goal: 95% of lines compliant with all checklist elements. Line insertion tip placement best practice including imaging for tip location at the time of placement has become the standard practice in the OR: 99% tip confirmation. No line tip placement adverse events for 15 months. Goal = 5 years. Line placement is consistently documented in the electronic health record which is essential for line complication rate tracking and reporting. The work from this project will be sustained through the SPS Initiative at ACH called 'Safest Together' and expanded to standardize and audit all ACH site line insertions and line maintenance across the site.





LPNS IN AHS'S EMERGENCY DEPARTMENTS, MENTAL HEALTH UNITS, AND LABOUR & DELIVERY UNITS: RECOMMENDATIONS TO IMPROVE LPN OPTIMIZATION

Context and Relevance: In 2003, Licensed Practical Nurses (LPNs) became the first health profession to be governed under Alberta's Health Professions Act. Then, in 2007, LPNs faced another notable shift, when the LPN education changed from a one-year certificate to a two-year diploma. In 2015, the College of Licenced Practical Nurses of Alberta (CLPNA) published the third edition of the LPN Competency Profile outlining approved competencies for Alberta LPNs. This document outlines the knowledge, skills, and abilities Alberta's LPNs attain in their base nursing program. Despite this, previous research has shown that factors related to individual competencies, unit level decision making, and organizational policy have limited the optimization of LPNs.

Methods: Knowing the potential barriers impacting LPNs' scope, we set out to understand the utilization and optimization of LPNs in Emergency Departments, Mental Health, and Labour & Delivery units. In phase one we explored the distribution across Alberta using quantitative data, while in phase two we used a qualitative approach to investigate why decisions were made to utilize LPNs on those units.

OutcomesThe results informed two sets of recommendations: the first was directed towards policy-level decision makers at AHS and the CLPNA. The second was developed for site- and unit-level managers and frontline employees. The recommendations primarily address the most common barrier to LPNs working to optimal scope: actually understanding what LPNs are able to do.

Lessons Learned: Our results have been shared with AHS and CLPNA leaders, and work has begun to address these recommendations. To ensure impact of this work, we need to continue to share it with policy-makers, leaders, managers, and healthcare providers who can implement changes and make meaningful improvements to Alberta's health system. At the Quality Summit, we will highlight a strategy to optimize LPN practice in Emergency Departments, Mental Health, and Labour & Delivery units, as well as other areas of practice. Furthermore, we will showcase the CLPNA's LPN Scope of Practice Decision Making Tool and an interpretive document clarifying LPNs' legal authority, education requirements, supervision, and teaching required to perform the LPN authorized restricted activities, both developed in response to the recommendations.





MEALTIME COMPANIONSHIP PROGRAM AT THE UNIVERSITY OF ALBERTA HOSPITAL: A STUDY ON THE VIEWS OF PATIENTS, VOLUNTEERS, HEALTH CARE PROVIDERS, AND RELEVANT STAKEHOLDERS BACKGROUND: The Project Team evaluated the Mealtime Companionship Pilot Program in two orthopedics department at the University of Alberta Hospital (UAH). Using various quality improvement (QI) methodologies, we described the strengths of Mealtime Companionship Program, identified any concerns surrounding the new initiative, and suggest how these problems will be resolved through improvements and expansion of the companionship service in the future.

METHODS: Through walking the Gemba, gathering the Voice of Customer, and developing a Process Map, several areas for improvements were identified. All data were further processed through SWOT analysis, which allowed the QI team to focus on three areas of improvement: the use of communication binder, the environment of the dining area, and the expansion of the companionship program to include a volunteer led feeding service. A photovoice poster was developed to capture the impact that the program is making at the patient-care level. This poster was displayed on the unit to inspire and motivate all unit staff to manage positive changes to further improve the Mealtime Companionship Program.

RESULTS: The challenges mentioned above were resolved through a team collaboration between the Project Lead, a QI Consultant, UAH Operational Leader, Unit Managers, Director of Director Nutritional Services, and the Coordinator for the Volunteer Resource Centre. The Director Nutritional Services highlighted the importance of regular review and sign off of the communication binder with dietitians involved on the units. The checked off rate has increased from 7.5% to 79% post intervention in the orthopedic units. Unit managers, frontline staff, and volunteers were all involved in improving the environment of dining area, which now provides a more inviting atmosphere. The QI team plans to form a committee composed of relevant stakeholders to expand the Volunteers role to include a feeding services to the program.

CONCLUSIONS: Both care providers and patients enjoy participating in the newly improved Mealtime Companionship Program. With an efficient reallocation of available resources and the nurturing of a supportive team atmosphere, the Mealtime Companionship Pilot Program successfully deliverers familycentered care to patients staying in the orthopedic units at the UAH.





MEASURING AND REDUCING INPATIENT ADVERSE EVENTS ON CALGARY MEDICAL TEACHING UNITS

Context and Relevance: A Canadian Institute of Health Information (CIHI) report identified that one in 18 hospitalized Canadians experience an adverse event (AE), of which 40% may be preventable. Patients with multiple medical issues admitted to teaching settings have the highest rates of AEs.Based on this information, we identified that medical teaching units (MTUs) are at increased risk for AEs as they are teaching settings that care for complex medical patients. We reviewed patient safety literature for interventions that address inpatient AEs. Checklist interventions have been shown to improve adherence to best practices while reducing errors in surgical patients.

Methods:We designed a Patient Safety Checklist Sticker (PSCS) for use by trainees to improve the daily risk assessment process. We selected the five most common AEs that affect medical inpatients using data from CIHI, and created reminders to prevent these AEs.The PSCS underwent human factors analysis and three design cycles since implementation in response to survey feedback from residents, medical students, nurses, and allied health professionals who work on the MTU. We monitor usage of the PSCS with chart audits. We track rates of AEs using the electronic medical record (EMR) to create run charts comparing the 18 months pre-implementation to 8 months post-implementation at the intervention site and three non-intervention sites. The AE rates from the EMR were validated by a chart audit.

Outcomes:Surveys demonstrate that trainees, registered nurses and allied health professionals have increased awareness of patient safety. Chart audits demonstrate usage of the PSCS ranging from 30-60%. Time series analysis of hypoglycemia rates, antibiotic associated diarrhea, and diet orders have demonstrated non-significant improvement. Time series analysis of venous thromboembolism prophylaxis did not demonstrate improvement.

Lessons Learned:Our primary success has been raising awareness of patient safety on MTUs. The MTU nursing staff have voluntarily become our PSCS champions. Nursing staff from other patient units have started implementing the PSCS. AE rates have dropped in all four MTUs in Calgary since implementation of the PSCS, suggesting a broader awareness of patient safety among trainees. We are working to improve PSCS usage by identifying physician champions.





MY CHOICE, MY CARE " IMPROVING PATIENT TRANSITION TO DIALYSIS"

Context and Relevance:Patients requiring dialysis, the lifesaving treatment for kidney disease, are treated with facility-based or home-based dialysis. When comparing these two modalities, home therapies are associated with improved patient quality of life, better clinical outcomes and lower hospitalization rates. Despite significant clinical and economic benefits, home therapies are underutilized. Last year, 71% of Calgary patients requiring dialysis were treated at facility-based dialysis units. In a study identifying the top patient concerns related to managing kidney failure, lack of education and involvement in dialysis therapy selection were identified. We propose patients initiate dialysis in a patient centered transition unit, the My Choice Unit, to maximize safe and effective use of home dialysis therapies.

Methods: The project team partnered with the Design Lab to run empathy mapping sessions with patients, families, and staff. Sessions focused on the patients' experiences when transitioning to dialysis. Patient interviews were also conducted through the local patient support group. A final report summarized the challenges with the current process. Suggestions for improvement were: 1) More emotional support during transition 2) Patient involvement in the design of resources to ensure content meets their needs 3) Improved communication between patients and clinicians

Outcomes: The My Choice Unit will improve patient satisfaction and quality of care by supporting them with resources (i.e. written material, access to a multidisciplinary team) to choose the modality of dialysis therapy that meets their individual needs.

Lessons Learned: Patient involvement is crucial to identifying key issues in the current transition process. Patients with the support of the project team are developing a new process and model of care that will be used in the My Choice Unit. The Design Lab will support the pilot through rapid improvement cycles.





NEONATAL NEURO-CRITICAL CARE PROGRAM : THE DRIVE TO ZERO PROJECT

Introduction: Extremely premature infants are at high risk for mortality and or suffering brain injury. The etiology of neonatal brain injury is multifactorial and therefore unlikely to be significantly modified by single-intervention strategies. This study evaluates the effect of using concurrent multisystem strategies, using a neuroprotection care bundle approach, aimed at minimizing neonatal brain injury.

Methods: A retrospective cohort study of infants born <29 weeks gestational age (GA) between January 2013 and June 2017. Components of the neuroprotection care bundle were incorporated based on local evidence and national site visits. The primary outcome was composite of death and or severe brain injury on head ultrasound, reviewed blindly by a neuroradiologist, using a standard classification system. Severe brain injury was defined as the presence of any: grade III or IV Intraventricular Hemorrhage (IVH), post IVH porencephalic cyst, cystic periventricular leukomalacia (PVL), or moderate to severe post hemorrhagic ventricular dilatation (PHVD). A regression analysis was done adjusting for GA, birth weight, out-born status, gender, use of antenatal corticosteroids, mode of delivery, multiples, low Apgar score at 5 minutes, and early onset sepsis.

Results: A total of 568 infants born < 29 weeks gestational age (GA) were included, 333 infants before and 235 after the bundle. Basic characteristics is shown in table 1. The implementation of the neuroprotection bundle improved systems targeted management (table 2) and contributed to a significant reduction in death and or severe brain injury (AOR: 0.38, Cl: 0.19-0.74, p = 0.004), mortality (AOR: 0.20, Cl: 0.06-0.65, p = 0.007), severe brain injury (AOR: 0.45, Cl: 0.22-0.94, p = 0.03). Brain injury of any grade was not statistically significant (AOR: 0.63, Cl: 0.39-1.03, p = 0.06)

Conclusion: The adoption of a Neuroprotection care bundle in our center contributed to significant reduction in death and or severe brain injury in extremely premature infants.





NEW STORIES FROM OLD DATA: VISUALIZING ADDICTION AND MENTAL HEALTH DIAGNOSIS DATA

Context and Relevance: Reporting information about the number of patients with a specific diagnosis is easy, but it doesn't tell a very meaningful story. However, we have a lot of data that can tell a meaningful story if it is used properly. We therefore endeavored to use data we already have to better understand the unique treatment needs of Addiction and Mental Health (AMH) patients.

Methods: Our first step was to better understand the data we have, explore its potential, and determine what it can tell us. We then obtained a license for Tableau, which allowed us to visualize our data in new ways that were previously not possible. We constructed a dashboard visualization that associates different mental health diagnoses with the number of resources required for treatment (i.e., clinical care hours and number of client and clinician interactions). The resulting product was a clear of visualization that allows us to distinguish intensive diagnoses from less resource intensive diagnoses.

Outcomes: Understanding the unique needs of patients (i.e., intensiveness of required treatment) can help clinicians with treatment planning and patient-centered care. For example, our data show us that patients with paranoid schizophrenia not only require a typical hour-long treatment sessions, but also a large number of micro treatment sessions that are characterized by (1) a short duration that (2) takes place over the phone. With this knowledge, clinicians may be able to better engage and treat their patients by asking questions like: 'Do you need reminder phone calls for your appointments?' and 'Can I help you develop skills so you don't need reminders for your appointments?'

Lessons Learned: Our dashboards have sparked aha moments and often generated more questions than answers. For example, our assumption is that micro interactions taking place over the phone may indicate reminders for appointments, but we don't know this for sure. We therefore need to work with clinicians and patients to better understand the nuances of treating specific diagnoses. Our data has started the story, but we need to collaborate with others for it to continue.




