

20<sup>th</sup> Annual Ottawa Hospital Patient Safety Conference

# Abstract Presenters



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## (01 Hip Fracture Time-to-OR: a QI initiative)

Authors: Mikhail N, McIlquham K, Papp S, Varshoei P, Lapner P

Organization: The Ottawa Hospital

**Introduction:** Wait time to surgery for hip fracture patients is an important quality of care metric. Earlier surgery is associated with better functional outcomes, shorter hospital stay, decreased duration of pain, decreased incidence of adverse events. National guidelines state that hip fracture surgery should be performed within 48 hours of admission.

**Objective:** The primary objective of this study was to determine whether an initiative to convert all hip fracture cases to D priority the morning following admission was effective in improving compliance to a target of at least 90% of patients receiving surgery within 48 hours of admission. The secondary objective was to determine the intervention's effect on quality metrics including the incident of urinary tract infection (UTI), delirium, and 120-day mortality.

**Methods:** A retrospective analysis was performed of prospectively collected data on a consecutive series of patients. The control group (group 1) consisted of patients treated at TOH prior to the intervention from May 1, 2022 to May 2, 2023. The study group (group 2) consisted of patients following the intervention on May 3, 2023 to Mar 24, 2025. Descriptive statistics were used for demographic variables, and T-tests, ANOVA, or chi-square statistics were used for continuous or categorical data as appropriate. A multivariable regression analysis was conducted to determine the association between age, sex, ASA score, group allocation, and 180-day mortality.

**Results / Learning:** A total of 1,686 patients were included in this study. Demographic variables including age and sex were similar between groups. ASA scores were higher in group 2 ( $p < 0.0001$ ). The median time from admission to surgery was 35 hours (IQR 20-47) in group 1 and 20 hours (IQR=13-31) in group 2 ( $P < 0.0001$ ). The number of patients who received surgery within 48 hours of admission were 443 in Group 1 (77.2%) and 991 in Group 2 (89.1%) ( $p < 0.0001$ ).

The multivariable regression model which controlled for ASA score, age, and sex demonstrated that there was a significant association between mortality and the number of hours to surgery ( $p < 0.0001$ ) which favoured faster time to OR, younger age, lower ASA score, and female sex. Increased time to OR was also associated with a higher incidence of delirium ( $p = 0.001$ ), and a higher incidence of UTI ( $p < 0.0001$ ).



**Conclusions:** In patients presenting with hip fractures, upgrading surgical booking the morning following admission significantly improved access to OR time. Increased time to OR was associated with a significant increase in 180-day mortality, incidence of delirium, and incidence of UTI.

**Future Directions:** Future steps include exploring options to protect and expand daytime orthopaedic trauma room access, and to complete regular audits to ensure our compliance remains about 90%.

**Disclosure:** The authors have no conflicts to declare.

## (02 Multimedia Approach to Post-Partum Education & Discharge (MAPPED): A Quality Improvement Initiative)

**Authors:** Samantha Beltran, Charles Mann

**Organization:** The Ottawa Hospital (TOH)

**Introduction:** The postpartum period is a vulnerable time when families must absorb essential health information while coping with recovery and newborn care. Traditional discharge teaching—often verbal or paper-based—can be inconsistent and overwhelming, leading to missed or misunderstood safety information and increased post-discharge concerns. To address these gaps, the MAPPED (Multimedia Approach to Postpartum Education & Discharge) initiative was developed to improve safety, comprehension, and consistency using bilingual digital video tools.

**Objective:** MAPPED aimed to reduce variability in discharge education and improve safety by delivering standardized, evidence-informed video content. Objectives included evaluating patient experience and tracking post-discharge advice calls as indicators of effective, safe discharge preparation.

**Methods:** Co-developed with patient partners and an interdisciplinary team, the MAPPED video series covers essential postpartum recovery and newborn care topics. Videos were made accessible via QR codes at the bedside and integrated into routine discharge teaching at The Ottawa Hospital's Civic and General Campuses. Patient experience data was collected weekly using Top Box scores from six Canadian Patient Experience Survey questions (Nov 15, 2024 – Apr 18, 2025). Frontline nurses recorded the frequency and nature of post-discharge advice calls weekly.

**Results / Learning:** Top Box scores improved across all six indicators, with increases between 2% and 33%. Weekly averages consistently surpassed baseline. Advice calls declined from 11 in the first week to zero by the final week. Implementation challenges



included staff documentation fatigue and response variability, but findings suggest enhanced patient preparedness and fewer post-discharge safety concerns.

Conclusions: MAPPED shows that digital education tools can support safer care transitions, reduce uncertainty, and ensure consistent, high-quality postpartum teaching.

Future Directions: Now fully implemented at both campuses, next steps include maintaining MAPPED as standard practice, expanding content to meet diverse family needs, and offering more language options to support equitable, safe care.

Disclosure: This project was supported by the Registered Nurses' Foundation of Ontario (RNFOO), Nursing Innovation Grant and the New Graduate Guarantee (NGG) Reinvestment Fund, and the OMNI Research group. No financial conflicts of interest to declare.

## (03 Evaluating First Positive Cultures in Burns: Rethinking Broad-Spectrum Antibiotic)

Authors: Sadeghighazichaki P. BSc. Mmgt., Rogers AD. FABA, MBChB, MSc., Elligsen M. BSc., MSc., Natanson R. PharmD, Mason S. MD, PhD, Lam P. W. BSc, MD, MSc, Wallace D. MD, MSc, FRCSC

Organization: Ross Tilley Burn Center, Sunnybrook Hospital

Introduction: Infection is a nearly universal complication among patients with major burns, yet guidance on early empiric antibiotic therapy remains limited. Broad-spectrum antibiotics are commonly initiated in the early phase of care but carry risks of antimicrobial resistance and drug toxicities.

Objective: The purpose of this study was to determine antibiotic use patterns and assess the need for and appropriate use of broad-spectrum antibiotics in major burn patients on first positive culture (FPC) results at the largest ABA certified burn center in Canada.

Methods: This single-centre retrospective descriptive study included patients aged >16 years admitted to the Ross Tilley Burn Centre from Jan 1, 2018, to May 1, 2023, with a total body surface area (TBSA) burn >20%. Patients were excluded if they were admitted with non-burn injuries (e.g. exfoliating skin condition, necrotizing soft tissue infection, etc.). Descriptive analysis was completed. The primary outcome was the proportion of different bacterial organisms on FPC. The secondary outcome was assessment of RTBC antibiotic use patterns associated with FPC. The tertiary outcome was assessment of admission MRSA screening practices and utility.





**Results / Learning:** A total of 114 patients with  $\geq 20\%$  total body surface area burns were included. Among 145 FPCs, the most commonly cultured sites were respiratory (55%) and wound (30%). The most frequently identified organisms were methicillin-sensitive *Staphylococcus aureus* (19%), *Haemophilus influenzae* (15%), *Enterobacter cloacae* complex (8%), *Escherichia coli* (7%), MRSA (7%), and *Pseudomonas aeruginosa* (6%). Notably, only 3% of patients who screened negative for MRSA on admission developed MRSA-positive cultures. Antibiotic therapy was initiated in 99% of patients with FPCs, most commonly with piperacillin-tazobactam (41%), vancomycin (16%), and cefazolin (14%). Dual therapy, typically piperacillin-tazobactam plus vancomycin, was used in 13% of cases. Sensitivity data demonstrated that meropenem (90%) and the combination of ciprofloxacin with cefazolin (83%) covered the highest proportion of isolates.

**Conclusions:** While piperacillin-tazobactam remains effective for early empiric use, our findings indicate that targeted alternatives—such as reserving meropenem for select cases or using ciprofloxacin plus cefazolin in appropriate patients—could provide comparable coverage while adhering to antimicrobial stewardship principles. A negative MRSA screening swab on admission demonstrated a high negative predictive value (~97%), supporting the withholding of vancomycin

in screen-negative patients. This study supports evidence-based antibiotic use in burn patients and underscores the need for local, data-driven stewardship.

**Future Directions:** This study supports evidence-based antibiotic use in burn patients and underscores the need for local, data-driven stewardship. We hope to investigate these findings further with prospective studies.

**Disclosure:** None.

## (04 Investigating Dyads in Nursing Education)

**Authors:** Talia Mia Bitonti, BScN, RN, MScN, PhD (C), Emilie Seguin-Jak, RN, BScN, Med , Dan Budiansky, MD , Darene Toal-Sullivan, PhD

**Organization:** Faculty of Nursing, University of Ottawa, Canada, The Ottawa Hospital – Civic Campus, Canada, Faculty of Education, University of Ottawa, Canada, Division of Neurosurgery, Department of Surgery, The Ottawa Hospital, Canada

**Introduction:** Nursing education faces challenges due to educator shortages and workforce pressures, leading to accelerated programs that can affect student confidence and preparedness. Self-confidence and communication are key to safe practice, yet many students report feeling underprepared for clinical responsibilities. Dyadic education—



pairing students to work collaboratively—has been proposed to improve teamwork, confidence, and stress management.

**Objective:** To evaluate the impact of dyadic teaching on nursing students' self-confidence, communication, and clinical skill development during clinical practicums.

**Methods:** A cross-sectional survey using Qualtrics was distributed to a convenience sample of nineteen undergraduate nursing students from a Canadian university. Participants reflected on their experiences in both dyadic and individual clinical placements. Quantitative and qualitative data were analyzed to assess differences in confidence, anxiety, efficiency, and communication.

**Results / Learning:** Among students who experienced both modalities, 87.5% reported greater self-confidence and 75% reported less stress and anxiety when working in dyads. Two-thirds of those who had never worked in dyads believed pairing would improve confidence and communication. Thematic analysis revealed enhanced teamwork, emotional support, and problem-solving capacity among dyadic learners, though some reported stress related to task allocation.

**Conclusions:** Dyadic clinical teaching promotes nursing students' self-confidence, communication, and perceived clinical skill acquisition. It provides emotional support and fosters teamwork, though attention is needed to manage task division and ensure progression to independent practice.

**Future Directions:** Further research is warranted to evaluate long-term outcomes of dyadic learning and its effects on readiness for independent clinical practice. Structured facilitator training could optimize implementation of dyadic models in nursing curricula.

**Disclosure:** The authors declare no conflicts of interest or funding support.

## (05 Nutritional optimization to reduce complications following surgery for Crohn's disease: A Quality Improvement Project)

**Authors:** Onyinyechukwu Esenwa, MD, Barbara Bielawska, MD, MSC, FRCPC

**Organization:** Department of Medicine, University of Ottawa, Ottawa, Ontario, Canada, The Ottawa Hospital, Ottawa, Ontario, Canada

**Introduction:** Patients with Crohn's disease (CD) who undergo CD surgery are at increased risk of malnutrition and postoperative morbidity and mortality. Preoperative nutritional intervention can reduce complications and improve outcomes. Ideally, nutritional



assessment occurs as early possible once decision is made to pursue surgery. There is currently no standardized nutritional assessment and intervention pathway for patients undergoing elective/semi-elective CD surgery at The Ottawa Hospital (TOH), which we suspect leads to worse patient outcomes.

Objective: 1) Assess the current rates of nutrition assessment in patients undergoing elective/semi-elective CD surgery at TOH; 2) Determine what proportion of these patients develop post-operative complications.

Methods: We performed a retrospective chart review on 121 patients who underwent elective/semi-elective CD surgery at TOH between June 2019 and October 2024. Patients were excluded if they had a diagnosis of Ulcerative Colitis or recent malignancy. Data collected included whether nutrition assessment was done, and the timing in relation to surgery. Outcome measures included 30-day post-operative complications (infection, anastomotic leak, abscess formation, reoperation), 90-day fistula development, and 90-day re-admission related to the surgery.

Results / Learning: 75 patients met inclusion criteria. 70.7% of those who met inclusion criteria received a nutrition assessment. 41.3% had their assessment before surgery, and only 28% were assessed at least 7 days before surgery. 46.7% had one or more negative outcomes: post-operative complications, fistula development, reoperation or related re-admission. Of these patients, 42.9% had a presurgical nutrition assessment, compared to 45% of patients without negative outcomes.

Conclusions: Patients with CD undergoing surgery are often malnourished and benefit from a pre-operative nutrition assessment. At TOH, the majority of patients do not receive a nutrition assessment before CD surgery and many who do have it too late to derive benefit. Close to half of the patients who undergo CD surgery at TOH develop

post-operative complications. Our study shows that current practices at TOH fall short of the expected standard of care, which highlights a need for an intervention to standardize pre-surgical nutrition assessments.

Future Directions: Findings may help guide the development of a nutrition intervention pathway.

Disclosure: None.



## (06 Assessing red blood cell transfusion trigger and risk factors in kidney transplant recipients at The Ottawa Hospital)

Authors: Jayson Kreidstein BSc, Dr. Julia Morrison MD, Shahzeb Khan, Dr. Ryan McGinn MD MSc FRCPC

Organization: The Ottawa Hospital (TOH)

**Introduction:** Kidney transplantation is the preferred treatment for end-stage renal disease. Anemia is nearly ubiquitous and 30-50% of patients receive a red blood cell (RBC) transfusion during their transplant hospitalization. RBC transfusion is associated with graft dysfunction and decreased survival. Most transfusions are limited to 1-2 units, making this a potentially modifiable event. Over 100 kidney transplantations occur annually at TOH, but transfusion rates and the hemoglobin trigger remain unknown.