NO APPARENT HARM? WE CAN DO BETTER!

To err is human. When things go seriously wrong we take notice, organizational resources are deployed and we are interested in learning how we can change our working environment to prevent tragedy from happening again. But what about events where no harm occurred? The majority of Reporting and Learning System (RLS) reports are classified as 'No Apparent Harm' meaning the impact to the patient is not symptomatic and no treatment is required. It is not always obvious how to fix them and it is difficult to justify resources to fix an event in isolation when no harm occurred. Often these reports are simply shared and closed with no changes to the workplace environment. At the Tom Baker Cancer Centre we were aware of a sporadic error trend occurring in one of our radiation treatment techniques. The error rate was 0.3% but over a five year period, 82 RLS reports were filed. Although all of these reports were classified as 'No Apparent Harm' we knew there was an emotional impact to both patients and staff. Our goal was to study the human error pattern and see if we could come up with resource friendly solutions. We engaged two Radiation Therapy U of A students to help us design and execute a methodology for studying the error pattern, approached AHS Human Factors for an expert consultant and asked our TBCC librarian to assist on literature review. This team analyzed the RLS reports, created 8 theme bins, facilitated staff focus groups and researched solutions from healthcare and other industries. All solutions were graded against the Hierarchy of Effectiveness as well as a priority matrix. Plans to implement the solutions are currently in progress. We learned that addressing error causative factors in low harm scenarios can improve patient care, support staff in changing environmental conditions and provide an opportunity to learn about error management without dealing with the stress of a serious event. The framework we used can be easily applied to other scenarios and provides an excellent opportunity for addressing RLS 'No Apparent Harm' trends.





OCCUPATIONAL THERAPY ROLE IN DIAGNOSIS OF AUTISM SPECTRUM DISORDER: AN EXAMPLE OF SUCCESSFUL IMPLEMENTATION USING NATIONAL IMPLEMENTATION RESEARCH NETWORK FRAMEWORK

Context and Relevance: Multidisciplinary team assessment is the gold standard for diagnosis of Autism Spectrum Disorder (ASD). To support accurate diagnosis of children it is essential that each professional adhere to evidence informed practices when contributing to a team based diagnosis. Our quality improvement project aimed to standardize the assessment approach of pediatric occupational therapists (OTs). Through a review of the literature, guidelines, and current practice we determined that OTs make unique contributions to the assessment of ASD in the areas of: sensory, play/participation, and adaptive functioning.

Methods: The National Implementation Research Network (NIRN) framework (Fixsen et al., 2005) guided the identification, planning, implementation and evaluation of evidence informed practice guidelines. 'Practice profiles' defined the changes in OT practice and the NIRN 'stages of implementation' tool was used to guide the implementation. Chart audits before, 6 and 12 months post implementation evaluated the success of the implementation.

Outcomes: Based on pre-evaluation chart audits, OTs most frequently assessed sensory components using a standardized assessment tool but rarely assessed play/participation or adaptive functioning in a standardized manner. The new practice guidelines introduced new standardized assessments for assessing adaptive functioning and participation and formalized interviews for evaluating sensory, adaptive functioning and play/participation. The new guidelines represented a significant shift in clinical practice for OTs involved in assessment of ASD. Chart audits, 6 and 12 month post-implementation, indicated increasingly successful adoption of the new guidelines, particularly in the areas of adaptive functioning (increasing from 52.4% to 85% adoption) and play/participation (increasing from 9.5% to 65% adoption).

Lessons Learned: NIRN 'practice profiles' provided clear definition of expectations and included ideal, acceptable and unacceptable standards. This was key to successful implementation as it facilitated clear communication of the new guidelines for practice and afforded some flexibility for therapists while they worked to embrace change. The 'stages of implementation' proactively addressed barriers to implementation, making it easier for therapists to perform new duties. On-going evaluation is planned for 24 months post implementation to determine if uptake is sustained.





OPTIMIZING PROVINCIAL RECTAL CANCER CARE AND TREATMENT

Context and Relevance: While some rectal cancer patients in Alberta receive excellent care, local recurrence rates of rectal cancer are higher than what is accepted as standard of care. Rectal cancer requires multidisciplinary care from surgeons, radiologists, pathologists, and oncologists. Variations in the cancer treatment may result in variations in treatment outcomes. This project aimed to reduce variations in rectal cancer care delivery and improve outcomes through implementation of a provincial evidence-based clinical pathway, including pre-operative staging, surgical techniques and pathological grading, neoadjuvant and adjuvant therapies, and reporting.

Methods:Standards of care, quality improvement (QI) metrics and an evidence-based rectal cancer clinical pathway were identified by multidisciplinary physicians with expertise in rectal cancer care. Corresponding data were collected and analyzed based on chart reviews and Alberta Cancer Registry for the 2013-2017 period. Evidence-based QI knowledge were transferred to the rectal cancer physician community through provincial discipline specific and individual physician feedback reports. CancerControl Alberta and Cancer Strategic Clinical Network collaborated in collecting and analyzing data as well as mobilizing physicians in provincial QI efforts.

Outcomes:A set of QI metrics for creating feedback reports to rectal cancer physicians were reviewed by key opinion leaders (KOLs). The set includes 24 QI metrics for radiologists, pathologists, oncologists, and surgeons. To date, 32 rectal cancer surgeons in Alberta have received their individual feedback reports. For other groups of physicians (i.e., radiologists, pathologists, and oncologists), reports are being finalized with input from KOLs. Main QI outcomes between 2013 and 2016 include increases in pre-operative Magnetic Resonance Imaging (MRIs) for curative resections (+25%), completeness of synoptic MRI reports for pre-operative MRIs (+23%), and grade 3 Total Mesorectal Excision (TME) of curative resections (+9%), and neoadjuvant therapy in appropriate Stage II/III patients (+26%).

Lessons Learned: A system for continuing evidence-based feedback reports will increase uptake of best practice multidisciplinary care, enable the Alberta rectal cancer community to sustain results, and enhance excellence in quality of rectal cancer care and outcomes. We recommend ongoing annual distribution of the evidence-based feedback reports to the rectal cancer physician community, and consider adaptation as a model for other tumour groups.





OPTIMIZING THE USE OF GASTROSCOPY IN OTHERWISE HEALTHY PATIENTS WITH DYSPEPSIA

Context: Dyspepsia occurs in 20% of the population. Choosing Wisely Canada advises against the use of esophagogastroduodenoscopy (EGD) in dyspeptic patients less than 55 years without alarm symptoms as clinically significant findings are rare. To encourage reflection on this opportunity and to optimize EGD usage, the Physician Learning Program (PLP) and the GI Division collaborated on a project that offered physicians: 1. Education on dyspepsia guidelines to help align practice with the current standards; 2.

Individual and peer comparator data reports on their low yield EGDs;3. A facilitated group discussion on barriers and facilitators to changing practice.

Methods: We evaluated EGD reports and pathology for procedures performed in Calgary (April 1-June 30 in 2015, 2016, and 2017). Low yield EGDs were identified using a combination of administrative data and input from content experts. Division physicians consented to receive individual reports and to participate in an audit & feedback session in March 2018.

Outcomes :Over the 9 month period, 1,358 of the 12,184 EGDs evaluated were performed to investigate dyspepsia in patients less than 55 years. We found that 514 (38%) were low yield. Only 10 patients (2%) had significant findings, none of which were malignancies. Data analysis identified significant practice variation (IQR 20% - 50%). Patient impact: By decreasing low yield EGDs, increased capacity for other urgent endoscopies will improve access. Analysis confirmed the low risk of a clinically significant finding in the cohort, thus patients can feel re-assured that no harm will come from avoiding an EGD. Provider outcomes:Of the 18 physicians (80% of the division) who completed an evaluation:-88% agreed that the report helped them to reflect on their practice;-100% agreed that the peer comparison was valuable;-100% agreed that the information was useful.

Lessons Learned: Co-designing the program with GI physicians and champions strengthened the criteria for low yield EGDs and aligned the report content with physician needs. Including Family GPs and patients perspectives would be valuable to the group discussion.Next Steps:Re-pulling data from a 3-month period in 2018 to see if there have been fewer low yield EGDs performed.





PACES (PALLIATIVE CARE EARLY & SYSTEMATIC): IDENTIFYING BARRIERS AND GAPS TO EARLY PALLIATIVE CARE FOR ADVANCED COLORECTAL CANCER PATIENTS IN ALBERTA

Context and Relevance: Earlier palliative care (> 3 months before death) improves patient outcomes. In Alberta, the first contact with palliative care services for 60% of metastatic colorectal patients is less than 3 months before death. The PaCES team is embarking on an evidence-based implementation project to build an early palliative care pathway for Albertans. Analyzing the current state revealed the gaps and barriers that fragments care and hinders an earlier palliative approach.

Methods: Several process mapping sessions with stakeholder representation from Palliative Care (Home Care, Consult team, Inpatient Unit, Hospice), Medical and Radiation Oncology, Psychosocial and Family Medicine, as well as patient and family advisers in Calgary occurred to understand complexities of instituting a palliative approach and connecting a patient to palliative care services. Groups validated the maps and used this opportunity to discuss the over 100 'pain points' identified. Affinity analysis of these 'pain points' recognized recurring themes, and created 7 problem statements. Fishbone diagrams were used for root cause analysis of the problems statements. Categories included provider, patient, supervisor/administrative, supplies/equipment/resources, culture, process/transactions, documentation systems, and rules/policies/guidelines. Stakeholders brainstormed solutions for the 26 causes identified. The PaCES Team offered multiple formats for brainstorming solutions (drop-in meetings, online survey, and individual or team meetings) which generated 700 individual comments.

Outcomes: After sorting through the raw solutions with change management experts, 136 actionable solutions were ranked in a priority matrix for an improved future state. A large portion of solutions fell into the major projects category, however initial solutions were prioritized to Quick Wins and Gems. To ensure sustainability, solutions will be embedded into practice, have quality assurance standards, and measured for change. We created visibility of the project through stakeholder engagement. This visibility allowed for leveraging work of other teams and partnerships with their initiatives.

Lessons LearnedUsing process improvement strategies assists in identifying why complex care becomes fragmented. By bringing individual teams together we provided an opportunity for collaboration and devised solutions for an improved future state. We overcame the difficulties in engaging an extremely large group of stakeholders through constant and flexible methods of providing feedback.





PAIN MANAGEMENT AND OPIOID USE IN PEDIATRIC ORTHOPEDIC SURGERY

Background:Orthopedic procedures are associated with significant postoperative pain after hospital discharge. With more outpatient surgeries and early hospital discharge, post-operative pain in children is increasingly managed at home. The national opioid crisis has brought attention to over-prescription of post-operative opioids; however, many studies report that many children receive inadequate analgesia after orthopedic injuries. Insufficient treatment can lead to families seeking pain management elsewhere and unrelieved postoperative pain causes unnecessary morbidity and hospital readmissions. An improved understanding of the pain experience of patients after orthopedic surgery will facilitate care plans to better treat pediatric postoperative pain and may reduce unnecessary opioid prescriptions.

Methods:We performed a prospective study of patients 3 months to 17 years undergoing orthopedic surgery at the Alberta Children's Hospital from March to October 2017. Telephone and email surveys were performed within 48 hours of discharge using validated pain scores (PPPM, FACES-R, and NRS), assessing medications administered, and a subjective evaluation of discharge teaching. Our results are those obtained at a six-month audit.

Results:158 patients [50% female] were enrolled and analyzed. 33% of patients (24% upper limb, 42% lower limb) were discharged with opioids, NSAIDs and/or acetaminophen. There was no association between surgery type, pain medication provided at discharge (opioid vs. no opioid) and FACES-R pain score measurement post-op (P = 0.147 to 1.00). Adequate pain control was reported by 86% and 96% of patients > 12 years old at 24 and 48 hours post-op. No association between discharge medication and adequacy of pain control was found for upper limb (P = 0.200) or lower limb (P = 0.365; P = 1.00) procedures. All upper limb patients reported adequate pain control at 48 hours. Median highest NRS pain scores reported at 24 and 48 hours post-op in lower limb surgery patients > 12 years were not significantly different for patients on opioid vs. no opioid regimens [(5.0 (IQR = 3.0 to 7.0) opioids; 5.0 (IQR = 2.5 to 7.5) no opioids; P = 0.758] and [5.0 (IQR = 3.0 to 7.0) opioids; 3.0 (IQR 1.5 to 4.5) no opioids; P = 0.581], respectively.

Conclusions:Opioids after pediatric orthopedic surgery may not be necessary for many surgical procedures. Further subgroup analyses of our larger anticipated study population may identify procedures requiring opioids. Fewer opioid prescriptions after surgery will decrease morbidity due to side effects and decrease the opioid availability for abuse in the community.





PARENTS + PLAY = POTENTIAL

Idea: Premature birth often results in developmental delay. Parents, unsure of developmental milestones, express feeling very isolated having a child with motor delays compared to same age peers. In November 2016, Occupational Therapy (OT) and Physical Therapy (PT) at South Health Campus (SHC) Neonatal Intensive Care Unit (NICU) began providing routine motor evaluation using the Test for Infant Motor Performance(TIMP) for babies born less than 34 weeks and/or weighing less than 1500g. Following the assessment, parents were instructed in developmental play strategies. Routine therapist involvement in NICU is not typically available at other NICUs in Alberta. Families can continue with outpatient OT/PT support through developmental playgroups offered at the SHC Pediatric Clinic.

Journey: Therapists and the NICU team had identified that infants at risk for developmental delay were not consistently identified. Team collaborated to identify criteria prompting automatic therapist involvement, selected a standardized assessment, and developed information sheets to support parent led developmental play. Following discharge, these families are offered continued OT/PT developmental play support at the SHC Pediatric Clinic.

Impact: Routine assessment has resulted in more consistent identification of developmental therapy needs. Education in the NICU, has supported parents to understand their infant's unique development needs, and empowers parents to confidently support motor development. At the outpatient playgroups, parents have demonstrated that they retained this knowledge and are more active in seeking further support. Infants have achieved developmental milestones at a more consistent pace and with less residual impairment than prior to this initiative. Now, families seen in the Pediatric Clinic less commonly express feeling isolated. Playgroups have provided meaningful opportunities for parents to receive emotional support through interaction with others who share a similar journey.

Lessons Learned: Initially started as a way for therapists to identify children at risk for developmental delay, the true value has been in educating and engaging parents in motor development beginning in NICU and continuing at the outpatient clinic.Routine therapist assessment and parent engagement in NICU has provided substantial benefits to infants longer term development.Significant positive outcomes have been noted despite limited resources (ie. limited play equipment and therapy space)





PATIENT ACCEPTABILITY AND COMPLIANCE OF COMPLETING THE SIGE FORM (SEX, IDENTITY, GENDER, EXPRESSION)PRIOR TO HAVING A DIAGNOSTIC IMAGING EXAM.

Introduction: The gender landscape is changing, and more patients receiving diagnostic imaging exams will not identify with the binary male/female gender roles and definitions. Radiographers have a professional responsibility to ensure patient safety during exams, not limited to but including a safe environment and appropriate protection from ionizing radiation. Transgender and non-binary patients may not present as their biological sex, and this may lead to a communication gap between the technologist and patient. The technologist may not enquiring about patient pregnancy status and apply gonadal shielding inaccurately due to uncertainty regarding patients biological sex. In collaboration with members of the LGBTQ community, the aurthors created a new patient intake form (SIGE form Sex, Identity, Gender, Expression). We believe the form will help patients and technologists ensure best practice in the department. This project was completed in collaboration with SAIT and Pureform Diagnostics in Calgary AB. Aim of study: To evaluate patient acceptability and compliance with completing the SIGE form prior to having a diagnostic imaging exam.

Methods: A qualitative research methodology was applied in this project. Patients arriving at the selected clinics were asked to participate in the project and informed consent was given. The patients completed the SIGE form and related questionnaire. 41 patients participated at two Pureform clinic locationsUsing a Likert-type scale participants were asked 5 questions relating to the SIGE form.

Results: 92.7% strongly agreed or agreed with the following statement: I understood all the choices; 95.1% strongly agreed or agreed with the following statement: I think this is important information to provide to the x-ray technologist; 37.5% strongly agreed or agreed with the following statement: I would provide this information prior to having an x-ray exam

Conclusion: The study provided evidence that patients would be willing to provide the information requested in the SIGE form prior to have an x-ray. There was a high rate of understanding from the participants regarding the importance and relevance of the information they were providing on the SIGE form.





PATIENT SAFETY BEHIND CLOSED DOORS: QUALITY IMPROVEMENT IN MEDICAL DEVICE REPROCESSING

The cleaning, disinfection and sterilization of reusable medical devices is a complex and critical task essential to patient safety. The Alberta Health (2012) Standards for Cleaning, Disinfection and Sterilization of Reusable Medical Devices for All Health Care Facilities and Settings provides clear direction to Alberta Health Services (AHS) and its contracted agencies and service providers on cleaning, disinfection and sterilization of reusable medical devices. AHS areas reprocessing reusable medical devices, flexible endoscopes and surgical textiles are reviewed every three years in cycles. The purpose of Medical Device Reprocessing (MDR) reviews is to take a snapshot of the activities in the sites to evaluate current reprocessing practices and to identify if there are deficiencies that put the patients, public, or organization at risk as well as provide recommendations for remediation of identified deficiencies. Review teams have evolved to include MDR staff and the site infection control professional to improve completion of any corrective actions. Mechanisms are implemented following each cycle to increase interrater reliability between reviewers. The review cycles provide an opportunity to recognize the achievements of nearly 200 reprocessing sites across AHS and its contracted agencies in meeting provincial and national standards for reprocessing reusable medical devices. Compliance within reviewed standards has increased steadily since 2010 which improves patient safety. Moving forward the focus is on addressing corrective actions in the areas of equipment, infrastructure and provincial policy and procedures that are not yet completely resolved. Review tools criteria and supporting standards are available on the external AHS website and other provinces have requested to use the tools to improve their MDR processes. Common themes of challenges with the depth and breadth of reprocessing within AHS and limited resources available have been found since the initiation of the review cycles. Increased co-operative stakeholder engagement has mitigated the review cycle becoming a policing venture, as is a risk with reviews. Automation of the review tools, including paperless data entry promises to further engage stakeholders as their ability to pull data meaningful to their specific area or type of reprocessing is enhanced.





PICU PURGE: LEAN 5S AND INVENTORY MANAGEMENT INITIATIVE

Using the principles of LEAN 5S, the Alberta Children's Hospital Pediatric Intensive Care Unit has recognized approximately \$120,000 worth of annual savings related to supplies and equipment. At the same time, the unit has an increased look and sense of professionalism, and has increased staff satisfaction and efficiency. The ACH underwent a master site planning review in 2016, and calculating population projections until 2030, it showed that the physical footprint of the unit is big enough. However, the unit already had exceeded its supply/equipment storage availability. The clinical need and desire to add new programs requiring additional supply/equipment storage seemed impossible, and, finally, the PICU saw a \$235,000 reduction in PICU supplies budget following Operational Best Practice benchmarking. There was a formulation of a unit focused working group to review all things supply and inventory, with CZ CQI consultant support. Included was representation from the full multidisciplinary team including operational managers, physician, front-line staff (RN, Respiratory Therapy, Service Worker, Unit Clerk), and a CPSM stores attendant. Champions emerged. This is an exemplary project in LEAN 5S, inventory management & creating sustainability. Benefits include improvements in IP&C, patient safety, public perceptions & overall unit space utilization and organization. Reductions in motion and formalizing processes to ensure sustainability. This is relevant to any clinical or non-clinical area who requires equipment and supply storage and inventory management.





PRACTICE IN ACTION: FACILITATING PATIENT BEHAVIOUR CHANGE

Providers want to deliver excellent care. Patients look to providers for support in managing their health and don't want to be told what to do. Patients want to have choice and make decisions based on what is important to them and the life they want to live. Providers play an important role in helping patients uncover their own personal motivation to make lifestyle changes and take action on treatment plans. University education in medical fields tends to focus on clinical knowledge, leaving providers to seek training on how to best to support patients with change after they begin their career. Departments across AHS have responded to provider requests for training by investing in different education offerings over the last decade. However, decisions regarding training are not based on a common understanding of what we expect from providers when talking with patients about change. Training is not well coordinated across AHS and access for rural providers continues to be an important issue. A group of engaged providers with expertise in behaviour change joined together to fill this gap by identifying core skills. The group grew into an interdepartmental working group made up of passionate leaders and providers. The larger group then connected the core skills to available training within AHS. From there, a guide was created to help providers select appropriate training based on their areas of need. Through this work we found that the majority of current learning supports are delivered via face to face workshops or online modules, with limited focus on practice assessment and practical application of skills. More can be done to guide providers to think about their own skills, test out new ways to engage in change conversations with patients and seek timely feedback about their work. The challenge now is to find creative ways to connect with providers to test the guide, review available training, and talk about what is still needed to help them work with patients through change. Using a crowdsourcing approach, we would like to tap into the minds of quality summit attendees to help us tackle this challenge.





PRE-VISIT PLANNING TO IMPROVE PATIENT PREPAREDNESS FOR CLINIC VISITS

BACKGROUND: Patients seen in an outpatient rheumatology clinic often require complex medical care including taking numerous medications, regular lab work and frequent visits with their primary care physician and other specialists. Pre-visit planning has been proposed as a key strategy for improving compliance in other chronic disorders using techniques such as pre-visit phone calls, e-journals, pre-visit questionnaires and checklists. None of these have been studied in the context of an outpatient rheumatology clinic, but may serve to improve patient preparedness, communication, clinic efficiency and ultimately outcomes in our specific patient population.

METHODS: Applying the Model for Improvement along with patient experience to determine the efficacy of methods used for pre-visit planning was supported by a patient journey map, a survey of 125 patients, Gemba walk, cycle time and root cause analysis. All of which identified pre-visit planning opportunities, which supported the design of interventions and generated the plan do study act (PDSA) cycles. The first PDSA cycle was one month involving 10 patients; patient preparedness was evaluated by their rheumatologist, and a PDSA 2 cycle emerged. A post-PDSA patient experience survey and comments from the care team provided intervention impact and areas for further improvement.

RESULTS: Clinic appointment duration was reduced by 5 minutes for new patients and 2 minutes for follow-up patients. Patients reported they appreciated important information, such as what to bring to the appointment, was communicated in advance; first via the mailed appointment package (new formatted appointment letter with pertinent information highly visible) and second, during a reminder phone call. Patients indicated feeling more prepared for the appointment (i.e. up-to-date list of medications, and a list of questions for the Rheumatologist). The Rheumatologist reported patient assessments were more efficient and less time was spent looking up past medical history and medications.

CONCLUSIONS: The combination of improvement methodology and the principles of patient engagement led to simple, innovative, patient-centric solutions that improved patient preparedness, increased clinic appointment productivity and supported a patient-directed clinical discussion, leading to positive impact on patients' experience in the clinic.