**Objective:** This quality improvement initiative aims to:

1. Identify the incidence and number of perioperative RBC transfusion in kidney transplant recipients at TOH.
2. Estimate the hemoglobin threshold ("trigger") for perioperative RBC transfusion in patients undergoing kidney transplantation.

**Methods:** We conducted a retrospective observational chart review of all kidney transplant recipients (living and deceased donors) at TOH from January 1, 2023, to December 31, 2024 (n=234). Data extraction is ongoing. Our primary outcome is receipt of RBC transfusion on postoperative days 0-7 (binary). Secondary variables will be used to ascertain predictors of perioperative transfusion including pre- (preoperative hemoglobin, comorbidities), intra- (deceased or living donation, estimated blood loss) and postoperative variables (graft function, estimated by the need for dialysis and serum creatinine). Data will be presented using descriptive statistics (mean when normally distributed and median for data not normally distributed, with 95% confidence intervals). Multilevel logistic regression will estimate odds ratios for independent predictors of perioperative RBC transfusion.

**Results / Learning:** Data collection is ongoing. We expect to identify the proportion of kidney transplant recipients receiving perioperative transfusion, the average number of units administered and when, and the hemoglobin concentration at which transfusion was initiated. These results will establish baseline transfusion practices at TOH and highlight potential opportunities for patient blood management optimization.



**Conclusions:** RBC transfusion during kidney transplantation is linked to adverse graft and patient outcomes. By characterizing transfusion incidence and triggers, this study aims to provide critical baseline data to inform quality improvement initiatives and minimize unnecessary transfusion in kidney transplant recipients.

**Future Directions:** These findings may support the development of institution-specific patient blood management strategies to improve graft survival and patient outcomes.

**Disclosure:** These findings may support the development of institution-specific patient blood management strategies to improve graft survival and patient outcomes.

## (07 Reducing outdated policies and procedures at a pediatric hospital)

**Authors:** Naazish Shariff, Rebecca Brooke, Jessica Cojocari, Julie Breau, Danielle Simpson

**Organization:** Children's Hospital of Eastern Ontario (CHEO)

**Introduction:** In 2022, CHEO had 345 policies and 96 procedures (441 controlled documents). 59% of policies and 89% of procedures were outdated (4+ years old). This was a risk to patient safety as it was hard for end users to find the correct documents and the correct version. Outdated policies also represent a liability risk for the organization.

CHEO has a policy-centric culture. Clinicians and administrative staff expect to refer to policies for clinical guidance and administrative practices. Many existing policies contained significant clinical details. CHEO team members expect that policy is one of the primary vehicles for communicating roles and responsibilities.

**Objective:** Reduce the number of controlled documents managed by the policy team from 441 to 350. Reduce the percentage of outdated policies and procedures from 66% to 50%.

**Methods:** Using a quality improvement approach, a process map of the review process identified time-consuming steps and critical upstream information. A pareto approach identified the authors and departments with the most outdated documents. The 5 why's identified organizational beliefs preventing document revisions.

**Results / Learning:** Review time went from 172 to 75 days for major review and 59 to 17 days for minor review. Key changes included reducing committee review, standardizing the process of committees' administrative assistants, and simplifying the process for single-department procedures.



Enforcing the definition of a policy, procedure, and standard work reduced the number of controlled documents from 441 to 375. The total number expired reduced from 66% to 55%. Policies remain outdated because authors are hesitant to move the information into another document type and because of competing priorities for authors.

Conclusions: Improvements to the review process reduced the time to update a policy, but this did not reduce the overall number of policies. A strict definition of document types was more effective at reducing the overall number of controlled documents. Organizational culture about reliance on policy is a primary barrier to streamlining controlled documents.

Future Directions: We continue addressing organizational culture about policy and procedure. CHEO's Intranet recently moved to SharePoint, allowing for stronger version control. We are now integrating the review process into SharePoint, providing leaders with high visibility of their policies and procedures.

Disclosure: No conflicts.

## (08 Blood Administration: Insights from the 2023 Provincial Bedside Audit)

Authors: Tracy Cameron, Rebecca Barty, Donna Berta, Alexis Iob, Dorien Ruijs, Ruth Sebastian, and Alison Wendt

Organization: Ontario Regional Blood Coordinating Network, McMaster University, Ottawa Hospital Research Institute, Sunnybrook Health Sciences Centre, Headwaters Health Care Centre

Introduction / Objective: The 2023 Provincial Bedside Audit of Blood Administration aimed to evaluate compliance with established transfusion requirements across multiple healthcare facilities. This audit reiterates the need for safe, consistent blood administration practices to enhance patient outcomes and support adherence to transfusion standards.

Design and Methods: A total of 309 component transfusion audits were conducted. The audit focused on five key sections: Pre-transfusion checks, patient identification checks, component checks, procedure checks, and post-transfusion documentation. Compliance was measured against specific criteria within each section, with data collected by direct observation and review of medical records. Compliance rates were categorized as optimal (100%), acceptable (95-99%), cautious observation (91-94%), and red alert requires investigation ( $\leq 90\%$ )

Results / Learning:



**Pre-Transfusion Checks:** Compliance was encouraging, with 100% documentation of authorized prescriber order and 95% documentation of informed consent.

**Patient Identification Checks:** Compliance was assessed using three parameters, achieving overall compliance rate of 90%. Each individual parameter had a compliance rate of 95% or higher. Additionally, these checks were accurately documented in the medical record 99% of the time.

**Component Checks:** The composite of parameters for ABO/Rh(D) compatibility verification achieved 92% compliance. For transfusions where blood group was not identical, compatibility was validated 98% of the time.

**Procedure Checks:** Use of appropriate blood administration tubing and IV fluids was nearly optimal (100% and 99%, respectively). Compliance for the composite of five vital signs (temperature, blood pressure, pulse, respiration, oxygen saturation), at 82%, is a red alert necessitating investigation.

**Post-Transfusion Documentation:** The transfusion end time was documented in 92% of audits, with 97% of these transfusions completed within the safe 4-hour timeframe.

**Conclusions:** The audit identifies areas of optimal/acceptable compliance as well as and highlights opportunities for improvement, particularly patient identification and component checks, vital signs and transfusion end time documentation. The findings underscore the importance of continuous assessment and education to maintain and enhance transfusion safety. Future audits should focus on addressing the identified gaps and endorsing adherence to best practices.

**Disclosure:** None.

## (09 Interprofessional Collaborative Practice – A Safety Approach to Care in the Home Care Environment)

**Authors:** Josée Ravary, RN MScN, Mychèle Rhéaume RN BScN MBA (c), Marcelle Thibeault RN BScN MHA

**Introduction:** Interprofessional collaborative practice is increasingly recognized as a vital model for delivering client-centered care, especially in home care settings where patients often present with complex medical needs. As healthcare shifts from tertiary to primary care, embedding a culture of collaboration within organizational workflows becomes essential to ensure safety, responsiveness, and coordinated care.





**Objective:** This abstract presents a case study from within the organization where insufficient collaboration among healthcare providers led to fragmented care for an elderly client with high medical complexities. The lack of communication and coordination resulted in hospitalization, underscoring the risks of siloed practice and the need for structured interdisciplinary partnerships to increase the safety of the client

**Methods:** The case study was used to identify barriers to effective interprofessional collaboration using a root cause analysis. Organizational reflection and analysis informed the development of a future framework aimed at improving collaborative care delivery.

**Results / Learning:** The case revealed that fragmented communication and undefined roles among providers can compromise patient safety. In response, the organization identified key elements to enhance collaboration: shared goals and values, clearly defined roles, structured communication channels, joint decision-making, case conferencing, and continuous feedback mechanisms. These components are designed to foster trust, accountability, and mutual respect across disciplines and organizations.

**Conclusions:** The case study illustrates the critical need for structured interprofessional collaboration in home care. By implementing a tailored framework grounded in evidence-based practices, organizations can improve care coordination and safety outcomes. Prioritizing collaboration not only strengthens provider relationships but also ensures that clients receive comprehensive, responsive, and safe care.

**Future Directions:** We are aiming to roll out a structured, interprofessional collaborative approach in home care to improve patient safety—especially for clients with complex needs by using evidence-based models adapted to suit the home care environment, focusing on operational integration and team alignment. This includes implementing regular case rounding, defining clear roles, establishing strong communication channels, and fostering shared decision-making across teams and organizations. By embedding these practices into daily workflows, our goal is to create a safer, more coordinated, and client-centered care environment.

**Disclosure:** This work was conducted as part of internal quality improvement and received no external funding. The authors have no conflicts of interest to disclose.





## (10 Improving Referral Pathways Through Patient Feedback: Lessons from eConsult Implementation)

**Authors:** Brynn O'Dwyer, MSc, Geetha Mukerji, MD, MSc, Caitlin Simpson, Susan Humphrey-Murto, MD, Clare Liddy, MD, MSc, Heather Lochnan, MD, Erin Keely, MD

**Organization:** eConsult Centre of Excellence, The Ottawa Hospital

**Introduction:** Limited access to specialist care remains a challenge in Canada. Delayed or declined referrals leave patients and primary care providers (PCP) without support, creating frustration and prolonged wait times that can negatively affect health outcomes. To address these issues, the eConsult Centre of Excellence (eCOE) housed at The Ottawa Hospital, developed Triaging Referrals to eConsult (TReC), a digital health innovation embedding specialist advice directly into local referral workflows. Given that patient engagement is a key dimension of care quality, a survey was implemented to capture patient perspectives on TReC and inform iterative improvements.

**Objective:** To describe the implementation of a patient experience survey and highlight lessons learned that can guide quality improvement and support patient-centered care initiatives.

**Methods:** With REB exemption and QI approval, a bilingual (English/French) patient experience survey was co-designed with patient advisors and implemented Jan 2024. Survey questions included eligibility screening, declarative questions (e.g., awareness of referral and receipt of specialist advice), evaluative questions (e.g., perceived resolution and satisfaction), and an open-ended section for qualitative feedback. Surveys were distributed six weeks after referral conversion to TReC via LimeSurvey or mail, based on patient communication preferences. Each patient received only one survey, regardless of the number of TReCs. Iterative refinements were made through multiple small PDSA cycles.

**Results / Learning:** Between January 2024 and Sept 2025, over 1000 patients initiated the survey (response rate: 23%), providing insights into the referral experience. Findings revealed systemic communication gaps: while 84% of patients were aware a referral had been submitted, only 49% knew their primary care provider had received specialist advice, highlighting opportunities to strengthen the referral communication loop. Operational insights from survey implementation informed key refinements. The web-based platform improved data quality by preventing ineligible participation and reducing administrative burden, while multilingual availability promoted inclusivity and equity. Adjustments

included extending the survey distribution window to allow time for PCPs to communicate advice and adding referral specialty

details to invitations to reduce confusion among patients with multiple referrals. Mailed surveys were discontinued due to low reach (response rate: 1%) and the administrative inefficiencies associated with manual distribution. To preserve confidentiality and remain within the eCOE's scope, patient inquiries about referral details and clinical guidance were referred back to their PCPs.

**Conclusions:** Establishing a structured mechanism for capturing patient feedback is essential for advancing patient-centered care. Findings highlight that a web-based platform is a practical and efficient tool for gathering patient feedback to support process improvement, while also demonstrating important considerations for surveying patient populations. These insights may inform the design of other digital health initiatives focused on improving patient engagement and service quality.

**Future Directions:** Building on these lessons, future efforts will analyze patient feedback to further integrate patient perspectives within the TReC model. Insights from our findings have informed early collaborations with hospital teams to explore innovations (e.g., MyChart) that aim to reduce silos in the referral continuum and improve communication of referral outcomes. These efforts will support more coordinated, transparent, and patient-centered referral experiences.

**Disclosure:** None.

## (11 Recognition of Patient Deterioration - Escalation and Communication)

**Authors:** Ruth Pagé RN, BNSc, MN; Ashley Malloff RN, MHA, PMP, ENC(C), CPPS, CHE; Mia Van Bommel PT, MHE

**Organization:** Queensway Carleton Hospital

**Introduction:** Early recognition of patient deterioration can lead to improved patient outcomes. By relaying and responding appropriately, the risk of severe complications, mortality and morbidity can be reduced.

**Objective:** The timing and quality of the escalation and communication of deterioration have been identified as essential factors in achieving these positive outcomes.



**Methods:** Queensway Carleton Hospital (QCH) identified a working group to focus specifically on escalation practices and clear and timely communication of patient deterioration.

To identify barriers in communicating patient deterioration, focus groups were held with front-line staff, a pre-survey was conducted with on-call physicians and Rapid Response Team members, and interviews were completed with medicine and surgery physicians. The pre-survey assessed the timing and quality of information shared during calls, while interviews explored expectations and challenges in receiving timely, relevant clinical details.

**Results / Learning:** The findings from staff engagement activities informed the re-launch of the CHAT communication tool (Current Condition, History, Assessment, Treatment), designed to support structured, interdisciplinary communication during patient deterioration. The communication tool was distributed as badge buddy cards and scratch pads across inpatient medicine and surgery units. Educational posters were also created to highlight clinical indicators warranting escalation and to encourage staff to review documentation and consider available resources before initiating a call. To reinforce learning, a micro-learning video was developed as part of the Clinical Speaking series, demonstrating the application of the CHAT tool through a case study.