PROGNOSTICATING EARLY SUPPORTED DISCHARGE LENGTH OF SERVICE FOLLOWING STROKE: THE DEVELOPMENT AND VALIDATION OF A NOVEL PREDICTIVE TOOL

BACKGROUND: The Calgary Early Supported Discharge (ESD) program provides intensive, in-home, multidisciplinary stroke rehabilitation and aims to maximize clients' functional independence. Currently, the ESD length of service (LOS) predictions are based solely on clinical judgment and vary depending on the clinicians setting the target service discharge date. In order to provide clients, families, caregivers, and supports, as well as the ESD program, and the broader health care system with an estimation of service length, the development of a standardized, predictive tool is necessary.

METHODS: The ESD team uses Australia Therapy Outcome Measures (AusTOMs) to assess clients' overall functioning upon intake to, and discharge from, ESD. Scores from this measure were analyzed retrospectively and compared against clients' actual LOS. Using two systematic random samples, one sample with caregivers and one sample without caregivers, stepwise multiple linear regression was completed to select the AusTOMs measures that were significant predictors of length of service. A predictive tool that considers each of the significant AusTOM measures was then developed to allow ESD clients' LOS to be predicted within a week of admission to ESD.

RESULTS: Based on retrospective percent error calculations, clients' LOS can be predicted with approximately 80% accuracy when caregiver presence in the home is combined with five of the AusTOMs scales: (1) Domestic Life Managing Resources (Impairment), (2) Interpersonal Interactions and Relationships (Impairment), (3) Learning and Applying Knowledge (Impairment), (4) Carrying Out Daily Life Tasks and Routines (Impairment), and (5) Upper Limb Use (Activity Limitation).

LESSONS LEARNED: While similar tools exist for inpatient rehabilitation, this tool is novel in the setting of community rehabilitation. It is important to stress that the use of the predictive tool will not replace clinical judgment. Service length corresponding to best practice that ensures patient health outcomes will not be compromised with a predictive tool. Rather, the implementation of this tool will allow for a more systematic and standardized approach to be taken in terms of intake to, and discharge from, ESD. Specifically, an accurate LOS prediction will provide valuable information on when clients are ready to transition out of the program.





PROMOTING ADHERENCE AND ADVOCACY FOR PATIENTS WITH GLOVE-INDUCED ALLERGIC CONTACT HAND DERMATITIS

BACKGROUND: Allergic contact hand dermatitis (ACHD) is a common occupational skin disease, typically seen in association with the use of medical exam gloves due to the presence of rubber accelerators. Allergen avoidance, following identification via patch testing, is the mainstay method of treatment and prevention. However, there is often a lack of appropriate gloves in the workplace and an understanding of the need for allergen-free gloves. Currently, no structured approach exists for dermatologists to promote adherence and advocacy for the use of appropriate gloves in patients with ACHD. We aim to have 95% of patients follow-up on post patch testing and provide patients with a structured approach to promote adherence and advocacy for the use of appropriate gloves.

METHODS: Patients diagnosed with ACHD attributed to gloves and patch-tested positive to rubber accelerants (thiurams, carbamates and mercaptobenzothiazole) are included in this study. After obtaining informed consent, patients are assessed at baseline and at one month. At baseline, patients are supplied with allergen-free gloves and general skin care instructions. To monitor patients' responses to intervention, the hand eczema severity index (HECSI), dermatology quality of life index (DLQI), and photographs are acquired at each visit.

RESULTS: Preliminary results have been obtained with two patients having completed the one-month follow-up stage and two additional patients having completed the baseline stage. At baseline, patient one's HECSI was 8 with a DLQI of 4; patient two's HECSI was 55 with a DLQI of 18. At one-month follow-up, patient one's HECSI was 0.3 with a DLQI of 5; patient two's HECSI was 15 with a DLQI of 12. Subjectively, our patients both reported a significant clearing of their ACHD with use of the gloves provided, and this is corroborated by obtained photographs.

CONCLUSIONS: Our study is still in the preliminary stages of implementation, but early results have demonstrated that improved follow-up, and provision of a structured approach to manage glove-induced allergic contact hand dermatitis, has led to an improvement in disease severity and quality of life.





PROSCI ADKAR CPS & CAAMHPP: ALPHABET SOUP APPROACH TO CULTURE CHANGE

Collaborative Problem Solving (CPS) is an approach used in addiction and mental health services. It supports a patient-centred approach by emphasizing empathy and joint care planning, moving away from a reward and consequence approach. For some this is seen as a radical change from historical practices but one we know we must pursue in order to reduce aggression, decrease patient and staff safety incidents, and improve the patient experience. Starting in 2015, the Child and Adolescent Addiction, Mental Health and Psychiatry Program (CAAMHPP) in the Calgary Zone began to systematically implement this approach, focusing on inpatient units and day treatment services with a direct impact to 250 staff working across 7 different services. The initiative's goal is to improve daily interactions with patients, better incorporate the patient's and family's solutions into care planning; and coordinate strategies across the multi-disciplinary team. We have seen some success. Statistics continue to be collected related to the use of restraints and seclusion, safety incidents, and staff reported perceptions of safety. Case studies are routinely shared that highlight the application of new skills and the difference made in the care of the young person. However, we have not yet reached the final goals and the road has not always been easy; in fact, we admit that there were times when success felt very precarious; the road had become bumpy, slowing down the process. It became clear that we had to take stock and that change management had to be applied diligently to ensure that we realized the desired goals of our significant investment. This poster presentation will describe the Prosci strategies used to turn the tide, how ADKAR influenced the change process, and how, without this framework, this initiative would not be experiencing the success it is. Because of Prosci our team feels optimistic rather than frustrated, energized rather than defeated, and hopeful the positive outcomes for patients.





PROVINCIAL EMERGENCY MEDICAL SERVICES PALLIATIVE AND END OF LIFE CARE ASSESS, TREAT AND REFER PROGRAM: PHASE II COMPLETION, PHASE III DEVELOPMENTS AND NEXT STEPS. Emergency Medical Services (EMS) and community clinicians are giving care to patients receiving palliative and end of life care (PEOLC) who would otherwise be required to be taken to hospital. Launched in April of 2015, this program is helping to improve patient and family centered care by focusing on high quality interdisciplinary teamwork between community clinicians and paramedics. This innovative program allows community clinicians (homecare and supportive living), paramedics and an online physician(s) to collaboratively manage unexpected symptom crisis to keep patients at home, when appropriate, improving patient and family experiences and reducing the impact on emergency departments. In January of 2018, Phase II of the program was launched into the Medical Control Protocols for all frontline EMS staff, allowing paramedics to identify patients appropriate for PEOLC ATR when they arrive on scene and collaborate with the patient's community clinician and online physician over the phone when they are unable to be in the home at the time of the event. We are currently on Phase III which would see our program expand to include the PEOLC pediatric population. This innovative program supports community clinicians, paramedics and an online physician to collaboratively address symptom crisis to keep palliative patients at home, when appropriate, improving patient and family experiences and reducing the impact on emergency departments. Focusing on high quality interdisciplinary teamwork, the program is helping to improve patient and family centered care in the community setting.





QHI ROCKYVIEW UTERINE RUPTURE SIMULATIONS

Context and Relevance: In 2017, AHS Patient Safety provided a summary of uterine rupture cases with perinatal mortality along with best practice guidelines, so practitioners could better respond to the emergency. It was learned that Alberta had a 0.087% failed recognition rate as opposed to 0.07% rate worldwide. As this medical emergency comes with catastrophic outcomes for both mom and child the scenario was identified by Rockyview eSIM and Obstetrics as an opportunity for simulation. Through simulation teams practice, debrief, and, in turn, apply deliberate practice to ensure more vigilance in responding to the emergency.

Method: The design of simulations required innovation and expertise.

Key stakeholders included obstetrics, anesthesia, Operating Room (OR), and Provincial Simulation Program (eSIM). Learners in the three simulations included nurses, general practitioners, obstetricians, midwives and anesthesia. The activities included a rupture scenario which was realistic per vital signs, patient complaints, history and fetal heart monitoring. Three manikins, including a c-sectionable 'patient' with a 'blue babe', were used to ensure realism. Teams were evaluated through timed metrics of transitions as well as self-rater team evaluations pre/post simulation. The team debriefed practice points per More OB guidelines and documented the qualitative themes from the debriefing

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Outcomes: Literature states that from the time of diagnosis to delivery only 10-37 minutes are available before morbidity becomes certain (Narhum & Issacs, 2016). In our simulations, the Rockyview teams were able to deliver baby within an average of 13 minutes. Evaluations indicated an increased confidence in roles, diagnosis and interventions and communication themes were prevalent. The use of simulation allowed the teams to strategize an effective response for the emergency.

Lessons Learned: As part of next steps, the teams wanted further training for low occurrence/high acuity cases such as amniotic fluid embolism, shoulder dystocia and anaphylaxis. Having many teams participate in experience was powerful to develop roles and communication. The challenges included heavy prep time as well as scheduling conflicts with the many specialties. In future, the simulation team hopes to set dates that can be attending by all teams (including outreach) and offer further complex simulations.





RECOGNISING PATIENTS' RELIGIOUS AFFILIATION AS PART OF THEIR SPIRITUAL HEALTH

Human beings can describe the status of their Spiritual Health in relationship to several different continuums, including the ranges from hope to despair, faith to distrust, peace to turmoil, and belonging to isolation. As Alberta Health Services (AHS) strives for a population of Healthy Albertans, the spiritual component of our overall health needs to be remembered. For about a third of our population, religion plays a significant role in their spiritual health. The importance of capturing this demographic element accurately is seen in its impact on patient's access to meaningful spiritual supports, in addition to compliance with some medical or dietary options. At the Rockyview Hospital, we saw the opportunity to increase patient access to spiritual or religious support through improved recording of their Religious or non-Religious preferences in Clinibase. This has been accomplished through several different approaches:1) Providing a script, rationale and algorithm for Registration Clerks to support them in respectfully engaging in this conversation with patients and families.2) Streamlining of patient intake process that involved discontinuation of a complicated, confusing, and unnecessary Consent to Disclose form. 3)In collaboration with Registration Supervisor, communication to RGH staff and management regarding Religious Preference recording. Success has been seen in an increased number of declared patient preferences, fewer patient complaints about being overlooked by their faith community, and reported improvement in staff satisfaction with navigating these conversations. This is expected to improve Patient & Family-Centered Care through the provision of the necessary information for Spiritual Health Practitioners and Religious Community Visitors to do their jobs. These initiatives highlight an interdepartmental collaborative approach.





REDUCING BLOOD LOSS IN HIP AND KNEE REPLACEMENT SURGERY

Total hip and knee arthroplasties (THA & TKA) are performed at increasing rates in our aging population. There is risk of substantial blood loss during these surgeries, leading to poor patient outcomes and delayed recovery. Clinical evidence supports the use of intravenous tranexamic acid (TXA), a medication administered by anesthesiologists during THA & TKA, as a safe and inexpensive way to reduce blood loss and the need for red blood cell (RBC) transfusions. Anesthesiologists at South Health Campus (SHC) asserted that TXA was used inconsistently. This quality improvement project aimed to increase IV TXA use in THA & TKA. Methods: We retrieved administrative data to characterize TXA use at SHC and analyzed patient demographics, frequency of TXA and post-operative RBC transfusion use. Consenting anesthesiologists received confidential reports on their individual and site-average practice. In October 2016, we hosted a group feedback session to discuss and identify factors contributing to practice patterns. Anesthesiologists identified two key factors affecting their practice: preference of the orthopedic surgeons, and lack of a consistent approach to the dosage and timing. To increase the appropriate use of TXA, we hosted a meeting between anesthesiologists and surgeons in January 2017. We then re-measured TXA and RBC use after the session, between January 2014 and October 2017 to evaluate the project.Outcomes: Physicians successfully increased their rate of TXA use for all procedures from 64% before the project to 78% after (p < 0.05, n=3023, X2 = 49.4), for THA (67% to 74%) and TKA (62% to 83%). Patients who did not receive TXA were 2.3 times more likely to receive a blood transfusion. Use of RBC transfusions decreased by 42% (p=0.05, n=3023, X2 = 3.7) from 3.6% before the initial session to 2.1% in the year after, with a 37% reduction in THA (5.2% to 3.3%) and 74% for TKA (2.5% to 0.6%). Lessons Learned: This project demonstrates that providing physicians with their practice data along with identifying key causal factors in a collaborative group setting is effective to improve practice. The process can be used as a model for projects aimed at improving health care outcomes through knowledge translation.





REDUCING EXCESSIVE LABORATORY INVESTIGATIONS FOR PREECLAMPSIA: A QUALITY IMPROVEMENT PROJECT

Background: Pregnant women suspected of having preeclampsia receive laboratory investigations for diagnosis and surveillance. However, many investigations are ordered from older protocols currently deemed excessively broad - with considerable healthcare cost and the potential for iatrogenic harm. This quality improvement (QI) project aims to reduce unnecessary patient blood draws and healthcare costs.

Methods: QI tools were used to analyze the ordering process on the obstetrics wards of a tertiary care centre. Healthcare providers were surveyed regarding laboratory ordering practices to identify problems, which was corroborated with inpatient chart reviews. Four months of laboratory usage and costs were analyzed. An algorithm for ordering preeclampsia investigations was developed, implemented, posted on wards, and a pocket aide was distributed to residents. Practitioners were invited to educational seminars to support adoption. Plan-Do-Study-Act (PDSA) cycles and outcome measures were evaluated.

Results: Survey data indicated most providers ordered broad panels of investigations, rarely reevaluated frequency, and were unaware of laboratory costs. A majority of respondents acknowledged that some investigations did not affect patient management and based these decisions on institutional convention. Preliminary post-intervention data (Sept/Oct 2017) revealed a 26% reduction in investigations (\$4,515/month), particularly those of low clinical utility including D-dimer (56%) and urea (51.5%).

Conclusion: Preliminary data indicates that a simple and inexpensive intervention reduced overall laboratory investigations for preeclampsia, particularly those of low clinical utility. This resulted in annualized savings of \$54,180 (26%). Subsequent PDSA cycles will study and refine the interventions.





REDUCING LOW-VALUE CARE FOR BRONCHIOLITIS PATIENTS

Bronchiolitis, a viral respiratory infection, is the leading cause of infant hospitalization in Canada. Calgary pediatric emergency physicians (PEP) questioned whether unnecessary tests like chest x-rays and viral studies, and medications like bronchodilators were overused in patients with bronchiolitis. Bronchiolitis clinical practice guidelines do not support the routine use of these tests and medications. The use of unproven therapies and investigations increases costs and length of stay and does not improve patient outcomes. This quality improvement project aimed to 1. Provide PEPs with their individual and peer comparator data on how they are currently managing bronchiolitis in the emergency department (ED), and 2. deliver a multi-disciplinary feedback session to identify opportunities and strategies for practice improvement.

Methods: We reviewed administrative datasets for patients ≤12 months old with bronchiolitis seen in the ED from April 2013 to March 2017. Participating PEPs received individual data reports showing tests and medications administered to bronchiolitis patients. Stakeholders who contribute to patient care in the ED, including PEPs, respiratory therapists, nurses, hospitalists, and learners, attended the facilitated feedback session.

Outcomes: Of the 3655 infants with bronchiolitis, 21.9% were admitted to the hospital. Of those, 42.9% had a chest x-ray, 63.9% had viral testing, and 38.6% had bronchodilators. In discharged patients, rates remained high at 14.7%, 23.5%, and 22.7%, respectively. At the facilitated feedback session, stakeholders identified specific strategies to reduce the use of these interventions, including development of care pathways, alignment with in-patient care, education and repeated data reports.

Lessons Learned: Significant variability exists between bronchiolitis practice guidelines and current practice. Some PEPs expressed surprise at their data reports – the data did not always support perceptions of how frequently they administered tests and medications. Future repeat data reports and facilitated feedback sessions will help to assess the impact of the provincial ED bronchiolitis clinical practice guidelines. An in-patient project will help assess the care of infants with bronchiolitis once admitted to the hospital. By reducing the number of low-value tests and medications in the ED, we will reduce costs and improve patient care.





REDUCING WAIT-TIMES AND LENGTH OF STAY FOR HYDROCEPHALUS-RELATED PLANNED INPATIENT ADMISSIONS.

A review in 2017 revealed that patients were waiting 11 days from their requested admission date to Foothills Medical Centre, which was creating a backlog in the waitlist. An analysis from 2016 indicated a median length of stay (LOS) of 7 days (130% longer than required by treatment), with a range of 2 to 18 days (n=71). The longer the ELD patients waited in the community potentially increased their need for acute admission due to symptom exacerbation; using acute care bed days instead of being managed appropriately as outpatients. The stakeholders were the FMC site managers, inpatient unit managers, outpatient unit managers, the hydrocephalus clinic physician and staff. The pre-drain sub-process showed a mean wait-time for drain inserted of 49 hours-which was 29% of the patients' median LOS. Wastes were identified and improvements related to these wastes were implemented. A pilot was conducted from March 19, 2017 to September 11, 2017. Goals for measured improvement were a reduction in median LOS, a reduction in median lead time (date of admit request " date of actual admission), and a decrease in mean wait for a drain insertion. 30 patients went through the pilot process. Median LOS was reduced by 41% (from 7 to 4.1 days); median lead time was reduced by 98% (from 11 days to 1 day); and mean wait-time for drain insertion was reduced by 67% (from 49 to 16 hours). Early stakeholder engagement and identification was identified as a challenge. Patients and families were also never identified as stakeholders. Neurosciences capacity at FMC continued to be a lead driver of delays in admitting patients; it was often difficult to keep engagement high as the demand for more acute patients took priority. Next steps post-pilot were identified: prioritization of the ELD patient waitlist; prioritization of patient admissions on day requested; insertion of drains during offhours; creation of ELD booking teaching package for patients and families; ELD waitlist tracking using a decision-to-treat and ready-to-treat dates; and patient/family engagement.





REHABILITATION MODEL OF CARE: ENHANCING CARE IN THE COMMUNITY THROUGH CONSISTENT EVIDENCE-INFORMED REHABILITATION SERVICES FOR CLIENTS AND FAMILIES ACROSS ALBERTA Leaders and clinicians in rehabilitation identified several historical and surrent challenges contributing to

Leaders and clinicians in rehabilitation identified several historical and current challenges contributing to the need for a design of services, beginning with Community Rehabilitation (CR). Services across the province have been uncoordinated and inconsistent, funding variable, and accountability mechanisms unclear. Clients and families have wondered how to access services and why there are inequities. Clinicians have been confused and concerned for their clients. Operational leaders expressed frustration and have asked for change. The Alberta Health Services Rehabilitation Strategic Plan was written and prioritized CR to implement the Provincial Rehabilitation Model of Care. Allied Health Professional Practice & Education partnered with a variety of contributors across Alberta including rehabilitation leaders and clinicians to develop the model and supporting resources, the Strategic Clinical Networks to plan and facilitate the Innovation Learning Collaborative (ILC) quality improvement methodology, and numerous internal and external experts to support the collection and reporting of data. From April 2017 to June 2018, eighteen early adopter teams from all five zones attended four ILC learning sessions and monthly virtual team sharing or webinar sessions. Teams developed balanced scorecards along the Health Quality Council of Alberta's six quality dimensions. All teams were trained in Health Change Methodology and are supported by management, and a zone Provincial Rehabilitation Senior Practice Consultant. We will know we are successful when clients say: 'I know where to go', 'Services meet my needs', 'I am progressing', and 'My care is seamless'. For the first time, CR has provincial rehabilitation data. To date, 98% of clients report positive client experience and 61% report improved quality of life following CR services. Providers used quality improvement methods to make changes, and show practice change in alignment with the model of care. Starting small allowed tests and adjustments in processes, methods, and tools, and in how to be responsive to local context within a provincial model. Diverse and similar-service teams benefited from sharing their experiences and learning from one another. Resource limitations and competing priorities were challenges. Scale and spread of the model is planned for 140 more CR sites and to pediatrics, and will build on lessons learned.





REVIEW OF PALLIATIVE CARE REFERRALS FROM ACUTE LEUKEMIA IN-PATIENT UNITS

Despite the aggressive nature of the acute leukemia and the accumulating evidences in benefit of palliative care, it is rarely utilized. The rate of referrals to palliative care among acute leukemia patients were found to be extremely low at 5.7%. In comparison, a retrospective study found 7.3% of the hospice cancer patients were diagnosed with hematological malignancy, whereas 92.7% were of solid tumor patients. A study found the acute myeloid leukemia population averaged 6 days between the point of referral to death, a shorter interval than the average of 2 weeks found among malignant hematology site. Involving palliative care is perceived by patients to discontinue of the curative treatments, further challenging its involvement. Consequently, many physicians find it difficult and are reluctant to push the idea of early involvement of palliative care in the treatment phase. This quality improvement project perceives access to palliative care services as an essential part of healthcare. The project in its initial phase conducted a retrospective chart review to determine the current baseline referral rates from acute leukemia inpatient units. Palliative care no longer solely represents end-of-life care but emphasizes improving quality of life, maintaining dignity, and enhancement of symptom management. With the common clinical goal to attain what is best for the patients, systematic enhancement of the current model of practice is called for. The aim of this quality improvement project is to establish a baseline data and explore patient factors that might be relevant to determining potential improvement interventions. With an overall goal to address last-minute attempts in palliative consults in order to deliver smooth transitions in care, thereby providing higher quality of life.





SAFEST TOGETHER: CREATING A HIGH RELIABILITY CULTURE OF SAFE PEDIATRIC PATIENT CARE

'Safest Together' is an Alberta Children's Hospital (ACH) and Stollery Children's Hospital culture and practice transformation aimed at improving reliability and eliminating harm in patient care. Preventable harm in pediatric hospital care is estimated to occur in 1 of every 25 hospital admissions. Our goal is to achieve zero harm. Achieving this goal will involve a high reliability culture transformation and engagement of leadership, frontline staff, patients and families in adopting best practices and improving our systems. At ACH, this transformation involves two major initiatives. First, ACH and Stollery have partnered with the Solutions for Patient Safety (SPS) Network, a quality improvement collaborative of 130 centers that share best practices and benchmarking to reduce 11 common adverse hospital acquired conditions (HAC's). SPS aligns with AHS quadruple aim and AHS's Improving Health Outcomes Together (IHOT) focus and targets significant reduction in serious and preventable harm. Statistical process control charts monitor performance in the various HAC's with data obtained from health records and direct observation audits. Results are displayed at the unit level and shared with the network to monitor progress. Improvement data from the first four HAC's (Pressure Injury, central line associated bloodstream infections, surgical site infections, and peripheral intravenous infiltration and extravasations) will be available by September 2018. The second initiative implemented at ACH is the Alberta Children's Hospital Early Warning System (ACHEWS), leveraging Sunrise Clinical Manager functionality and pairing a standardized escalation and intervention processes with clinical data to reduce serious safety events. Following implementation in July 2017, ACH inpatient units have had zero qualifying resuscitation events. The methodology applied in these two initiatives leverages quality improvement, robust clinical safety oversight and change management with an emphasis on engagement of frontline health care providers, patients, and families. Both initiatives emphasize design to support sustainability. Learning's include the importance of communication and engagement with frontline staff as a critical change management strategy. This work may be translatable to: 1) rural and regional sites that care for children and 2) high reliability processes that are developed may be useful in adult acute care sites and in other organizational priorities.