**Conclusions:** A post-implementation survey showed the tools were well received by staff, with reported improvements in both the quality and timing of calls related to patient deterioration.

**Future Directions:** Future work will be focused on the recognition of and response to patient deterioration.

**Disclosure:** None.

## (12 Optimizing 'Dose Too Close' Our Practice Advisory: Mitigation Strategy for Clinician Alert Fatigue

**Authors:** Sarah Gaudet, MN, RN, ENC(c), Barbara d'Entremont, MN, RN, Jessica Chu, BScN, RN

**Organization:** The Ottawa Hospital.

**Introduction:** Electronic health records (EHRs) are equipped with tools that allow for clinician decision support for in real-time. OurPractice Advisories (OPA) are a central tool in the Epic decision support system that serve as reminders or warnings to clinicians during



their workflows. Integration of these tools can reduce errors and improve clinician adherence to organizational expectations.

However, if these types of tools are not performing as expected and are occurring in high frequency, they can then lead to a well -documented safety risk phenomenon known as 'Alert fatigue'. Clinicians experiencing Alert fatigue become desensitized to frequent alerts, ignoring both trivial and critical warnings which can pose a significant safety risk to patients.

One OPA used within Epic for the Atlas Alliance is a 'Dose Too Close' warning, which will generate if the clinician attempts to document a medication administration and the system calculates that the timing is potentially wrong, or 'too close' to the last administration. In early 2022, the Atlas Alliance was notified that the incident rates of this OPA were in the top 10% of all Epic customers.

With this higher than expected frequency of this OPA, the concern was that its value in contributing to safe medication practices would be lessened by potential alert fatigue.

**Objective:** The objective of this work was to safely decrease the number of times the "Dose too Close" OPA was generating.

**Methods:** Members of the Digital Solutions team (Willow, ClinDoc, and Orders) and members of the Nursing Professional Practice team reviewed reports extracted by Epic on the 'Dose too Close' OPA. Using PDSA cycles, changes were proposed, agreed on and made to the OPA build within Epic which was followed by generation and reassessment of new usage data post these changes.

The first PDSA cycle involved changing the buffer that would calculate the appropriate time span needed between medication administrations for different non-scheduled frequencies.

The second PDSA cycle addressed individual frequencies (i.e. as needed, once as needed, code medication, etc.) that should not be included in the OPA.

The third PDSA cycle targeted the optimization of a medication frequency that was triggering about 20% of this OPA's warnings

**Results / Learning:** With these changes to the OPA build over 4 years the incidence rate went from 300 000 per quarter to current state which is 50 000 per quarter. This current incidence rate is in line with typical usage patterns from other Epic organizations.

Optimizing this tool required the perspectives and expertise of both clinical and Digital Solutions to ensure comprehensive review.



**Conclusions:** Decision support system alerts represent important tools in EHRs that when used judiciously and appropriately contribute to a culture of patient safety. However, when not functioning as intended, their value is diminished as clinicians are impacted by alert fatigue and are less likely to respond to the alert messaging. Realigning the function for this tool to intended state allows for it to be recognized as valuable part of patient care for the clinician end users

**Future Directions:** The incidence rate of this OPA is now within an expected usage range. Annual monitoring is completed for OPA instances within the Atlas Alliance and this particular OPA will be flagged to note any variance. Further investigation would then begin following processes previously established in the work to date.

**Disclosure:** Nothing to disclose.

## (13 GAIN: Gynecology Access Improvement Network – Reducing Delays in Tertiary Referral Processing )

**Authors:** Charles Mann, Dr. Megan Gomes, Dr. Nika Alavi-Tabari, Maryann Towns & Nancy St-Germain

**Organization:** The Ottawa Hospital

**Introduction:** At the Shirley E. Greenberg Women's Health Centre (SEGWHC), the Minimally Invasive Gynecological Surgery (MIGS) and Complex Gynecology clinics receive up to 3600 incoming referrals annually. Both The Ottawa Hospital (TOH) and the College of Physicians and Surgeons of Ontario require incoming referrals be acknowledged within 14 days (10 business days). As of September 1, 2024, triage targets were met 81.5% (MIGS) and 82.9% (Complex Gynecology) of the time. Triage responsibilities were shared among clinic physicians without dedicated time, resulting in nearly 1 in 5 referrals exceeding the target. Rising demand for tertiary gynecological services has further strained this model, contributing to delayed triaging, prolonged wait times for consultation, and extended burden of disease for patients.

**Objective:** To increase the percentage of new MIGS and Complex Gynecology referrals triaged within 14 days from approximately 80% to 95% by Dec 31, 2025.

**Methods:** This quality improvement project evaluated triage performance for MIGS and Complex Gynecology pre-and post-implementation of a redesigned process. An internal scan of ambulatory care settings at TOH informed the triage process redesign. MIGS and Complex Gynecology physician teams defined inclusion and exclusion criteria, required diagnosis, communication protocols, priority codes, and referral escalation pathways. A



dedicated Triage Nurse Navigator role was introduced to manage all incoming referrals, supported by standardized documentation and decision-making tools.

Results / Learning: By June 30, 2025, triage target achievement improved to 94.5% in MIGS and 91.5% in Complex Gynecology, demonstrating sustained improvement following the implementation of the Triage Nurse Navigator role.

Conclusions: With the appropriate clinical decision-making supports, a dedicated Triage Nurse Navigator can provide an efficient, effective, and sustainable approach to timely referral acknowledgement amid rising tertiary gynecology referral volumes.

Future Directions: Expansion of the Triage Navigator model to other SEGWHC clinics is planned to standardize and sustain timely referral triage.

Disclosure: None.

## (14 Reducing *Clostridoides difficile* Infections in a Community Acute Care Hospital Using LEAN Methodologies)

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Organization: Queensway Carleton Hospital

Introduction: *Clostridioides difficile* infection (CDI) remains a significant cause of morbidity and mortality in hospitalized patients, leading to prolonged lengths of stay, increased readmission rates, and higher healthcare costs. It is estimated that the total cost to treat a single case of nosocomial CDI ranges between \$7,000 and \$11,000. In addition, CDI is associated with higher rates of 30-day rehospitalization. Between January 2023 and September 2024, a 355-bed acute care hospital observed a concerning upward trend in nosocomial CDI incidence rates, prompting an in-depth investigation.

Objective: The primary objective of this investigation was to reduce the rate of nosocomial CDI by identifying and addressing the root causes of the observed increase. Infection rates during the pre-intervention phase (January 2023–September 2024) were compared with rates from the post-intervention phase (October 2024–August 2025) to assess the impact of targeted interventions.



**Methods:** The Infection Prevention and Control (IPAC) team initiated a comprehensive quality improvement (QI) initiative. Using established QI methodologies, including Gemba walks and root cause analyses, the team identified key barriers to effective infection prevention practices. Interventions included: reimplementation of vaporized hydrogen peroxide disinfection for rooms contaminated with *C. difficile* spores, targeted education for staff, providers, and visitors, de-cluttering of patient rooms to facilitate cleaning, and ensuring the consistent availability of sporicidal wipes on units with CDI patients. Statistical process control charts were employed to monitor trends and measure the effectiveness of these interventions over time.

**Results / Learning:** The average incidence rate of CDI decreased from 0.16 cases per 1,000 patient days in the pre-intervention period to 0.10 cases per 1,000 patient days in the post-intervention period. Engagement with front-line staff proved to be a critical success factor, enabling the identification of practical challenges in implementing best practices and fostering ownership of the improvement process.

**Conclusions:** The initiative resulted in a reduction in nosocomial CDI rates, demonstrating the effectiveness of tailored, evidence-based interventions. Other healthcare facilities can benefit from applying similar QI frameworks to reduce patient harm, and improve patient outcomes.

**Future Directions:** Future directions include expanding QI methodologies to target other healthcare-associated infections and reportable indicators.

**Disclosure:** The authors report no conflicts of interest relevant to this article.

## (15 Enhancing Patient Safety Culture Through Nursing Professional Development: A Nurse Retention Strategy)

**Authors:** Ibrahim Akbar, RN, BScN, CPMHN(C) Lindsey Vanderheiden, RN, BScN, MScN, Kierstin Kinlin, RN, BScN, MPH, CNCCP(C), Christina Cantin RN, BScN, MScN, PhD, PNC(C), Kristal Hennigar, RN, Michael Weedmark, RN, MEd, CpedN(C), and Alison Girouard, RN, BScN, MHA

**Organization:** Children's Hospital of Eastern Ontario (CHEO).

**Introduction:** This Advanced Clinical Practice Fellowship aimed to design of an organizational professional development strategy to promote nursing retention. The fellowship emerged from a critical workforce challenge: 69% of Canadian nurses plan to leave their positions within five years (Grinspun et al., 2022), representing challenges to





patient care quality, increased workload pressures, and loss of clinical expertise and organizational knowledge. The Canada Nursing Retention Toolkit highlights professional development (PD) opportunities as one of eight critical retention strategies and informed this work (Health Canada, 2024).

**Objective:** This Advanced Clinical Practice Fellowship aimed to design an evidence-based organizational professional development strategy to improve nursing retention, thereby strengthening patient safety culture.

**Methods:** A mixed-methods approach was employed: analyzing qualitative and quantitative organizational data; conducting a literature review on nursing professional development as a retention strategy, synthesizing 30 studies; benchmarking through interviews with nursing leaders from four Ontario healthcare organizations and an innovative professional development program; and engaging frontline nurses and managers through co-design discussions.

**Conclusions:** The strategic professional development model directly enhances patient safety through developing nursing expertise in high-risk clinical areas, stabilizing nurse staffing, and fostering a culture of evidence-based practice. By retaining experienced nurses and developing specialized competencies, the program strengthens the organization's capacity to identify, prevent, and respond to patient safety risks. The model's emphasis on nurse-led innovation and shared governance empowers frontline staff to drive safety improvements and contribute to organizational resilience. The fellowship demonstrated that strategic professional development serves as both a retention strategy and a patient safety initiative.

**Future Directions:** The framework's core elements, including protected time allocation, specialty skill development through mentorship, and structured innovation projects, resonate across interprofessional groups, warranting future expansion. This would position the fellowship model as organizational infrastructure rather than nursing-specific programming, expanding retention impact while distributing implementation costs.

**Disclosure:** This fellowship opportunity was jointly funded by the Registered Nurses Association of Ontario (RNAO) and the Children's Hospital of Eastern Ontario (CHEO). The primary author is employed as a Registered Nurse at CHEO, the organization that is the subject of this fellowship, and has no financial interests to disclose.





## (16 Severe Maternal Hypertension: Time is Ticking, Treatment must Rush! A Quality Initiative)

Authors: Ana Werlang, Asma Abdulrashid, Jade Choo-Foo, Sydney Ruller, Paloma O'Meara

Organization: The Ottawa Hospital

**Introduction:** Severe hypertension (sHTN) is associated with severe maternal morbidity, including stroke and myocardial infarct. Timely treatment is associated with reduced severe maternal morbidity. The Society of Obstetrics and Gynecology of Canada (SOGC) 2022 guidelines recommend sHTN be treated emergently within 60 minutes of diagnosis. Target blood pressure should be achieved within 60 minutes is preferable. At the Ottawa Hospital, there is no clear directive on the timely administration of antihypertensive medications for the management of hypertensive emergencies in pregnancy or postpartum.

**Objective:** We aimed to identify any gaps in care when providing timely treatment of sHTN and identify root causes for delays in treatment according to SOGC's standard of care.

**Methods:** We conducted a retrospective chart review of TOH Obstetric triage records from January to June 2022. Patients with a confirmed diagnosis of sHTN (SBP equal or greater than 160mmHg and/or DBP equal or greater than 110mmHg) who were at least 20 weeks' gestational age and less than 6 weeks postpartum were included. We excluded patients whose BP re-checked in 15 minutes did not meet the sHTN threshold. Our primary outcome was to define the time to treatment (TTT) in minutes; our secondary outcome was time to target BP (less than 160/110mmHg) in minutes. We performed a root-cause analysis of cases where TTT exceeded 60min to identify potential causes for the delay and propose quality improvement strategies to address this gap in care.

**Results / Learning:** Of 240 patients identified, 32 met inclusion criteria. Most (80%) presented antepartum with a mean gestational age of  $33 \pm 5.5$  weeks. The mean presenting SBP was  $168 \pm 11.6$  mmHg and DBP  $104 \pm 11.8$  mmHg. We found that only 47% of patients received their first dose of antihypertensive within 60 minutes with a median TTT of 65 min (IQR = 108). Similarly, 56% of patients achieved a non-severe target BP within an hour, with a median time of 55 min (IQR = 112). Our root-cause analysis identified causes of delay in medication administration for patients who had a TTT exceeding guideline recommendations. The most common causes were: patients sent to triage from outpatient clinic untreated (n=5), labour pain interpreted as cause for sHTN (n=3), language barriers (n=2), and maternal stress due to stillbirth (n=2). Less common causes were: presenting to triage at shift change, verbal orders and lack of documentation. A Pareto chart showed that



acting on the first 3 causes would improve by 80% of cases of delay in timely treatment of sHTN.

**Conclusions:** Our project identified the main causes for delay in treating sHTN in Obstetric triage. Our results will enable us to design a plan to improve TTT in women who present with sHTN and achieve standard of care. This would enable education of our teams to ensure antihypertensives are promptly administered in case of sHTN.