SAFETY SCALE FOR THE ADOLESCENT UNIT AT FOOTHILLS MEDICAL CENTRE

The main concern for most patients and families admitted to any adolescent mental health inpatient unit, is within the context of suicidal ideation. As a result, it became the focus of a quality improvement project on Unit 23 at the Foothills Medical Centre. Previously, staff would ask a scaling question to determine the severity of risk such as, 'On a scale of one to ten, with 'one' being the lowest and 'ten' being the highest, how suicidal are you?' This question would only reveal the patient's level of severity in the moment, without addressing how they could manage these thoughts, or what coping mechanisms could be helpful in reducing the severity of these thoughts. The Safety Scale was created as a supportive tool to galvanize practical resolutions leading to improved patient outcomes. The 'voices' of both the patient and family, resound in this scale, as it requires participation by both parties to effectively complete the document. The scale aligns with Alberta Health Services' Suicide & Risk Management Policy Suite standardized within Child and Adolescent Mental Health. This tool consists of a number rating and face depiction of their feelings with the following questions: 1) When you (the patient) are at this number, what are you thinking and feeling? 2) What do your behaviors look like? (E.g. sleeping, crying). 3) What do you need? (E.g. talk to someone). 4) What can your caregiver do to support you? (E.g. stay close to me). As part of the project, the tool underwent a series of revisions. One of the many modifications was the addition of facial emojis; this seemingly innocuous change enhanced the engagement of patients with developmental challenges. Through the collection of qualitative feedback and satisfaction surveys, patients and families have conveyed that the scale actively invites them to be direct participants with regards to their care. The Safety Scale has now been incorporated into an official legal document via the Alberta Health Service Forms Department. It is our sincere hope that this scale will be adopted by other mental health units and will be a best practice tool going forward.





SELF-MANAGED CARE ORIENTATION: CLIENT DRIVEN IMPROVEMENTS

Context and Relevance: Self-Managed Care (SMC) gives money to home care (HC) clients to hire caregivers. SMC offers clients choice not available through regular home care. Before joining SMC, clients and/or their representatives attend a 2 hour in-person orientation that outlines the program. The orientation program needed improvement: 8 week wait list to attend; only 46% of attendees became SMC clients; HC Case Managers reported clients found the orientation overwhelming. The team's goal was to reduce wait times from 8 to 4 weeks, which would result in annual savings of \$439,000. Improving wait times has value for the health system because SMC services cost 36% less to deliver than traditional services. Reducing wait times improves the client/family care experience because clients receive the right care at the right time.

Methods: Using the Alberta Improvement Way (AIW) framework, a team (managers, clinical lead, case managers, and financial clerks) completed Process Mapping & Root Cause Analysis on wait times. The team reviewed Case Manager knowledge, the process to sign up for orientation, and content. A Patient and Family Advisor focus group provided feedback on organizing content and preferred ways to learn the materials. The team implemented quick win improvements identified in the Root Cause Analysis: booking rooms to full capacity; filling cancellations from a waitlist; screening clients for eligibility. The team also developed a handouts to prepare clients for orientation and created education for Case Managers to enable better pre-screening.

Outcomes: Early into the AIW, orientation wait times decreased from 8 to 2 weeks. Other outcomes included: SMC education is included in orientation for new HC staff; SMC Manual is divided into individual modules that are available to clients when they are ready for them; 55% of attendees joined SMC in early results; There is provincial commitment to develop new web and print materials for client orientation, based on recommendations from the Patient and Family Advisor Focus group. HC recently received a legacy donation that is dedicated for this purpose.

Lessons Learned: Sustaining improvements is challenging. We need to monitor processes to ensure the wait time reduction is maintained. Clients desire multiple ways of learning information.





SMOOTH MOVES: DECREASING WORKER INJURY AND PRESSURE INJURY RATES IN THE CRITICAL CARE SETTING

CONTEXT AND RELEVANCE Our program started this project to help our staff find alternate methods for patient repositioning and reduction of pressure injury of our patient population.From May 2016 through September 2017 there were 46 Patient Handling Injuries costing the facility an estimated \$434,792 in treatment cost. That is an average of 3 Patient Handling Injuries per month.From October 2016 through October 2017 there were 45 Pressure Injuries costing the facility \$1,976,850. That is an average of 4 Pressure Injuries per month.

METHODSRemoval of all soaker pads that were used for both repositioning and moisture management.Implement Sage Prevalon Air Turn and Positioning (AirTAP) System.Assess the impact on health care worker injuries while repositioning patients.Measure pressure injuries reduced with AirTAP System use.Reduce cost in pressure injuries, health care injuries and cost to treat occurrences.Ensure staff satisfaction and commitment to use.

OUTCOMES: 30 day Trial Period 'ZERO' Patient Handling Injuries; 'ZERO' Pressure Injuries during the 30 day trial period.JANUARY 'ONE' Patient Handling Injury 'ZERO' Pressure Injuries FEBRUARY 'ZERO' Patient Handling Injuries 'ZERO' Pressure Injuries.SAVINGS 90 Day Estimated Savings of \$520,719

LESSONS LEARNEDStaff was very resistant to the change prior to any teaching. Once product fully rolled out on the unit staff by-in was markedly increased and enthusiasm was obvious. Feedback was positive from majority of staff. Dramatic decrease in Health Care worker injuries. Overall a great change for our program.





SOUTH HEALTH CAMPUS ENDOSCOPY PATIENT FLOW IMPROVEMENT PROJECT

The SHC Endoscopy Unit provides Endoscopy and Colonoscopy procedures for Patients with gastrointestinal concerns. The unit operates with 2 procedure rooms, 9 beds and a current capacity of 15.3 patients/day. An opportunity to improve Patient Flow was identified based on long wait list times and outcomes of successful Endoscopy improvement projects at other sites. The current SHC % Scheduled and Utilization rates are low and Patient Length of Stay is longer than desired, at 2h 33min. These inefficiencies have a negative impact on Patient wait times and access to care. Endoscopy Suite % Scheduled Time = 58%, Endoscopy Suite % Utilized Time = 52%

The project goal was to decrease Patient Length of Stay by 10% and increase Utilization of the Endoscopy procedure rooms by 20% by December 31, 2017. The AHS Improvement Way (AIW) Methodology was used to facilitate the process improvement initiative, providing a data-driven approach and structure to guide the project. A 2-Day Rapid Improvement Event was held with a multidisciplinary team consisting of Endoscopy Physicians, Nurses, Unit Clerks and Booking Clerks. The team mapped processes, completed root cause analyses and identified waste, supported by process observations and data.Improvement ideas were generated from the opportunities identified in Build Understanding. Ideas were affinitized (Length of Stay, Scheduling, Utilization, Other) and prioritized for execution.Improvements Implemented: 100% Scheduling Template Patient Arrival Time changed to 45 minutes; Optimized Procedure Room Bed Assignment; Improved Process for Discharged Patients; The Patient Length of Stay was reduced by 25% to 1h 54min and the Procedure Room Utilization increased by 12%. Additionally, the Procedure Room Scheduled Time increased by 27%, Pre-Procedure Wait time decreased by 36% and On-Time Procedure Starts improved by 33%.

As a result, the unit's capacity increased by 2 Patients/day, equivalent to 500 additional Patients/year.

Challenges encountered included competing priorities for resources addressed by leadership and designing effective improvements, aided by the application of PDSA Cycles. While the specific project goal for Utilization was not achieved, the project was a success in the environment it created for innovation. These successes and learnings can be spread to Endoscopy Units across AHS.





STANDARDIZING PROCESSES IN NEUROLOGY CLINICS TO SUPPORT BEST PRACTICE, EFFICIENCY AND OUTCOME MEASUREMENT

The Calgary Zone Division of Neurology supports 13 outpatient clinics across four adult acute care hospitals. Prior to project initiation there was large variability in clinic processes, workload measurement, and accountability structures for managing outpatient appointments. The primary goal of the project was to develop clear, standardized appointment guidelines to support collection of quality data and optimize care delivery to patients. The appointment guideline incorporated best practices and reflected stakeholder perspectives, including clinic managers, staff, physicians, and patients and partners within the department of Patient and Family Centred Care (PFCC). Mirrored client and physician processes and resources were developed to complement guideline processes and foster communication with clients and referring physicians including patient letters, highlighted inserts, impact signage and FAQs. All resources were posted to Insite to enhance communication and transparency. The new guideline was presented to clinic staff and physicians to promote compliance and accurate data collection. A telehealth train the trainer model was used to raise guideline awareness for physicians, managers and leaders from all four sites. Baseline clinic data suggests a no-show rate of 8%, which translates into a loss of over 1100 appointments for FY 2017, equivalent to a 0.50 FTE Neurologist. Patient and staff surveys demonstrated lack of clarity regarding no-show and appointment management processes and a desire for a standardization. Implementation of the new guideline is scheduled for May 1, 2018. Rollout plans include socializing the change for patients and staff, maintaining communication with clinic managers and physician leaders, and supporting everyone through the process. The project team will prospectively monitor no-show rates and survey patients and staff to understand unanticipated impacts. A clerical audit will track behavior change. The project team will review the data at the end of the first improvement cycle, scheduled for July 31st, 2018. The project has already improved accountability to patients regarding clinic expectations, clarified staff performance requirements, and engaged physicians to participate in clinic process improvement. The results will be used to measure progress optimizing processes and wait-times, while fostering a culture of accountability and improved communication between staff, patients, and physicians.





SUCCESSFUL NATION-WIDE COLLECTIVE IMPACT IN PATIENT SAFETY

Patient safety is the reduction and mitigation of unsafe acts within the healthcare system, as well as using best practices shown to lead to optimal patient outcomes. Despite the best efforts of many, patient safety incidents are alarmingly high in Canada. Over the next 30 years, 12.1 million Canadians will be harmed by the healthcare system and 1.2 million Canadians will lose their lives to a patient safety incident (Risk Analytica 2017). At the Canadian Patient Safety Institute, we believe patients deserve better. Collective Impact is a model for solving complex social issues through innovative collaborations across government, non-profits, and the public to achieve change. The Collective Impact model was used and evaluated to foster unprecedented collaboration in patient safety across Canada. In 2014, a National Patient Safety Consortium which includes national patient safety/quality organizations, as well as provincial and territorial quality/patient safety councils, government representatives and patient groups was formed to develop and advance an Integrated Patient Safety Action Plan (IPSAP). Participation in the IPSAP from 2014-2018 has grown and currently stands at 106 organizations and over 80% of actions are complete. Eleven in person meetings are complete and involved 270 leaders and 27 patient and family members. Several important outputs have impacted both policy and practice, including: Never Events for Hospital Care in Canada: Am I Safe? Supporting conversations about patient 5 Questions to Ask About Your Medications; Patient Safety Culture Bundle safety in the home; for CEOs and Senior Leader; Engaging Patients in Patient Safety: a Canadian guide The National Patient Safety Consortium successfully used the collective impact model and has been called an 'exemplar' in collective impact by an independent evaluation. This work is receiving international attention for the degree of collaboration, with patients as full partners. Lessons learned include the importance of a shared purpose and guiding principles as a 'true north', the ongoing need for targeted communication to increase spread, and involving more frontline providers in the work. Next steps are implementing the outputs with national safety improvement projects and further knowledge translation of the evidence and impact achieved through this transformational change initiative.





SURVEY OF PHYSICIAN SATISFACTION WITH ANATOMICAL PATHOLOGY SERVICES IN ALBERTA

Objective: To determine the satisfaction rate of physician users of Anatomical Pathology (AP) services provided by Alberta Health Services (AHS), the provincial AP Quality team developed a survey that was distributed to a select physician group who were high volume users of the service.