**Future Directions:** Propose a standard operating procedure based on SOGC guidelines for sHTN treatment in OB triage, specifying the choice of drugs and timelines to administer them, timelines to treat and achieve BP targets, and an order set embedded in EPIC to standardize antihypertensive orders.

**Disclosure:** Nothing to disclose.

## (17 Applying a systems-level safety framework to identify facilitators and barriers in improving safety in fetal health surveillance using electronic fetal monitoring)

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**Organization:** HIROC, Royal Victoria Hospital, Orillia Soldiers' Memorial Hospital

**Introduction:** Challenges in intrapartum fetal health surveillance (FHS) using electronic fetal monitoring (EFM) remain a major area of preventable risk and harm for birthing persons and infants. Several approaches may inform understanding of systemic factors that influence safety. For example, analysis of medico-legal claims involving FHS, particularly EFM, reveal a variety of potential contributing factors including interprofessional communication, culture, and teamwork. Capturing the daily interactions between people, tools, tasks, and environments in which EFM is used may reveal deep insights and opportunities to improve safety in FHS in this complex socio-technical system. Healthcare Insurance Reciprocal of Canada (HIROC) engaged in a multi-site pilot study with two of its Subscriber hospitals, Orillia Memorial Soldiers' Hospital (OSMH) and Royal Victoria Hospital (RVH), to identify opportunities to improve FHS safety in a Canadian perinatal context.

**Objective:** To investigate barriers and facilitators to fetal health surveillance (FHS) using electronic fetal monitoring (EFM) by applying a systems-level safety framework at two Canadian hospitals that provide perinatal services. The Systems Engineering Initiative for



Patient Safety 101 (SEIPS 101) is a framework for modeling components of a healthcare work system, processes and their associated outcomes. This systems-level investigation at OSMH and RVH enabled HIROC human factors specialists in partnership with clinical leaders to identify opportunities to improve safety, and subsequent projects for deeper investigation.

**Methods:** Two HIROC safety and risk management specialists conducted site visits for four days at OSMH and five days at RVH. The specialists reviewed relevant hospital protocols and procedures, and while on-site, engaged in contextual inquiry, semi-structured interviews and focus groups with 27 and 25 participants, respectively at OSMH and RVH. Participant roles included nurses, midwives, obstetricians and physician assistants to understand current processes, as well as biomed technicians to understand equipment functionality and capabilities. After the site visits were completed, the HIROC specialists analysed the data using the SEIPS 101 framework, specifically using the People-Environments-Tasks-Tools (PETT) tool to identify barriers and facilitators to safe FHS care using EFM.

**Results / Learning:** The preliminary analysis of the contextual inquiry data, interviews and focus groups revealed several common themes as barriers and facilitators to safe FHS care using EFM. Facilitators included having strong interdisciplinary teamwork and using proper terminology as a standard to describe EFM tracings. Barriers included complex EFM strips that may lead to differing interpretations between healthcare providers. Additionally, unique findings were observed between sites, such as having team members as certified FHS instructors to provide interdisciplinary training and having physician assistants on staff to support both nurses and physicians during perinatal care. These unique findings support the understanding that care and its associated risks are greatly impacted by local context.

**Conclusions:** This collaborative work between HIROC, OSMH, and RVH highlights the importance and value of developing a common understanding of the barriers and facilitators that are both shared and unique to Canadian hospitals providing perinatal care. Employing a systems-level safety framework and being onsite to conduct activities such as contextual inquiry and focus groups allowed HIROC specialists to better understand the work culture and workflows.

**Future Directions:** HIROC, in collaboration with these two Subscriber hospitals, has just begun to identify areas for further investigation in FHS using EFM within their respective organizations, and with other healthcare organizations across Canada. The learnings from this multi-site pilot study serve as a basis for future projects, and the development of safety and risk management tools and resources for Canadian healthcare organizations.

**Disclosure:** None.



## (18 Enhancing Riverside Capabilities for Hysterectomy (EnRiCH): Integrating Laparoscopic Hysterectomy into Ambulatory Surgical Care to Reduce the Gynecologic Surgery Backlog)

Authors: Innie Chen, MD, MPH; Megan Gomes, MD, MScHQ; Mahmoud Abdelmotalib, MD; Kate Duke, RN, BScN; Sylvain Gagne, MD; Katie Tsang, RN; Heidi Easey-Dannehl, RN, BScN, MEd, Lindsay Mattice, RN, BScN; Chantal Beauchamp, RN, BScN; Sukhbir S. Singh, MD

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Introduction: The COVID-19 pandemic exacerbated pre-existing backlogs in gynecologic surgery, resulting in prolonged wait times and increased pressure on tertiary care resources.

Objective: This quality improvement (QI) initiative aimed to introduce total laparoscopic hysterectomy (TLH) with same-day discharge to an ambulatory surgical facility (Riverside Campus), to help alleviate pressure on tertiary facilities.

Methods: We used a multi-phase Plan-Do-Study-Act (PDSA) model at an ambulatory hospital. Key stakeholders (surgeons, anesthesiologists, nursing, and hospital administration) collaborated to introduce standardized laparoscopic equipment and evidence-based discharge protocols. The intervention was rolled out in three phases: (1) pilot procedures with a limited group of surgeons, (2) expansion to high-volume surgeons, and (3) inclusion of all gynecologic surgeons. Surgical feasibility, clinical outcomes, and resource utilization were evaluated through descriptive analysis.

Results / Learning: From Oct/2023-Mar/2025, 41 laparoscopic hysterectomies were performed in the ambulatory setting. The mean age was  $39.2 \pm 11.6$  years, and mean BMI  $27 \pm 5.8$  kg/m<sup>2</sup>. Most patients were ASAII (53.7%) or ASAIII (43.9%). Indications included pelvic pain (45.0%), gender affirmation (17.5%), hereditary cancer syndromes (15.0%), abnormal uterine bleeding (12.5%), premalignant lesions (5.0%), and pelvic masses (5.0%). The mean wait time from consent to surgery was  $203.1 \pm 180.5$  days. Mean times were  $164 \pm 30$  minutes in the operating room,  $253 \pm 85$  minutes in recovery, and  $418 \pm 85$



minutes for total length of stay. Pain score was  $2.3 \pm 1.3$  at discharge and  $2.7 \pm 1.4$  on POD1. 10/41 (24.4%) patients presented to ED following surgery for pain, bleeding, or infection, and 2/41 (4.9%) were readmitted. This initiative diverted an estimated 6,724 minutes (112.1h) of operating room time and 10,373 minutes (172.9h) of postoperative care time from tertiary sites.

**Conclusions:** Our study suggests the feasibility and safety of ambulatory laparoscopic hysterectomy, supporting expansion of this initiative to other ambulatory settings. Enabling factors are alignment with institutional priorities, multidisciplinary collaboration, and regular communication and feedback.

**Future Directions:** Additional innovative strategies to improve efficiency while preserving quality of care are required to further improve surgical backlog.

**Disclosure:** None.

## (19 Prehospital Inhaled Methoxyflurane Non-Clinical Occupational Exposure Study)

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**Organization:** Ottawa Hospital Research Institute, Ottawa, Ontario, Canada, Regional Paramedic Program for Eastern Ontario, Ottawa, Ontario, Canada, The Ottawa Hospital, Department of Emergency Medicine, Ottawa, Canada, The Ottawa Hospital, Department of Occupational Health and Wellness, Ottawa, Canada

**Objective:** Methoxyflurane, a fluorinated hydrocarbon, was reintroduced in Canada for traumatic pain relief in 2018. This inhalational analgesic is self-administered, providing rapid, short-term pain relief. While low-dose methoxyflurane poses minimal risk, paramedics might experience intermittent exposure. We aim to evaluate the risk of occupational methoxyflurane exposure to inform paramedic safety, guide occupational health standards, and support the development of a medical directive for patient care.

**Methods:** Using active thermal desorption tubes, the sampling was conducted in a controlled laboratory environment within a Ministry of Health-approved ambulance over two days, both with and without ambulance ventilation. Twelve medically screened, consented participants inhaled methoxyflurane for 15 minutes each, following the specified protocol. Air samples were collected in both the driver and patient compartments, adhering to the Environmental Protection Agency and International Organization for Standardization standards. These samples were analyzed for



concentration levels and adjusted for time-weighted averages (TWA) to determine exposure over single and multiple methoxyflurane exposures.

**Results / Learning:** Twenty-four active air samples were collected over 2 days, with an average pressure of 756.0 mmHg (CI 752.4-760.1 mmHg), an average temperature of 22.6°C (CI 17.2-28.0°C), and average relative humidity of 18.8% (CI 16.5-25.0%). The 8-hour TWA concentration of the cumulative maximum was 0.32 ppm in the driver and 1.07 ppm in the patient compartments with the ventilation off. With the ventilation on, it was 0.02 ppm in the driver and 0.63 ppm in the patient compartments. No exposures exceeded the National Institute for Occupational Safety and Health ceiling limit of 2 ppm (over 60 minutes) or the maximum exposure limit of 15 ppm (8-hour TWA) from the literature. The median age of participants was 30.5 years (SD 15.6) with 50% female. Participants complied with the specified protocol in 712 out of 720 (99.1%) occurrences. No adverse events were reported. All participants had similar vital signs, including ventilation rates

**Conclusions:** This is the first laboratory-controlled study evaluating exposure to methoxyflurane in an ambulance. The results indicate that multiple methoxyflurane exposure is well below the exposure limits when used in an ambulance, making it safe to use with multiple patients during a shift.

**Disclosure:** None.

## (20 Closing the Loop: The Value of Outcome Letters for Prehospital Pediatric Care)

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**Organization:** Children's Hospital of Eastern Ontario Research Institute, Ottawa, Ontario, Canada; Regional Paramedic Program of Eastern Ontario, Ottawa, Ontario, Canada; Emergency Department, Children's Hospital of Eastern Ontario, Ottawa, Ontario, Canada; 4Ornge, Mississauga, Ontario, Canada

**Introduction:** Providing emergency care to children is stressful and requires a high level of training. Paramedics who provide care typically don't receive patient outcomes. The QI project aim was to assess paramedics' perceptions outcome letters pertaining to pediatric patients treated and transported to hospital.

**Methods:** Between December 2019-2020, 888 outcome letters were distributed to paramedics who provided care for 370 acute pediatric patients transported to CHEO. All





paramedics who received a letter (n = 470) were surveyed to provide their perceptions and feedback about the letters, as well as their demographics.

**Results / Learning:** The response rate was 37% (172/470). The respondents were half PCP and ACP. The respondents' median age was 36 years old, median years of service was 12, and 64% identified as male. Most agreed that the outcome letters contained information pertinent to their practice (91%), allowed them to reflect on care provided (87%), and confirmed clinical suspicions (93%). Respondents indicated that they found the letters useful for 3 reasons: increases capacity to link differential diagnoses, prehospital care, with patient outcomes; contributes to a culture of continuous learning and improvement; and provides closure, reduces stress, or answers difficult questions. Suggestions for improvement included giving more information on letters, providing letters on all patients transported, faster turnaround time of outcome letters and inclusion of recommendations or interventions/assessments.

**Conclusions:** Paramedics appreciated receiving hospital-based patient outcome information after their provision of care and reported that the letters offered opportunities for closure, reflection, and learning.

**Disclosure:** None.

## (21 Breaking the Silence: A Patient-Led Smash Room as a Safe Space for Emotional Expression and Dignity in Long-Term Hospitalization)

**Authors:** Roshene Lawson, Clinical Chaplain; Evan Mundy, Patient Advisor; Judith Minorgan, BSW, MSW; Andrea Jewell, MN, RN

**Organization:** Bruyere Health

**Introduction:** In long-stay hospital units, patients face not only the challenges of serious illness but also the emotional weight of prolonged institutional living. Over the past nine years, our long-term neuromuscular ventilator inpatient unit has seen a demographic shift: many patients, though physically impaired, are cognitively intact and acutely aware of the impact of hospitalization on their autonomy, identity, and sense of purpose. Increasingly, they have expressed profound frustration, despair, and existential suffering - emotions not always eased by traditional talk therapy alone. They describe feeling a deep need to scream, cry, or express anger, but fear being labeled as disruptive or unsafe. What they seek is not attention, but a safe, judgment-free space to externalize their pain, a basic human need too often unmet in highly medicalized spaces.



Objective:

- To create a safe, judgment-free environment where patients can externalize intense emotions such as anger, grief, or frustration.
- To reframe emotional expression as therapeutic and valid, rather than inappropriate.
- To co-design a trauma-informed innovation that promotes dignity, safety, and trust.

Methods: Prompted by an honest patient conversation with the Clinical Chaplain, the idea of a “Smash Room” emerged. With leadership support, spiritual care and the patient co-designed a structured space where participants could release tension by smashing break-safe items. Safety measures included protective equipment, clear eligibility criteria, strict protocols, and the constant presence of a spiritual care provider for support and debriefing. A short-written survey was completed after each session.

Results / Learning: Patients reported feeling validated, lighter, and better able to engage in care following Smash Room use. Staff observed improvements in mood, emotional regulation, and trust in care relationships. The initiative highlighted that supporting emotional release, rather than suppressing, can reduce suffering and strengthen therapeutic alliance.

Conclusions: More than a novelty, the Smash Room is a trauma-informed, patient-led innovation grounded in dignity, safety, and respect. It challenges the idea that emotional containment is the only acceptable form of coping in healthcare settings and demonstrates the importance of listening deeply to patient suffering—even when solutions fall outside of traditional care models.

Future Directions: Encouraged by early outcomes, we are committed to making the Smash Room available to more individuals seeking emotional release and support

Disclosure: None.

## (22 Beyond the Individual: Organizational Accountability and the Future of Patient Safety Culture)

Authors: Pamela Bader, MHA

Organization: The Ottawa Hospital

Introduction: This is not a project report or an evaluation; it is a thought piece, one that asks us to step back and examine why, after two decades of patient-safety work, progress remains fragile. Despite meaningful gains, many have not endured.





According to the Canadian Institute for Health Information, hospital harm declined from 1 in 14 patients in 2004 to 1 in 18 by 2016 but has since worsened to 1 in 17 in 2024-2025. Preventable harm now costs the system \$48 billion annually and contributes to nearly 28,000 deaths each year.

**Objective:** To move beyond individual accountability and examine how system design and organizational factors influence patient safety. The goal is to identify structural and cultural gaps that continue to limit consistent, sustainable improvement.

**Methods:** A targeted literature review was conducted drawing on peer-reviewed research and reputable institutional publications from Canadian and international contexts. The review examined how system design, governance, funding, and feedback processes influence patient safety across organizational and system levels.

#### Results / Learning: System-Level Gaps

Canada's accountability architecture remains weak. Reporting legislation, as described by Milligan and colleagues, shows fragmented oversight and limited coordination, with most provincial laws focused on collecting information rather than promoting learning or prevention. Few frameworks protect reporters or standardize definitions of harm, and without national integration, data cannot drive shared improvement.

**Did you know:** Canada has no national patient safety registry, and only Québec maintains a provincial one. In all other provinces, reporting is organizational, so we can't compare harm data across hospitals. Without laws that protect data sharing, safety metrics stay internal, limiting transparency and shared learning.

The OECD's Economics of Patient Safety series shows that prevention remains chronically underfunded because it isn't incentivized. Current funding models reward access and volume rather than harm reduction. As the OECD notes, we have built a system that measures harm, pays for harm, but rarely rewards its prevention. Canada also remains the only OECD country without a national patient safety plan, leaving progress voluntary, uneven, and dependent on local will rather than system design.

#### Organizational-Level Gaps

Within organizations, measurement and accountability mirror these system-wide weaknesses. The OECD warns of a "measurement trap", where collecting data becomes a substitute for improving it. Safety data are retrospective and largely disconnected from real-time decision-making, leaving teams unable to identify risks as they emerge. Accountability, meanwhile, often stops at the individual. Aveling and colleagues describe how staff are expected to follow procedures and report safety events yet have little authority to address the underlying causes. This creates accountability without agency,



where responsibility is emphasized but empowerment is absent. Oversight tends to be rigid where flexibility is needed and absent where consistency matters, undermining both trust and ownership.

Finally, the act of reporting itself may be at risk. Brubacher's national work found that complex reporting pathways, time pressures, and poor feedback loops erode engagement. Reports are often "fired off as statistics", with little visible action or communication back to the frontline. Feedback is typically limited to the individual closest to the event, while others never learn what was done or changed. This fragmentation fuels a sense of futility; staff report but see no improvement, reinforcing the perception that reporting is a bureaucratic exercise rather than a mechanism for learning and change.

The Feedback Gap: "Often feedback was reserved for the individual staff member closest to the event. The rest of the staff did not learn from events in which they were not involved... reports seemed to go into a void, and you never hear anything back"

Conclusions: Rising harm rates make it clear that patient safety cannot depend on vigilance alone, it must be rebuilt as a shared system responsibility. At a time when health systems face resource strain, workforce fatigue, and rapid digital transformation, safety risks being displaced by competing priorities. Relevance lies in re-centering it within governance, funding, and culture so that safety becomes an expected product of how care is designed, not a by-product of individual effort. Real progress will require leadership that treats safety as a strategic outcome, investment in predictive and learning systems, feedback loops that drive visible change, and policy frameworks that protect transparency and learning. The time to act is now, before the next decade repeats the cycle of reactive improvement.

Future Directions: The last twenty years focused on preventing obvious harm: wrong-site surgeries, medication errors, and falls. The future must build systems that are resilient, adaptive, and intelligent. True accountability will be proactive and predictive, embedding safety into the culture and incentives of care. Predictive analytics and simulation tools should identify risks before harm occurs, creating continuous learning and adaptation. Legislative reform must enable data sharing, protect reporters, and link provincial learning systems under a unified Canadian Safety Plan. Patients and families should co-design real-time safety pathways, transforming feedback into foresight. The future of safety will depend on systems that learn continuously and make reliability a routine outcome of care.

Disclosure: None



## (23 Enhancing Patient Safety by Engaging Patients with Gestational Diabetes Mellitus at the Queensway Carleton Hospital in an Outpatient Diabetes Clinic Workflow Review and Implementation of a Patient Passport)

Authors: Cathy McCumber, RN, MN, BScN; Andrea Trainor, RN, MScN; Dr. Janine Malcolm; Lisa Ferrier-Boult, RN, BScN, CDE; Aisha Asad Ahmed, MHSc; Nisha Baguhin, BHSc; Kim Finch, RN, BN, CDE; Stacey L. Whelan, RPN; Karen Afghan, RD, CDE; Connie Tuttle, RD, CDE; Doni G. White; Donna McGlennon, RN, BScN, CDE

Organization: Organization Queensway Carleton Hospital

Introduction: Following the COVID-19 pandemic, the Gestational Diabetes Mellitus (GDM) Ambulatory Care Clinic at Queensway Carleton Hospital (QCH) faced several challenges, including the transition from virtual to in-person care, high staff turnover, and increased patient volume highlighting the need for a comprehensive program review.

Objective: To enhance patient safety, optimize clinic efficiency, and empower GDM patients' self-management skills through patient and interprofessional team engagement in reviewing and redesigning the GDM clinic workflow.

Methods:

- Mapping of current clinic workflows
- Analysis of program resource utilization
- Development and implementation of comprehensive patient feedback surveys
- Facilitation of interprofessional retreats and patient focus groups

Results / Learning: A major innovation emerging from this initiative was the development of the GDM Patient Passport, a tool designed to support patients' self-management skills, enhance communication and coordination among the care team, Improve continuity and safety of patient-centered care. Collaborative engagement between patients and interprofessional teams proved essential for identifying workflow inefficiencies and generating sustainable solutions. The process reinforced the value of patient voice in program design and evaluation.

Conclusions: The GDM clinic workflow review demonstrated that patient engagement is a critical driver of quality improvement and patient safety. By involving patients in process



redesign, QCH strengthened the partnership between patients and care teams, fostering a more efficient and patient-centered model of care.

Future Directions: Future initiatives will include evaluating the effectiveness of the Patient Passport and expanding patient engagement strategies to further improve culturally sensitive and individualized GDM care.

Disclosure: This initiative was supported by a Healthcare Insurance Reciprocal of Canada (HIROC) Safety Grant.

## (24 Linen Layers – Less Is Best)

Authors: Shweta Jaitly, Marta Klepaczek, Jennifer Bennett, Christine Cerena, Simi Jacob, Sonia Michel

Organization: Bruyère Health

Introduction: The prevention and management of pressure injuries remain a critical priority for health care professionals. Recent efforts have focused on increasing awareness on the impact of multiple linen layers on the risk of pressure injuries. Excessive linen layers can compromise the pressure-redistributing capacity of therapeutic surfaces. Additionally, it may alter patient skin microclimate resulting in risk of pressure injuries development. A literature review highlights that utilizing quilted pads as a layer may further exacerbate skin temperature, heightening this risk.

Objective:

- Increase awareness of how excessive linen layers contribute to the development of pressure injuries.
- Determine the baseline knowledge of clinical staff regarding the use of linen layers.
- Enhance understanding of the appropriate use of linen layers on different therapeutic surfaces.
- Replace quilted pads with more breathable under pads to optimize patient outcomes.

Methods: Prior to project implementation, a linen layers education sheet was developed and reviewed with staff. A pre and post survey was conducted to assess staff baseline knowledge on different linen types and their impact on pressure injury development. Multiple education sessions were organized to provide staff education on the appropriate use of linens on specialized surfaces. Additionally, suitable alternatives for quilted pads were explored with the procurement department.



**Results / Learning:** From April – Aug 2025, the pilot implemented across two units. Post-pilot surveys and linen layers audits on one of the units showed improvement in nursing knowledge regarding the role of linen layers in pressure injury development. Additionally, audits revealed enhanced practices in the use of appropriate linen layers for patients in bed. In 100% of cases, quilted pads were replaced with breathable underpads.

**Conclusions:** Raising awareness among clinical staff about the impact of linen layers on pressure injury risk led to improved practices and enhancements in patient care. The shift from quilted pads to breathable pads was successful due to consistent availability on the units. Targeted education with clinical staff facilitated successful adoption of the changes.

**Future Directions:** Moving forward, efforts will focus on discouraging the use of brief liners and promoting use of either a brief or an underpad for moisture management. Continued education and audits will support sustained improvements in clinical practice.

**Disclosure:** Nothing to disclose.

## (25 Chest Pumping for Critically Ill Patients in the Intensive Care Unit: A Quality Improvement Project)

**Authors:** Talia M. Bitonti, BScN, RN, MScN, PhD (C); Crystal Graham, BScN, RN, MScN; Julia Showler, RN, MScN; Brandi Vanderspank-Wright, RN, PhD

**Organization:** The Ottawa Hospital – Intensive Care Unit

**Introduction:** Chest feeding (CF) provides proven benefits for both parent and infant, including reduced risk of infection and chronic disease. However, postpartum patients in intensive care units (ICUs) face unique barriers to initiating and maintaining lactation. Limited nurse training and competing clinical priorities can lead to complications such as engorgement, mastitis, and milk supply failure.

**Objective:** To improve ICU nurses' knowledge and adherence to evidence-based chest pumping practices in critically ill postpartum patients through a targeted educational intervention.

**Methods:** A quantitative pre–post intervention design was implemented with 60 ICU registered nurses. Participants were observed performing 12 standardized chest pumping steps before and after a bedside education session using a mannequin and visual tools. Data were analyzed using paired-sample t-tests to assess the impact of the intervention



**Results / Learning:** Statistically significant improvements were found across all 12 steps ( $p < 0.001$ ), particularly in correct pump set-up and hand expression techniques. Post-intervention adherence reached near or full compliance for multiple steps, indicating strong uptake of the education.

**Conclusions:** Targeted, bedside education effectively improved CF-related skills and confidence among ICU nurses. These findings highlight the critical role of advanced practice nurses in leading quality improvement and evidence-informed change in critical care.

**Future Directions:** Sustained success will require integrating lactation training into ICU staff orientation and ongoing education, alongside continued collaboration with lactation consultants.

**Disclosure:** The authors have no conflicts of interest to declare.

## (26 Heartbeat and Hindsight: Lessons Learned from Canadian Medico-legal Data Involving Obstetrical Care)

**Authors:** Laura Payant, Qian Yang, Kate Barbosa, Jun Ji, Gary Garber

**Organization:** Department of Safe Medical Care-Research, Canadian Medical Protective Association, Ottawa, Ontario, Canada, Faculty of Medicine, Department of Medicine and the School of Epidemiology and Public Health, University of Ottawa, Ottawa, Ontario, Canada, Faculty of Medicine, Department of Medicine, University of Toronto, Toronto, Ontario, Canada

**Introduction:** Obstetric care is complex, requiring coordinated expertise across a multidisciplinary team. Safe outcomes depend not only on clinical skills but also on effective communication and collaboration.

**Objective:** To support patient safety and reduce harm in obstetric care, we analyzed obstetrics related medico-legal cases involving Canadian physicians.

**Methods:** From the Canadian Medical Protective Association's (CMPA) repository of medico-legal case data, we extracted and analyzed civil legal cases, College and hospital complaints involving physicians providing obstetric care, closed by the CMPA between 2020 and 2024.



We examined patient complaints and peer expert criticisms. Using a logistic regression model, we tested the association of patient, provider and team factors with severe fetal or maternal harm.

**Results / Learning:** A total of 639 cases were analyzed. Patients or families frequently complained of inadequate assessment, failure or delay in intervening, delayed diagnosis, inadequate communication and informed consent.

Peer experts often agreed and were frequently critical of providers for misinterpreting the fetal heart rate (FHR). Misinterpretation of the FHR was often associated with poor team communication regarding the clinical situation, contributing to delayed intervention (e.g. cesarean section) and severe patient harm. Additional factors associated with severe patient harm included failing to: perform a thorough assessment, admit the patient, review the patient record and FHR, initiate internal monitoring and adhere to clinical practice guidelines.

**Conclusions:** Peer expert opinion noted provider factors, including inadequate assessment, FHR misinterpretation, and delayed interventions often intersected with team-based communication failures. Opportunities for improvement were identified across the antepartum, intrapartum, and postpartum stages.

This study demonstrated the potential for using medico-legal case data to generate knowledge and insight in support of quality improvement.

**Future Directions:** Enhancing provider skills in FHR interpretation, implementing structured escalation protocols, and fostering interprofessional communication and shared situational awareness, may help mitigate risks and improve patient safety in obstetric care.