Methods: Published literature on methods to survey AP user satisfaction was reviewed and found to be scant. Since a Canadian based survey method was not found, a United States Q-probe survey from the College of American Pathologists was used to inform the development of the survey. The 13 survey questions were grouped as follows: 1) interaction/communication, 2) administration, and 3) overall satisfaction with services. A section for comments was also included. Physicians were mailed a paper copy with the option to use an online version, and were provided 6 weeks to complete and return it. Results: 998 copies of the survey were distributed and 257 (26%) responded.

Summary results were: QuestionsOverall rate of satisfactionOverall services93% VeryGood/GoodQuality of AP report/accuracy94% Very Good/GoodQuality of professional interactionwith pathologists98% Very Good/GoodCourtesy of technical staff 94% Very Good/GoodCourtesyof secretarial staff93% Very Good/GoodSome individual comments drew attention to problemswith the timeliness of some reports.

Conclusions: Overall, there is a high level of satisfaction amongst this physician user group with AP services in Alberta. The results provide baseline data against which the future performance of the AP quality assurance plan and any quality improvement practices can be evaluated.





THE FAST PROGRAM: IMPROVING ACCESS TO SURGICAL CARE THROUGH CENTRALIZATION OF CONSULTATION

Improving access to surgical consultation is an important priority for Albertans. In late 2015, a group of general surgeons at the Royal Alexandra Hospital came together with leaders from Alberta Health Services and the Edmonton North and Edmonton Oliver Primary Care Networks to develop an innovative new way to handle requests for surgical consultation. The goals of the project were to improve access and patient flow through our system. Our work was guided by shared values of mutual trust, respect, transparency and our shared desire to deliver high-quality patient care. The project was managed by a stakeholder group of surgeons, family doctors, medical office assistants, leaders and administrators which met regularly to set direction and review progress. Together, we established a centralized referral system used by over 700 family doctors and 12 receiving surgeons. At the time of writing, over 6,400 requests for consultation have been handled through the system. We shared data between physicians to learn about wait times and get a picture of group practice. We also established the 'Next Available Surgeon' model as an efficient way to distribute consults between surgeons to minimize patient wait times. We added innovative features such as fast-tracking for high-risk patients, more efficient use of outpatient time, development of a new Rectal Bleeding Screening Clinic, tracking of operative yield and development of a new General Surgery clinic at the Edmonton North Primary Care Network. Program evaluation demonstrated improved access for patients, an increased number of consultations provided and decreased wait times. We also showed high levels of satisfaction among surgeons, referring doctors and medical office assistants. The quality of referrals increased, and there was an increased sense of teamwork. Engagement, consensus-building and consistent leadership proved essential in managing this change. Enhancing trusting relationships between surgeons and family doctors was also vital. We plan to expand this work to other centres and to further explore the use of surgical screening to improve operative yields. In conclusion, this work demonstrates that central intake and distribution of consults is an effective way to improve surgical access for Albertans.





THE IMPACT OF NOVEL INFECTION CONTROL INTERVENTIONS ON HOSPITAL ACQUIRED CLOSTRIDIUM DIFFICILE INFECTION AND PATIENT OUTCOME

Context and Relevance: The North Zone of Alberta Health Services experienced an increase in the rate of Hospital Acquired Clostridium difficile infection (CDI) in the fall of 2015. Furthermore, unusually high rates of CDI attributable mortality were noted.

The goal of this project was to reduce Hospital Acquired CDI and related adverse outcomes.

Methods: A Patient Safety Review was conducted and system issues identified. In light of that, the Infection Prevention and Control program developed new tools and strategies that encompassed a Patient Follow up Algorithm, Pre-Printed Care Order Set and Tiered Management Documents. The Patient Follow up Algorithm outlines the process used by Infection Control Practitioners (ICPs) to engage with the care team and to provide guidance on patient management. The Pre-Printed Care Order Set provided evidence based guidelines to the prescriber regarding case severity classification, antimicrobial stewardship and treatment. The Tiered Management Documents clearly identified the best practice measures to be taken by each member of the healthcare team. These tools were implemented for all suspected and confirmed CDI cases.

The North Zone Hospital Acquired CDI rates, as well as attributable mortality, in the 12 months before and after the implementation of the new tools were compared.Outcomes. The Hospital Acquired CDI rates were 2.6 and 1.5 per 10,000 inpatient days for the pre and post implementation periods respectively. The rate decline was statistically significant (p value < 0.05). The Hospital Acquired CDI attributable mortality was 9.52% and 2.56% for the pre and post implementation periods respectively. However, the decline in attributable mortality wasn't statistically significant (p value = 0.18). Adopting an interactive approach with best practice guidelines and clearly identified responsibilities reduced transmission, promoted patient safety and improved outcome.

Lessons LearnedThe implementation of the new tools required the involvement of all stake holders, including Site Leadership, Environmental Services, Frontline Staff, Pharmacists, Physicians and ICPs.Regular interaction and follow up by ICPs was essential to ensure the effective implementation of the new tools.Providing timely surveillance reports to site leadership and frontline staff was crucial in order to obtain a sustained improvement.





THE PRE-CONSULT CALL: WHERE EFFICIENCY, QUALITY AND PATIENT EXPERIENCE COME TOGETHER

A CancerControl Alberta (CCA) provincial forum including patients, staff and physicians identified that some clinic activities were overwhelming and deterred from the primary focus: cancer diagnosis and treatment discussions. Sites were asked to explore local solutions and share findings. A Cross Cancer Institute (CCI) interprofessional working group formed to tackle three objectives: Improve efficiency of new patient clinics. Improve the quality of patient information for the clinics (e.g. History, BPMH for Medication Reconciliation, etc.). Improve patient experience by focusing on activities that matters most to patients.CCI implemented a Pre-Consult Call for new patient clinics

Efficiency: Collecting required patient information was moved from the clinic to a scheduled patient phone call. This included a transition from paper forms to the Electronic Medical Record making information immediately accessible to clinical team members for prep activities in advance of the patient's first consult. Consequently, this streamlined duplication during assessment and freed clinic time.

Quality: The facilitated conversation and can be cross referenced with Netcare to identify discrepancies to the clinical team. This improved the quality of information compared to the prior paper forms. The nurse/physician can then address these with the patient during their first consult. There was an increase in the completion rate of BPMH and other quality indicators.

Patient Experience: The Pre-Consult Call provided a patient-centered connection. Patient surveys confirmed the high value of the Pre-Consult call. Especially that it was scheduled and allowed them to supply information from the comfort of their home. It also helped clarify expectations for their first visit and gave them the chance to specify key concerns or questions they want addressed by the clinical team. Patients expressed appreciation that their team was already thinking of them, before they had even been here.

This project was completed within existing resources, without adding time to clinics and did not eliminate clinical assessments or activities. After the pilot, the Pre-Consult Call was adopted and spread within CCI. Learnings were shared with CCA counterparts. Our colleagues at the Tom Baker Cancer Centre subsequently customized their plan and have commenced implementation.





THE WAITLIST DILEMMAQUALITY IMPROVEMENT PROJECT-BROOKS OUTPATIENT PHYSIOTHERAPY SERVICES

Context & Relevance: Waitlists are common in health services. In the Brooks Physiotherapy Outpatient Department, wait times were 8 to 10 weeks. Over the years, staff tried different ways to reduce wait times with some success, but the waitlist would return quickly. Doctors and patients were concerned over the time it took to access services. Team members worried about the possible negative effects on their clients due to long wait times

Methods: A team of department staff, quality consultants and patient representatives was formed. This team used the Alberta Improvement Way methodology to take the time to: understand the problem, analyze causes, identify solutions and selecting action items. The team liked the idea of a 'walk-in' clinic, used in larger centers with some success. To meet their needs, they developed the model of a Morning Assessment Clinic. This clinic sets aside specific time for clients to have an assessment. Then, clients choose when they would like to come. This means, the team and the client would be together at the right time. The clients would always show up for their assessment and it removed the possibility of cancellations. The clinic was trialed in October 2017 with ongoing review and 'tweaks' over eight weeks.

Outcomes: As of the first day of the Assessment Clinic, the waitlist was gone. After six months, there continues to be no wait list. Therapists found that earlier access to services decreased the number of treatments patients need. Staff time lost to no-shows and cancellations reduced. Clients are consistently happy to receive such timely service.

Lessons Learned: The team learned the value of working through a problem. Several thought that extra therapists were needed, but the problem was addressed without adding staff. As well, it is necessary to continually refine solutions. Since some clients cannot access the morning assessment clinic, a central person was established to facilitate improved access. As long waitlists are a common issue, we feel that this model can be adopted in smaller sites within AHS with similar results.




TRANSFORMATION OF MAJOR BREAST CANCER SURGERY DELIVERY FROM OVERNIGHT STAY TO SAME-DAY SURGERY IN ALBERTA

In 2014, the Canadian Partnership Against Cancer reported rates of breast cancer mastectomies done as day surgery for Alberta at 1.4% as the lowest in the country in comparison to other provinces including Ontario at 38.7%. Evidence highlights that same-day major breast cancer surgery is safe and patient satisfaction is high. This prompted a Cancer SCN-led provincial quality improvement initiative to support the breast cancer surgical community (patients, clinicians, administrators) in transforming delivery of major breast cancer surgery from overnight stays to same-day surgeries.

A provincial perioperative care pathway for same-day major breast cancer surgery was designed and implementation initiated in 2017 at 14 hospitals. This included: 1) defining which patients can receive same-day mastectomy; 2) providing feedback to clinical teams on quality measures including same-day surgery, readmission and post-operative complication rates through a provincial dashboard; 3) developing and disseminating a provincial package for patient education before and after surgery including print, online, video and group teaching materials; 4) orientation of surgical nursing staff; and 5) engagement of local administrative and breast surgeon champions to advance the provincial pathway tailored to local context at each site.

Same-day surgery rates for patients receiving mastectomies and no immediate reconstruction have improved from 7% (N =239) in Oct-Dec, 2015 to 41% in Oct-Dec, 2017 (N = 227). There was no association of increased age or co-morbidities with overnight stays and no association of increased readmission or post-operative complication rates with same-day mastectomies. Since 2011, the breast cancer surgical community has released 1031 bed days to the system through delivery of same-day major breast cancer surgery.

Patient experience of perioperative care is currently being assessed in Edmonton and Calgary. A key lesson learned is that how patients receive education is equally as important as having up to date and consistent patient education materials. This highlighted future opportunities in optimizing how clinical programs coordinate and deliver breast cancer surgery patient education between care providers. Development of a provincial pathway, patient education and measurement supports through evidence, data and consensus is a model that can be spread to standardized perioperative care for other cancer surgeries.





TRANSLATING KNOWLEDGE FROM MEDICAL LEGAL CLAIMS TO IMPROVE PATIENT SAFETY

A not-for-profit insurer for Canadian healthcare organizations and practitioners devised a method to scale and spread learning from medical-legal claims, a process typically hindered by secrecy and stigma, long times to resolution, and low frequencies. Claims, however, are a rich source of knowledge that includes identification of unique types of risks, robust analyses by clinical experts, and quantification of harm in terms of dollars.Our knowledge translation approach: 1.Claims analysis to identify top risks. A rank-ordered list was developed for acute care hospitals; 30 risks accounted for 85% of all claims costs. The list was disseminated to help prioritize risks. 2.Risk Reference Sheets: concise resources for each risk highlighting: common claims themes; case studies; a checklist of actionable mitigation strategies.3.

Risk Assessment Checklists: online program enabling systematic self-assessment of compliance with each of the top 10 mitigation strategies for each risk. The program runs on a 3-year cycle. A summary report is generated annually to help with integrated risk management reporting. The program is being used by hospitals to help prioritize improvement efforts and annual reassessments are used to track changes over time. The top 5 improvements are seen in: 1) Failure to identify/monitor hyperbilirubinemia "Organizations without obstetrics 2) Inadequate quality checks for contracted/agency nursing staff 3) Failure to identify/manage intravenous infiltration 4) Suicide/selfharm of patient 5) Failure to appreciate deteriorating patient conditionTo date, 73 acute care organizations have completed the first 3-year cycle of the program. Results show an increase in overall compliance rate from 85% to 93%. Given the relatively low frequency and lag times of claims data, impact on future claims will not be determined for several years to come. We are using aggregated results to identify future areas of focus and intervention. Risk rankings, reference sheets, and Risk Assessment Checklists have also been developed for other healthcare sectors. Currently, approximately 275 organizations in Canada are taking part in the Risk Assessment Checklists program. A strong vision for patient safety can overcome barriers to sharing knowledge from medical-legal claims. Resources that are concise, prioritized and easy to use can facilitate knowledge transfer.





UNDERSTAND, IMPLEMENT, IMPROVE: AN APPROACH TO IMPROVING QUALITY AT A COMMUNITY PRIMARY CARE CLINIC

One of the Calgary West Central Primary Care Network (CWC PCN) member clinics approached the Patient Medical Home (PMH) team, which consists of both patient care team and patient information team members, for support with improvement work. The clinic was interested to know more about the population health of their patients. Specifically, they were interested in the management of patients with either respiratory disease or a mental health condition as they felt that these were frequent appointment types at the clinic. A team meeting was held to determine what patient health outcomes were of interest related to these two conditions. The clinicians were interested to know: basic demographic information (i.e. distribution of age and gender), smoking status, most recent lab values, medications, co-morbidities, and visit history. The relevant data was extracted from the electronic medical record (EMR), cleaned and merged prior to analysis. Aggregated data was analyzed and visually displayed for the clinicians to easily interpret and areas for potential improvement were highlighted. After presenting the data back to clinic, areas for targeted implementation were chosen. Specifically, the clinicians were concerned with the number of patients with respiratory disease or a mental health condition that also smoked. A process was implemented whereby patients with either a smoking status or patients coming to the clinic for a mental health appointment were be flagged in the EMR and offered 3 standardized assessments to complete in the waiting room prior to their appointment: a PHQ9, GAD7 and readiness to quit smoking ruler. Templates for these assessments were created in the EMR to support documentation of the scores and assessment scores were input by a team member prior to the patient seeing the clinician. The clinicians were able to use these assessment scores in their appointments to make decisions and improve the care offered to these patients. The process was evaluated by monitoring the number of completed assessments over time. Next steps of the project will involve monitoring patient health outcomes as a result of the implemented clinic process and supplementing the work with additional improvement goals.





UNDERSTANDING PATIENT EXPERIENCE OF SHARED DECISION-MAKING IN COMMUNITY REHABILITATION: STEPS TO REALIZING PATIENT-CENTRED CARE

BACKGROUND In April 2017, 17 early- adopter sites implemented a new Model of Care for Community Rehabilitation to promote patient-centred care (PCC). PCC requires shared decision-making (SDM), where patients share their values and preferences, providers share best clinical evidence, and all parties work together to reach decisions. SDM is linked to better patient knowledge, outcomes and selfmanagement, and less anxiety and inappropriate service use. To understand the relative success of the Model means understanding patient experiences on SDM in community rehabilitation at these early adopter sites. While some SDM research has occurred in physician practice settings, research gaps still exist around SDM in community rehabilitation. Our research explores community rehabilitation patients' experiences of SDM and views on barriers and facilitators to SDM and PCC. METHODSPhase 1 (Feb-Apr 2018) pilot work involved qualitative interviews with SCN patient advisors with community rehabilitation experience through purposive sampling. Thematic analysis guided coding of interview transcripts. Phase 2 (Apr-Dec 2018) will involve a set-collect-reflect patient engagement method involving Patient and Community Engagement Researchers (PaCERs) co-designing, implementing and analyzing three phases of focus groups with patients. Purposive sampling will direct recruitment at the early-adopter sites. Thematic analysis will guide transcript analysis, informing subsequent phases of focus groups.OUTCOMESPhase 1 was completed to inform current Phase 2 planning and implementation. Interviews with two patient advisors revealed that the experience of SDM in community rehabilitation was characterized by information exchange and power. Information exchange could either promote or hinder SDM, and clarity in understanding and goals were crucial to perceptions of adequate SDM. Power was an undercurrent to the SDM experience. Power more than time impacted the nature of trusting relationships, and there may be links to gender. LESSONS LEARNEDPhase 1 limitations will be addressed in Phase 2 (e.g. current (not previous) rehabilitation patients; increasing sample size for diversity and saturation). By fall 2018, two rounds of focus groups will be complete for detailed findings on patient SDM experiences to inform sites and policy-makers on Model implementation successes and challenges from patients' perspective. This co-design research will promote authenticity of the patient voice during quality improvement.





UNIVERSITY OF ALBERTA HOSPITAL ANATOMICAL PATHOLOGY TURNAROUND TIME IMPROVEMENT PROJECT

Anatomical pathology is the area of laboratory where diseases such as cancer are diagnosed based on the macroscopic and microscopic examination of organs and tissues. Most tissues removed surgically will come through the Anatomical Pathology laboratory to be processed by technical staff to create stained tissue on glass slides which are then read and reported by pathologists. Through our quality assurance program it was identified that our site was not meeting its target set for turnaround times for patient cases which could lead to delays in patient treatment and also create added anxiety to patients awaiting a diagnosis. The scope of this project was limited to the time of specimen receipt in the laboratory to the time the initial slides are delivered to the pathologist. The approach of AHS Improvement Way (AIW) was used which is based on Lean and Six Sigma principles. Steps to identify problems in our workflow included mapping out the process, taking timed measurements of each step, and identifying the bottlenecks in the process. The technical staff then performed a cause and effect analysis which identified contributing problems in our processes. Daily workflow journal were also usedeach bench kept an hour by hour journal during their shift to record what they were 'actually' doing. We knew that some of our benches had unbalanced workload but it wasn't until this task that we were really able to identify the problems. Solutions were then brainstormed and implemented. The solution with the biggest impact was aligning the staff schedules to the workflow coming through the lab and carefully assessing the utilization of resources. Additionally job duties were defined to create role clarity and balance workload. From the initial measurements taken in September 2015 to ones taken in November 2017 the department saw an overall average decrease of 23% in turnaround times.Lessons were learned throughout the process and include making use of evidence based decision making, addressing problems increases teamwork and morale, increase in role clarity decreases stress and celebrate your department's successes.





UNMET END OF LIFE CARE NEEDS IN PATIENTS WITH ADVANCED OR END-STAGE ILLNESS PRESENTING TO EMERGENCY DEPARTMENTS

Many patients advanced or end-stage disease spend months or years in a chronic disease state in need of optimal physical, spiritual, psychological, and social care. Those with severe illness often have increased symptom burden and find themselves presenting to Emergency Departments (EDs) for care, especially with severe symptoms (e.g., pain, shortness of breath, confusion, etc.). In the current Alberta healthcare system, patients with advanced or end-stage disease who need end of life care have unplanned visits to EDs with emergent or unmet urgent needs. These patients often lack advanced care planning knowledge and documented 'goals of care' designations. In addition, some of these patients may be admitted to the ward, occasionally to Critical Care, and may die in hospital without receiving evidence-based palliative or end of life care. This trajectory has not been systematically quantified in this province and the nature and magnitude of gaps in care have not been explored. This project will identify diagnoses and unmet palliative care needs of patients with advanced or end-stage illness presenting to EDs in major tertiary centre " University of Alberta Hospital " and two community centres" Grey Nuns Community Hospital and Northeast Community Healthcare Centre. What happens to these patients in the health care system, their socio-demographics, perceptions of ED physicians on unmet palliative care needs for these patients, and the extent of advanced care planning and documentation of goals of care for these patients will be explored. While valuable and unique information on unmet end of life care needs will be gained through this project, an understanding of strategies and barriers to getting uptake of palliative care screening tools in different ED departments will also be garnered. These key lessons learned will be used to design future quality improvement efforts to address unmet end-of-life care needs for patients with advanced or end-stage disease.





USING SYSTEM INTEGRATION SIMULATIONS FOR IMPLEMENTING LARGE SCALE PRACTICE CHANGES FOR A POST CARDIAC SURGERY, CARDIAC ARREST PROTOCOL

Traditionally, patients experiencing a cardiac arrest post heart surgery have been managed with the standard Advanced Cardiac Life Support (ACLS) protocol. The European Resuscitation Council developed and implemented new post-cardiac surgery cardiac arrest protocol, to prevent adverse outcomes. The Foothills Medical center performs 1,500 heart surgery cases a year. Our challenge was rapidly training a team of over 100 members to safely adopt a new Early Chest opening (ECO) protocol; this is a paradigm shift in the early postoperative management of our patients. This project used system integration simulations to test and implement a new protocol. System Integration simulations are defined as using simulation paired with debriefing to test the processes and systems in which we work including protocols using PSDA (plan, do study, act) cycles. An interprofessional team from the CVICU collaborated with eSIM provincial simulation program. They designed a project plan to contextualize the European guidelines and develop simulation scenarios. Other methods included the creation of a patient safety blue arm bad, the 'Ask or Announce' communication strategy, and the new assembly of the instrument tray.Qualitative data was collected; team performance was measured (Eg. MHPTS), and all improvements were captured including timed metrics (Eg. time to chest opening). This approach was successful and the protocol has since become well adopted. Multiple outcomes were realized including the identification of 'ECO' patients using the patient safety blue arm band; cognitive aids for calling for help; improved staff confidence with this significantly different protocol; and improved team effectiveness and sharing of mental model during a cardiac arrest. Simulation allows for recognizing hazards and making significant process improvements proactively. Critical to sustaining these changes is involving key stakeholders early. Staff are seeking further opportunities to engage in ECO simulation and debriefing activities suggesting an increased desire and awareness in maintenance of these skills. Building a simulation program has potential cost implications. Other limitations include sample variation, one hospital, one unit, and the unknown measurable transferability to practice.Next steps include a monthly ECO sim program, and training staff in the last steps of resuscitation in the protocol.





VIRTUAL HEALTH ENHANCES ASSISTIVE TECHNOLOGY REHABILITATION CARE IN THE COMMUNITY

The vision of Alberta Health Services (AHS) Virtual Health is 'Quality Care Anytime Anywhere'. Extending that care to people who may not be able to safely travel to a hospital or care center involves the right technology, along with the caring support and training of passionate team members. Two clinical centers in AHS currently offer rehabilitation services using assistive technology to clients in locations like schools or healthcare centers using technology. The I CAN Center for Assistive Technology at the Glenrose Rehabilitation Hospital and the Augmentative Communication and Educational Technology Service (ACETS) at Alberta Children's Hospital provide care to clients who struggle to attend in-person appointments because they are medically fragile or need an ambulance to travel safely. Until now the therapists have connected with clients using traditional videoconferencing to and from AHS sites, schools and healthcare centers. Recently they reached out to AHS Virtual Health to explore simpler, more flexible applications to connect to clients where they live and go to school.I CAN and ACETS teams began using Skype for Business (SFB) to connect to clients on March 1, 2018. Sessions include set-up and training on assistive technologies, assessment, and therapy. Benefits may include reduced travel for clients, families and clinicians, as well as more time in actual treatment and potentially shorter wait times. Clinicians have reported that they felt that using SFB during consults with clients was as good as an in person visit, was appropriate for their clinic and met their clinical needs. They were satisfied with the session outcomes and noted that they would be comfortable using SFB in similar clinical situations. In one circumstance the wait time for an assessment was reduced for a client who was housebound and would have found it very hard to arrange travel to the clinic. The teams also discovered that other clinicians could benefit by joining sessions (with permission) to learn about new and innovative assistive technologies. Next steps may involve trialing a camera with pan/tilt/zoom capability at the client's home, as well as connecting to long term care and school settings.