**Disclosure:** None.

## (27 Patient Safety At The Margins: Sexual Health Inequities Among Older Gay Men)

**Authors:** Kunal Parikh

**Organization:** The Ottawa Hospital

**Introduction:** Sexuality remains integral to the lives of older adults, yet older gay men (OGM) face barriers to maintaining sexual health. They experience high levels of enacted and internalized stigma. Sexually active OGM are either misrecognized as sexual predators, or are rendered invisible within healthcare systems.





This discourages disclosure of sexual orientation and health needs, while providers often lack training to address sexual health with OGM. This results in psychological distress, sexual compulsivity, and sexual risk behaviors (SRBs).

SRBs increase susceptibility to HIV and other sexually transmitted infections. The interplay of heteronormativity, homonormativity, ageism, gender bias, and HIV-related sero-stigma deepens disadvantage and undermines patient safety and quality of care.

Objective: This presentation aims to examine the intersectional factors affecting the sexual health of OGM. It offers a toolkit to enable attendees to:

- Highlight unique risks and needs of OGM,
- Apply evidence-informed recommendations in policy and practice.
- Leverage community resources to support sexual health.

Methods:

A conceptual review of literature and practice was conducted to analyze:

- The effects of heteronormative, homonormative, and ageist discourses on disclosure and care.
- Cultural invisibility of OGM in healthcare.
- Evidence from LGBTQ+ affirming models of care and community-based support.

Insights were synthesized to develop recommendations for policy, practice, and quality improvement.

Results / Learning: Stigma and provider silence drive SRBs and reduce ART adherence.

- Providers frequently conflate sexual dysfunction with aging and neglect proactive sexual health care.
- Compound intersectionality exacerbates invisibility and exclusion.

In order to foster disclosure, reduce stigma, and improve safety, promising responses include:

- Integrating LGBTQ+ affirming training into ongoing medical education
- Ensuring assisted living facilities provide identity-affirming care
- Expanding multigenerational peer support groups.

Conclusions: Policymakers, senior-serving organizations, and practitioners must challenge dominant ageist discourses and adopt a person-centered lens to enhance safety of OGM.





#### Future Directions:

- Innovative Care Models: Pilot tailored sexual health programs within primary and geriatric care.
- Community Partnerships: Collaborate with LGBTQ+ organizations for culturally competent outreach.
- Research Agenda: Longitudinal studies on impact of stigma, ageism, and care environments.
- Scalability: Use Implementation Science to test how provider training and community-based programs scale across diverse healthcare settings.
- Policy: Advocate for LGBTQ+ affirming standards in healthcare accreditation and eldercare licensing.

Disclosure: Nothing to disclose.

## (28 CHEO's Safety Habit Hack: Culture, Connection, and Catching Errors)

Authors: Martha Pinheiro-Maltez, Marybeth Colton, Jill Sullivan

Organization: Children's Hospital of Eastern Ontario (CHEO)

Introduction: Over the past two years, CHEO has implemented a mandatory Safety Habits training program for all staff. This training includes:

- Safety Habit Tools (error prevention tools)
- Safety Culture (Reporting culture, Learning culture and Fair & Just culture)
- Joy in Work (interconnectedness of a strong safety culture and meaning/purpose in one's work)

Objective: For all current staff and new hires (at onboarding) to be trained with the expectation that all would use the same tools and language to prevent errors and reduce risk of miscommunications and harm. Recognizing that staff's joy in work is impacted by safety events and safety culture, this training also aims at:

- equipping them with strategies to continue to find meaning and purpose in their work even when safety

events occur

- providing information on how/when to report events, how learnings from them result in positive change,



and how staff are supported and treated when errors occur

- creating an atmosphere of trust to increase reporting, improve retention and boost morale.

Methods: A Plan-Do-Study-Adjust methodology was used to implement this training program. The initial design included: an online pre-module, a mandatory in person 4-hour training and an annual online refresher.

Qualitative data from a post training survey completed by attendees is being used to Study and Adjust the training sessions and the overall program.

Quantitative data is being collected to track the impact on key safety indicators

Results / Learning: We use the post training survey qualitative data to make necessary adaptations to the training. To date, we have:

- removed the online pre-module requirement
- added more non-clinical scenarios
- proactively shared the reason why we share safety stories
- openly acknowledge the emotional impact safety stories may have
- updated all our training videos, ensuring cultural diversity
- become more flexible in our training times and modes of training (i.e. virtual, multidisciplinary teams, etc.)

Results of the key safety indicators being monitored will be shared.

Conclusions: Our safety habits training is now embedded in our mandatory corporate orientation, ensuring that safety remains a priority for all staff from day one at CHEO. The key safety indicator results provide compelling evidence of the program's ongoing success.

Future Directions:

- Mandatory online annual refresher
- Explore other training modalities
- Introduce proactive safety tools/methods
- Study implications on practice

Disclosure: None.



## (29 Shared Ownership in Action: Expanding CLABSI Surveillance to High-Risk Outpatients through Interprofessional Collaboration)

**Authors: Rosalyn Talgoy, Martha Pinheiro-Maltez, Meghan Engbretson**

Organization: Children's Hospital of Eastern Ontario (CHEO)

Surveillance for central line–associated bloodstream infection (CLABSI) at the Children's Hospital of Eastern Ontario (CHEO) has traditionally been conducted by the Infection Prevention and Control (IPAC) team, with apparent cause analyses (ACAs) performed in collaboration with the Safety team, program managers, and physicians. Until 2025, surveillance excluded outpatient hematology/oncology and dialysis patients, despite this group having the highest number of central line days.

Recognizing this gap, IPAC, Safety, and Hematology/Oncology leaders partnered to extend CLABSI surveillance to this high-risk outpatient population, guided by the Solutions for Patient Safety ambulatory CLABSI protocol. Through multiple joint education and feedback sessions, teams reviewed definitions, discussed population-specific risk factors, and standardized data collection via a shared case report form completed by both clinical and IPAC staff. These forms informed collaborative ACAs, providing a richer understanding of patient, event, and protocol adherence factors.

In January 2025, outpatient CLABSI data were added to hospital-wide dashboards, increasing visibility and accountability. When a rate increase was detected in May 2025, the multidisciplinary team rapidly initiated process reviews and implemented targeted education during the onboarding of a new product (KiteLock).

This initiative demonstrates how interprofessional education and collaboration can bridge surveillance gaps, improve mutual understanding of each discipline's perspectives, and strengthen patient safety outcomes through shared ownership and timely action

Disclosure: None



## (30 The use of the Business Intelligent Tool to inform Barcode Medication Verification on the Mental Health Inpatient Unit)

**Authors:** Kailyn Pasma, Amandeep Chahal, Marcie Patterson

**Organization:** Queensway Carleton Hospital

**Introduction:** Ensuring safe medication administration is a critical component of patient safety. Barcode Medication Verification (BMV), a process that requires scanning both the patient's identification and the medication prior to administration, is a foundational practice in achieving closed-loop medication administration. However, sustaining high compliance rates with BMV across units and among individual staff remains a challenge. To address this, a Business Intelligence (BI) Tool was developed to provide real-time, unit- and staff-specific data on BMV compliance rates. Specialty areas such as the Mental Health Inpatient Unit, used the BI Tool to improve BMV compliance from 3% to 92% in three (3) months.

**Objective:** This project aimed to evaluate the impact of a newly implemented BI tool on monitoring and improving BMV compliance, using data collected from the entire organization with a focus on mental health inpatient unit as a pilot for specialty areas.

**Methods:** The BI tool automatically aggregates daily BMV data from the electronic medical record system, calculating compliance percentages at the unit and individual staff levels. Compliance is defined as the successful scanning of both the patient and the medication before administration. Data from the mental health unit were tracked over a 7-month period utilizing the BI Tool. The unit leadership used the tool to provide targeted feedback and identify trends or barriers in staff adherence.

**Results / Learning:** Following implementation, the mental health unit saw a measurable increase in BMV compliance rates, rising from a result of 3% pre-implementation to 93% within three months. The visibility of individual and unit-level performance enabled timely coaching, accountability, and a culture shift toward safer medication practices. Staff reported increased awareness of their scanning behaviors and greater engagement in process improvement.

**Conclusions:** The BI tool proved to be a valuable asset in promoting adherence to BMV protocols, particularly in environments like Mental Health. The ability to access real-time, actionable data empowered leadership to support staff and drive sustainable improvements in medication safety. With the BI Tool, other countermeasures were



implemented for successful change management strategies to increase the closed loop BMV scanning rates on the Mental Health Inpatient Unit

Future Directions: Building on the success in the mental health unit, the BI tool continues to be used as a clinical metric information tool for other specialty departments within the organization. As a result of using the BI Tool for real-time data, the corporate BMV scanning rates have increased by 76% to 85% in seven months. Future enhancements will include integration with education and performance management systems, as well as the incorporation of additional metrics related to medication safety.

Disclosure: None.

## (31 Idiopathic scoliosis bracing techniques using digital workflow: The Ottawa Hospital experience)

Authors: Rajiv Kalsi, Rachel Macdonald

Organization: The Ottawa Hospital Rehabilitation Centre, Ottawa, Canada

Introduction: The Ottawa Hospital Rehabilitation Centre recently adopted digital shape capture and model rectification techniques to produce scoliosis orthoses. To successfully integrate these digital tools into the clinical workflow, revised clinical and technical methods were required. Technicians developed new fabrication techniques in response to the technology shift. Cobb angles and curve progression were measured to investigate the effectiveness of these new methods.

Objective: To demonstrate that changes in clinical techniques (digital shape capture, model rectification, model preparation) and technical procedures are beneficial to scoliosis patients and the clinical team.

Methods: Idiopathic scoliosis patients were followed to demonstrate the digital workflow from assessment, scanning, curve classification according to Rigo, model rectification using rectification software, model preparation, brace fabrication, and fitting. Data collected pre- and post-transition to digital workflow included: number of braces provided, average in-brace correction percentage, and curve angle outcomes (improved, unchanged, worsened) upon follow-up.

Results / Learning: A comparative analysis of treatment methods showed:

- Before Rigo: 36 patients, average correction 24%
- Transition phase: 42 patients, average correction 54%
- Rigo with Traditional Casting: 42 patients, average correction 37%



- Rigo with Scanning and Foam: 25 patients, average correction 32%  
These results suggest improved outcomes with the digital workflow, particularly during the transition phase.

**Conclusions:** The integration of digital shape capture and rectification techniques into clinical practice has led to measurable improvements in scoliosis brace outcomes. The transition required adaptation in both clinical assessment and technical fabrication, but yielded enhanced correction rates and workflow efficiency.

**Future Directions:** Further research will focus on long-term patient outcomes, refinement of digital techniques, and broader implementation across orthotic services. Expansion to other brace types and conditions is also under consideration.

**Disclosure:** The authors declare no conflicts of interest.

## (32 Enhancing Parental Understanding of Pediatric Anesthesia through Structured Educational Interventions: A Quality Improvement Initiative)

**Authors:** Mohamed Ali, Niveditha Karuppiah MD, Shawn Mondoux MD, MSc, FRCPC, Isabella Jaramillo MD

**Organization:** Michael G. DeGroote School of Medicine, McMaster University, Hamilton, ON, Canada; McMaster University, Department of Anesthesia, McMaster University, Hamilton, ON, Canada; Hamilton Health Sciences, Hamilton, ON, Canada 4. Department of Medicine, Division of Emergency Medicine, McMaster University, Hamilton, ON, Canada; St. Joseph's Healthcare Hamilton, Hamilton, ON, Canada.

**Introduction:** In the field of pediatric anesthesia, families often receive varying degrees and timings of anesthesia education, creating uncertainty that can undermine a culture of safety. We sought to build a reliable, simplified educational resource that standardizes the information that families receive regarding their child's anesthetic care.

**Objective:** (1) Identify where families currently obtain information about the pediatric anesthetic process (2) Implement a plain-language FAQ brochure and evaluate its perceived usefulness; (3) Incorporate the collection of feedback regarding our intervention into routine anesthesia processes.

**Methods:** Three Plan-Do-Study-Act (PDSA) cycles over 13 weeks at a tertiary pediatric center. PDSA-1 implemented a parent survey to identify pre-intervention sources of anesthesia information. PDSA-2 introduced an English FAQ brochure distributed ad hoc (by



clerks/nurses) with an associated survey rating its usefulness and coverage. PDSA-3 embedded brochure delivery into the care pathway: pre-loading the brochure into surgical charts, nurse delivery at intake, a brochure log, and prompts at discharge to complete the survey. Measures of usefulness of intervention: experience accompanying the child (5-point); perceived reassurance (5-point); FAQ usefulness (5-point); “answered none/few/most/all anesthesia questions”.

Results / Learning: Among respondents, 66.7% (100/150) were first-time pediatric-anesthesia caregivers. Information was predominantly in-person counselling 88.5% (131/148); timing was often day-of 73.0% (108/148,) with additional touchpoints <2 weeks 30.4% (45/148). Experience accompanying the child was highly rated (very satisfactory/outstanding 86.8% [131/151]), and education felt reassuring/very reassuring 92.7% (140/151). Post-FAQ, receipt 83.0% (78/94); among recipients, 91.0% (71/78) rated the FAQ “useful or extremely useful,” and 80.5% (62/77) said it answered most or all of their questions. Embedding brochure delivery into the care pathway increased survey response rate from 31/100 (31%) in PDSA-2 to 64/100 (64%) in PDSA-3, demonstrating a meaningful system-level improvement in feedback capture.

Conclusions: Standardizing family education with a plain-language brochure, and embedding its delivery into the care pathway, improved the consistency of what families received and doubled feedback capture, strengthening a systems-based culture of informational transparency and safety.

Future Directions: Translate the FAQ; monitor equity (language/health-literacy strata); integrate pre-visit digital delivery to shift timing earlier.

Disclosure: Nothing to disclose.

## (33 Enhancing Engagement in Continuing Education for Nurses and Interprofessional Staff: A Quality Improvement Initiative)

Authors: Rinam Ali, RN, MScN

Organization: The Ottawa Hospital

Introduction: Continuing education is central to health professionals’ practice and serves as a key strategy for maintaining competency, adapting to evolving healthcare needs, and managing complex patient care. Evidence indicates that continuing education enhances patient safety, clinical outcomes, and job satisfaction among healthcare professionals (Bechok et al., 2024; Mlambo et al., 2021). Despite these recognized benefits, barriers such





as time constraints, limited access, and financial challenges often lead to decreased staff engagement in educational opportunities. To address these challenges and foster ongoing professional growth, The Ottawa Hospital (TOH) Corporate Nursing Education team collaborates with subject matter experts to deliver high-quality, no-cost educational opportunities for nurses and interprofessional staff. However, participation in these events has declined over the past five years due to the pandemic, staff turnover, and generational learning differences, underscoring the need for a systematic, multipronged approach to re-engage staff and sustain participation.

#### Objectives:

- Improve participation rates in TOH education days.
- Capture and analyze quality metrics to evaluate educational effectiveness.
- Enhance engagement from frontline nurses and interprofessional teams.

Methods: Guided by The Ottawa Hospital Innovation Framework (Hamilton et al., 2020), the team defined the problem, project scope, and objectives. Process mapping and fishbone analyses identified bottlenecks, challenges, and gaps in existing processes. Following this analysis, project aims, and key performance indicators (KPIs) were established to measure participation, engagement, and education quality. Innovative strategies such as targeted communication, engaging content, and interprofessional collaboration were implemented across two Plan-Do-Study-Act (PDSA) cycles.

Results / Learning: Across two PDSA cycles (September 2024 – June 2025), 22 education events were delivered to 862 participants, representing a 66% increase in attendance compared to previous years. Interprofessional participation also increased by 5.3-fold. Evaluation response rates improved from 34% to 78%, and more than 90% of the respondents reported that events were comprehensive, high-quality, applicable, and accessible.

Conclusions: This quality improvement (QI) initiative demonstrates the impact of collaboration, communication, and commitment in enhancing continuing education for nurses and interprofessional staff. The initiative is replicable across diverse healthcare settings and scalable to organizations of varying sizes.

Future Directions: Next steps include automating processes to improve efficiency, optimizing data management for real-time monitoring, and expanding the initiative to further support professional development and interprofessional collaboration across TOH.

Disclosure: None

References:



Bechok, L., Blevins, S., & Goss, L. (2024). Educational theory in nursing practice: Strategies for new

graduate and experienced nurses. *Medsurg Nursing*, 33(5), 249.

<https://doi.org/10.62116/msj.2024.33.5.249>

Hamilton, S., Jennings, A., & Forster, A. J. (2020). Development and evaluation of a quality improvement framework for healthcare. *International Journal for Quality in Health Care*, 32(7), 456–463. <https://doi.org/10.1093/intqhc/mzaa075>

Mlambo, M., Silén, C., & McGrath, C. (2021). Lifelong learning and nurses' continuing professional development, a metasynthesis of the literature. *BMC Nursing*, 20(1). <https://doi.org/10.1186/s12912-021-00579-2>

## (34 Right sized In-situ simulation: A retrospective qualitative quality improvement study)

**Author: Jennifer Dale-Tam, RN, MSN, CNCC(c), CCSNE, CHSE-A**

Organization: Carleton University and The Ottawa Hospital

**Introduction:** In-situ simulation (ISS) is a proven training method for healthcare professionals that takes place in real clinical settings, enhancing teamwork, identifying system flaws, and reinforcing practical skills. However, its effectiveness can be limited by the demands of patient care and frequent disruptions in high-pressure hospital environments. ISS run times vary from 30 minutes to 3 hours. An unresolved question in ISS practice is the optimal total session length, including debriefing, that maximizes learning while minimizing cognitive load for both participants and facilitators

**Objective:** This quality improvement project aimed to evaluate how ISS session length, including debrief, influences participant and facilitator cognitive load, perceived learning, and integration with clinical workflow. The objective was to develop practical recommendations to guide facilitators in planning ISS activities.

**Methods:** A retrospective, mixed-methods quality improvement design was used. Two anonymous online surveys—containing both quantitative and qualitative items—was distributed via email to eligible interprofessional participants (facilitators and participants) at two Ottawa hospitals: one large tertiary academic center and one community hospital. Data was analyzed using content analysis to identify trends and insights leading to recommendations for practicing simulation educators.

**Results / Learning:** Interprofessional facilitators and participants agreed that 15-30 minutes was the optimal ISS length for cognitive load and clinical workflow. Facilitator and participants disagreed that longer sessions contribute to increased cognitive load.

**Conclusions:** Both groups generally prefer 15–30-minute sessions because that timeframe supports learning while limiting cognitive load and workflow disruption, and participants report that longer sessions or inadequate staffing cause mental fatigue and interfere with patient care, which advance notice and relief staffing would mitigate. Facilitators find in-situ simulation only moderately disruptive and feel able to balance teaching with clinical duties but stress that flexibility, strong leadership support, and thorough preplanning are essential for successful implementation, especially in high-acuity areas.

**Future Directions:** Practical guidelines will be shared with attendees at the Ottawa Patient Safety Conference as well as the Ottawa simulation community and beyond.

**Disclosure:** Nothing to disclose.

## (35 Data-Driven and People-Powered: A Dual Approach to Peripheral Intravenous Infiltration and Extravasation Prevention)

**Authors:** Jill Frook, Martha Pinheiro-Maltez, Sandra Dragic

**Organization:** Children's Hospital of Eastern Ontario (CHEO)

**Introduction:** Peripheral Intravenous Infiltrations/Extravasations (PIVIES) are a significant patient safety concern in pediatrics. However, our only means of detecting and monitoring outcome data related to PIVIEs was through our Safety Reporting System (SRS) which is dependent on staff submission of events. To enhance safety and clinical outcomes through evidence-based practices we needed to know the true prevalence of PIVIES by improving their detection.

**Objective:** By aligning CHEO practice with RNAO Best Practice Guidelines (BPG) and Solutions for Patient Safety (SPS) bundles elements, our goals were to:

- Improve the accuracy and consistency of PIVIE documentation within the electronic health record (EMR) by eliminating redundancy and ensuring critical data is captured.
- Develop a reliable method to extract PIVIE outcome data to support timely event review and data-driven decision-making.



**Methods:** Review of RNAO and SPS best practices to confirm there were no conflicting recommendations. Complete a Gap Analysis to understand current practice compared to the recommended evidence-based practices. Build reports within the EMR to pull stratified outcome data. Cross unit Vascular Access Champions led structured huddles, educated staff on documentation changes, standardized PIVIE grading, and distributed reference cards.

**Results / Learning:** The initial outcome data pull from Epic revealed an unexpectedly high number of PIVIES. Documentation redundancies were identified as contributing to this high number of PIVIES which led to the following improvements in our EMR (i.e. streamline documentation, information pop-outs, and prompts). The impact has been remarkable; in the first 6 months of 2025 we have recorded 23 events in the first compared to 91 for the same period in 2024.

**Conclusions:** Our EMR is now used as the primary source for PIVIE outcome data and the stratified data from the EMR report closely aligns with the moderate to severe PIVIES reported in the SRS. This success reflects the importance of collaborating across units, aligning with broader safety networks, empowering frontline staff to engage in quality and safety improvement work, champion-led education, and leveraging technologies such as EMR for more accurate data.

**Future Directions:**

- Implement Apparent Cause Analysis
- Peer to peer process observation
- Caregiver education

**Disclosure:** None.

## (36 Assessing Medication Safety in Canadian Paramedicine Practice)

**Authors:** James Bowen MTech, EMC, Benjamin de Mendonca P.Eng., MHA, Jennifer Wheaton ACP, Terry Han PharmD cand.

**Organization:** Regional Paramedic Program for Eastern Ontario (RPPEO), Institute for Safe Medication Practices Canada (SMP Canada)

**Introduction:** The role of paramedics in Canada is undergoing significant transformation, with expanded scopes of practice and the introduction of new patient care models. As the complexity of care increases, so does the risk of medication-related incidents. To address



this, the Institute for Safe Medication Practices Canada (ISMP Canada) developed a Medication Safety Self-Assessment (MSSA) tailored for practicing paramedics, aiming to evaluate and enhance medication safety practices.

**Objective:** This study aimed to assess the current state of medication safety practices among paramedics, identify strengths and areas for improvement, and provide recommendations to support continuous quality improvement in paramedicine.

**Methods:** A total of 196 paramedics completed the MSSA between February and November 2023. The MSSA evaluated eight key elements of medication safety using a 5-point scale (0–4), with participants reflecting on their individual practices. Data were analyzed to calculate mean scores for each key element and identify high- and low-scoring assessment items. Responses marked “not applicable” were excluded from the analysis.

**Results / Learning:** Participants reported strong performance in day-to-day clinical practices, particularly in medication administration, interdisciplinary collaboration, and adherence to protocols. However, lower scores were observed in areas related to equipment and technology, such as training on medication-related devices and the use of bar-coding at the point of care. The concept of a just culture and access to safety equipment, such as prescription safety glasses, also emerged as areas needing attention. Notably, 68% of respondents indicated they would consider changing their practice based on MSSA insights.

**Disclosure:** None.

## (37 Evaluating remote versus standard in-person paramedic certification: a feasible alternative?)

**Authors:** Ben de Mendonca, Julie Sinclair, Natalie Labelle, Frank St. Jean, Jane Marchand, Yiping Ma, Michael Austin

**Introduction:** The Regional Paramedic Program for Eastern Ontario (RPPEO) prioritized provider and public safety while maintaining regular operations during the COVID-19 pandemic, certifying paramedics to perform controlled acts and delegated procedures safely. RPPEO adapted the standard in-person certification to a remote performance-based certification (RPBC) process using video technology to minimize the potential spread of COVID-19. The study aimed to evaluate the feasibility and efficacy of the RPBC strategy.

**Methods:** RPPEO conducted a before and after evaluation following the implementation of the RPBC strategy in Eastern Ontario. We analyzed the Global Rating Score (GRS)



certification data from the clinical scenarios, before and after the RPBC strategy (5-year period), to evaluate the difference in certification success rates & GRS scores (success = min 70% written exam & GRS 4.8/7.0 across all seven competencies). We also collected quality metrics to evaluate the efficacy of the RPBC. We hypothesized that the efficacy could be predicated by the paramedics' quality-of-care chart review outcomes (e.g. number of clinical errors, flagged issues, etc.) following certification. Descriptive and univariate statistics were used.

Results / Learning: The final sample included 746 paramedics who completed the RPPEO certification process; 376

in the standard phase and 370 in the RPBC phase. The certification success rate in the standard certification format was 84%, while in the RPBC phase, it was 88% ( $p=0.11$ ). The overall median GRS score was 5.2 in both phases. However, an increase in median GRS score and spread were observed in the RPBC phase for the following competencies: procedural skill, communication, decision-making and patient assessment. A quality-of-care analysis was conducted on a sample of 560 successfully certified paramedics. There was no notable difference in the number of clinical errors. However, we did observe an overall increase in the number of ALS flagged 'documentation' and 'clarification' issues and an overall decrease in the number of ALS 'medication' issues in the RPBC phase.

Conclusions: The use of a RPBC process for paramedics did not result in an increase in number of clinical errors observed. The RPBC success rate was comparable to the standard certification format notwithstanding the simulated evaluation of procedural skills with the RPBC and may be considered a feasible alternative.

Disclosure: None

## (38 Interprofessional Primary Care Skin Assessment as a Key Educational and Patient Safety Program

Authors: Dr. Shauna Hacker, Assistant Professor University of Ottawa, MD CCFP MSc; Alain Scalabrini NP MScN, Hailey Sutherland BHSc

Organization: University of Ottawa, Bruyère Health

Introduction: Up to 25% of primary care visits involve skin concerns, making proficiency in skin assessments and procedures a core competency for Canadian family medicine residents. Skin assessment is increasingly important due to delays in specialist access, the requirement for tissue prior to referral, and rising skin cancer rates. However, these areas are frequently identified as a weakness among graduating family medicine (FM) residents.



Despite a provincial focus on interprofessional primary care teams, trainees receive education largely siloed within their respective disciplines

**Objective:** Develop an interprofessional Primary Care Skin Assessment and Procedures Clinic, co-led by a family physician and nurse practitioner (NP) with extra training in skin assessments, in order to enhance skin assessment teaching, improve patient safety by reducing wait times and avoiding unnecessary referral.

**Methods:** We integrated skin assessments and NP trainees into the previously physician-only procedures clinic and collected data between April 1, 2024 and March 31, 2025 including number of clinics, number of unique trainees (MD and NP) participating, and details of subsequent referrals to skin-related specialists. Informal feedback was collected through exit interviews of all graduating residents.

**Results / Learning:** We hosted 49 clinics during the study period, with participation by 40 FM residents, four NP students, three medical students, and one dermatology resident, providing a total of 128 learner clinic opportunities (on average, 2.6 learners per clinic). Of 274 patients seen, only 28 (10%) required skin specialist referral, of which 61% were for definitive excision (ex MOHS), 6% for cosmesis, and 14% for e-consultations to dermatology to confirm course of action. Average wait time for dermoscopy assessment was 83 days while average wait time for procedures consultation was 52 days. This is compared to the provincial dermatology average wait time of 182 days. Feedback from learner exit interviews was highly positive, with the majority suggesting more exposure.

**Conclusions:** Our interprofessional Skin Assessment and Procedures Clinic decreased skin specialist referrals, allowing care to be delivered in the patient's medical home, reduced wait time compared to external referral, and offered numerous opportunities for trainees who provided overwhelmingly positive feedback.

**Future Directions:** Next steps include formal evaluation of trainee confidence and competence in skin assessments and procedures, as well as a focused assessment of the interprofessional aspects of care and education delivery.

**Disclosure:** None.





## (Performance of the adapted Modified Early Obstetrics Warning System (MEOWS) at a single centre: a quality improvement study)

Authors: Ana Werlang, Sara Scremin Souza, Steven Hawken, Elham Sabri, Megan Gomes

Organization: The Ottawa Hospital

**Introduction:** Severe maternal morbidity (SMM) and mortality continue to be significant and often preventable contributors to poor maternal outcomes. In Ontario, Canada, the maternal mortality ratio is 17.5 per 100,000 live births, with hemorrhage, infection, preeclampsia, and embolism as leading causes. Early obstetric warning systems (EOWS) aim to improve the recognition and management of clinical deterioration in pregnant and postpartum individuals. In 2022, TOH became the first Canadian center to adapt and integrate a Modified Early Obstetric Warning System (MEOWS) into the electronic medical record (EPIC), alongside a Maternal Sepsis Protocol. Score thresholds were adjusted based on expert opinion to align values to local protocols and national guidelines. MEOWS scores are calculated by default by EPIC for all patients admitted to our Obstetric Units.

**Objective:** To validate the performance of the adapted MEOWS tool in identifying composite SMM; and as a secondary outcome, to assess the association between individual MEOWS parameters and composite SMM.

**Methods:** This retrospective cohort study included all obstetric admissions at TOH from 20 weeks' gestation to 6 weeks postpartum between April 6, 2022, and April 30, 2024. All encounters with a documented MEOWS score were included. SMM was defined using a composite of 9 categories, including severe hemorrhage, sepsis, hypertensive disorders of pregnancy, and ICU admission. Relative risks (RR) were calculated for the highest total MEOWS score for each encounter and also for each individual parameter that builds the score. Sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV) were assessed for various MEOWS thresholds with means to identify the one with highest sensitivity and specificity.

**Results / Learning:** Among 13,756 admissions, 13.8% (n=1,895) experienced at least one SMM event. Severe hemorrhage (61.6%) and sepsis (24.5%) were the most frequent morbidities. A MEOWS score  $\geq 7$  was associated with a nearly sevenfold increased risk of SMM (RR = 6.70; 95% CI 5.36–8.38). MEOWS scores of 5–6 and 1–4 were also associated with elevated risk (RR = 4.15 and 1.73, respectively), demonstrating a cumulative risk effect.



MEOWS thresholds demonstrated varying predictive performance:

MEOWS  $\geq 1$  showed the highest sensitivity (95.4%; 95% CI 94.4–96.3) and NPV (93.4%; 95% CI 92.0–94.7), supporting its use as a screening threshold to rule out SMM.

MEOWS  $\geq 7$  showed the highest specificity (97.6%; 95% CI 97.3–97.9) and an NPV of 87.4% (95% CI 86.9–88.0), reliably identifying SMM. PPV increased with higher scores but remained modest, ranging from 14.5% (95% CI 13.9–15.2) for MEOWS  $\geq 1$  to 44.4% (95% CI 40.1–48.7) for MEOWS  $\geq 7$ .

MEOWS parameters most strongly associated with SMM included tachypnea (RR = 4.96), fever (RR = 4.58), tachycardia (RR = 2.38), systolic BP  $> 160$  mmHg (RR = 2.04), and diastolic BP  $> 110$  mmHg (RR = 2.15). Proteinuria ( $\geq 2+$  dipstick or PCR  $> 30$ ) independently increased the risk of SMM (RR = 2.75) and had additive predictive value when combined with elevated blood pressure. Some clinically relevant MEOWS parameters, such as oxygen saturation below 90% and systolic BP less than 90 mmHg, did not reach statistical significance in predicting risk of SMM. We suspect larger sample sizes for such parameters thresholds would have better power of prediction.

**Conclusions:** The adapted MEOWS tool demonstrated excellent performance in predicting SMM, with high sensitivity and specificity at clinically relevant thresholds. The MEOWS integration into the EMR has enabled effective early risk identification and supports standardized communication and clinical responses. These findings validate the MEOWS as a robust screening tool and provide parameter-level insights for future refinement and broader adoption.

**Future Directions:** Further adjustment of individual parameters will increase the specificity of the tool, decreasing false alarms and user fatigue. By proving this tool to be effective in early recognition of SMM, we aim to share it with provincial and national obstetric centres to ensure that standard communication and management pathways are timely implemented, consequently decreasing the prevalence of SMM.

**Disclosure:** This project was funded by TOHAMO Quality and Patient Safety Grant (2024).



## (Environmental Stewardship: Reducing Pharmaceutical Waste from Medication Returns to Pharmacy at The Ottawa Hospital)

**Authors:** : Randilynne Urslak, Sasha Goldstein, Meriam Zeghal, Gabrielle Nadon, Danielle Skeba, Melisande Logelin, Jenna Brophey, Kyla Agtarap, Salmaan Kanji

**Organization:** The Ottawa Hospital

**Introduction:** The healthcare industry is a significant contributor to climate change and pollution, with pharmaceutical waste representing a major component of its carbon footprint. Opportunities for financial and environmental savings through recycling, reuse, and proper disposal of returned medications remain underexplored.

**Objective:** To evaluate the feasibility of a pharmacy student-led initiative for collating and processing medication returns for reuse, with the aim of demonstrating net cost savings and to identify opportunities for waste reduction.

**Methods:** A pharmacy student-run audit and feedback initiative was conducted at two campuses of the Ottawa Hospital. Medications returned to the pharmacy at each site were assessed, sorted, and documented over four weeks, with returns organized by campus and unit. Expired or damaged medications were wasted, while eligible medications were restocked. Costs were applied using Pharmacy purchase costing. Audit summaries were prepared for each campus and unit for feedback and benchmarking. A process mapping exercise identified unit-level stakeholders and upstream opportunities to reduce waste and optimize workflow.

**Results / Learning:** Medication returns were audited and collated from July 7th to August 1st, 2025. Total and mean (+/-SD) medication returns per day over this period were 22,863 and 847/day (+/- 414.4) for the General campus and 15068 and 580/day (+/- 344.3) for the Civic campus. Of these returns, 91.92% were restocked and 8.08% were wasted at the General campus while 90.85% were restocked and 9.15% were wasted at the Civic campus. Corporately, the estimated value of returned, restocked and wasted medications were \$102,183, \$75,483 and \$26,700 for the 26-day period, respectively. Extrapolated to annual estimates, the value of returned, restocked and wasted medications are estimated to be \$1,226,202, \$905,796 and \$320,406, respectively. The process of assessing and sorting medication returns took an average of 4.5 +/- 1.6 hours each day at each campus.



**Conclusions:** A pharmacy student led initiative for medication return triage was deemed to be feasible with time and resource limitations. Given the value of medication returns and waste, this task should be prioritized and executed daily. Upstream opportunities to reduce the burden of medication waste are worth exploring.

**Future Directions:** Unit-level audit summaries have been created and distributed to key stakeholders.

**Disclosure:** None.

## (Standardization and IMProvement of Postpartum pain control and patient Experience (SIMPLE))

**Authors:** Charles Mann, Dr. Megan Gomes, Claudia Smith, and Maryann Towns

**Organization:** The Ottawa Hospital

**Introduction:** Postpartum pain affects up to 75% of patients who deliver vaginally within the first 24 hours. Despite its prevalence and association with impaired maternal-newborn bonding, breastfeeding challenges, reduced mobility, prolonged hospitalization, postpartum depression and chronic pain<sup>3</sup>, pain management remains inconsistent. With limited pharmacological guidance in current national and local guidelines, clinicians lack standardized approaches to postpartum pain management. At the Ottawa Hospital (TOH), with approximately 7000 annual deliveries – 60.5% vaginal – 44% of surveyed postpartum patients reported inadequate pain control between January and March 2024. This highlights a critical gap in care and an urgent need for a standardized, evidence-based approach to optimize postpartum pain management.

**Objective:** This quality improvement project aimed to increase median percentage of “top box” ratings on the Canadian Patient Experience Survey question 46 (“Overall, was your pain well controlled?”) by %, from a baseline median of 56% to at least 66% by October 31, 2025.

**Methods:** The SIMPLE QI project focused exclusively on vaginal deliveries; cesarean section pain protocols, managed by the Acute Pain Service, remained unchanged. Impact was evaluated using Canadian Patient Experience Survey data, which does not differentiate delivery type. Cesarean section responses were assumed unchanged.

An environmental scan of national and international guidelines, alongside an internal review of medication orders (type, route, frequency), electronic medical record workflows,



and staff education identified key gaps in knowledge and practice. Three Plan-Do-Study-Act (PDSA) Cycles were implemented:

1. May 2024 – Raised staff awareness via interdisciplinary electronic messaging and huddles, emphasizing patient experience score and promoting consistent use of Pro Re Nata (PRN) Acetaminophen and Ibuprofen.
2. November 2024 - Reinforced messaging and shared interim improved patient experience scores.
3. April 2025 - Transitioned Acetaminophen and Ibuprofen from PRN to scheduled dosing within the postpartum order set to support sustainability and standardization.

**Results / Learning:** Over the 15-month project period, median “top box” scores for Question 46 improved by 12%. PDSA cycle 1 achieved an initial 6% increase, with an additional 2% through cycle 2, and cycle 3 adding a further 4% improvement.

**Conclusions:** Targeted interventions, focused on enhancing staff awareness and transitioning to scheduled pain management significantly improved patient-reported postpartum pain experience following vaginal delivery.

**Future Directions:** Future efforts will focus on sustaining improvements through ongoing staff education and standardized protocols, expanding the SIMPLE approach to cesarian deliveries, and integrating patient-reported outcomes into routine postpartum care to further enhance pain management and overall patient experience.

**Disclosure:** None.

## (Illuminating True Surgical Demand through Wait List Data Quality at TOH: A Systems Approach)

**Authors:** Erik Mitchell, Kate Duke, Jenna Aubry, Leigh Lindhé, Danielle Dandridge

**Organization:** The Ottawa Hospital

**Introduction:** Access to timely surgical care in the Ottawa region faces persistent challenges, with prolonged wait times adversely affecting patient safety and experience and limiting the ability to accurately measure surgical demand. As of August 2024, The Ottawa Hospital (TOH) had approximately 11,400 patients awaiting surgery, 62% of whom exceeded target wait times. Additionally, 22% of waitlist entries had not been updated in over a year (i.e. stale cases), signifying critical data quality issues.



**Objective:** To improve surgical waitlist data quality at TOH in systemic way that enhances accuracy, accountability, and sustainability across clinical and administrative teams.

**Methods:** Root cause analysis identified systemic contributors to poor waitlist data quality, including limited administrative resources, inconsistent patient pathways and booking practices, high staff turnover, fragmented onboarding processes, and inconsistent leadership messaging.

In response, TOH launched a comprehensive data quality improvement strategy in fall of 2024, anchored in three pillars: (i) leadership empowerment and accountability, (ii) detailed waitlist review and clean-up, and (iii) multidisciplinary education.

This strategy included the review of ~2,500 stale cases, engaging surgical offices, data analysts, and a nurse-led task force to validate patient status. Cross-team data sharing enabled accurate tracking and regular reports allowed for monitoring of Key Performance Indicators (KPI). Educational efforts included a virtual Town Hall, refreshed training materials, and targeted sessions with surgical divisions and individual surgeon offices.

**Results / Learning:** By December 2024, TOH achieved: (i) 11% reduction in waitlist volume, (ii) 20% decrease in long-waiting patients, and (iii) reduction in stale cases from 22% to 7%. Throughout 2025, stale cases have remained below 10%, indicating sustained improvement. Key learnings include the importance of leadership engagement, consistent education, and integrated digital tools.

**Conclusions:** A systems-based approach to surgical waitlist management can yield measurable improvements in data quality and patient access. Empowering leadership and fostering multidisciplinary collaboration were critical to supporting a culture of safety and innovation in surgical access management.

**Future Directions:** TOH continues to drive sustainability through development of PowerBI-based tools, ongoing audits, and annual education cycles. Strategic planning is underway for piloting dedicated waitlist support roles across surgical services to address resource gaps and further enhance data integrity

**Disclosure:** None.