RISK WATCH

April 2020

Selected research, publications, and resources to promote evidence-informed safety and risk management in Canadian healthcare organizations. Prepared by Healthcare Risk Management staff at the Healthcare Insurance Reciprocal of Canada (HIROC). Titles with an open lock icon indicate that a publication is open access. For all others a subscription or library access is required; the librarian at your organization may be able to assist you. Please contact riskmanagement@hiroc.com for assistance if required.

COVID-19 Updates on HIROC.com

For information and resources related to COVID-19, please visit HIROC.com to access our *COVID-19 Updates page*. For a Q&A of Subscriber questions, log in and select *COVID-19: Your Questions Answered* from the Member Portal Links dropdown.

Lori Borovoy

EDITOR'S NOTE

In this month's Risk Watch, we feature a number of articles focusing on safety and quality improvement (QI). Vaisman et al. explores electronic hand hygiene monitoring and the Hawthorne effect. Purdy et al. explores relational dimensions in trauma care and encourages healthcare leaders to consider relationship-based quality improvement strategies, including translational simulation processes.

If you have any comments about these articles or Risk Watch, please email me at lborovoy@hiroc.com. We look forward to hearing from you.

HOT OFF THE PRESS

HAND HYGIENE/COMPLIANCE

Out of sight, out of mind: a prospective observational study to estimate the duration of the Hawthorne effect on hand hygiene events

Vaisman A, Bannerman G, Matelski J, et.al. *BMJ Qual Saf*. 2019 (online, March):1-7.

Study in Canadian using electronic hand hygiene monitoring (e-monitoring) to depict the duration of the Hawthorne effect after human auditors had left two transplant wards at a tertiary care centre. The study duration was 244 days, and e-monitoring detected 365,674 hand hygiene events across both wards out of a possible 911,791 opportunities, leading to an adherence rate of 40%. Authors concluded the Hawthorne effect on hand hygiene events appeared to last for a limited time period and further challenge the validity and value of human auditing and support the need for alternative and complementary monitoring methods.

QUALITY IMPROVEMENT/UNNECESSARY PROCEDURES

Improving urinary catheterization practices in a rural hospital in Ontario

Gazarin M, Ingram-Crooks J, Hafizi F, et al. *BMJ Open Qual*. 2020 (online, February):1-6.

Study in Canada aimed to reduce the unnecessary use of urinary catheters in hospitalized patients. Authors noted a significant improvement following the second PDSA cycle which harnessed the selection of champions to influence healthcare staff to follow newly implemented hospital protocols. Results showed a decrease of inappropriate catheter use to 0% following consistent implementation of protocols.

QUALITY IMPROVEMENT/RELATIONSHIPS

Doing our work better, together; a relationship-based approach to defining the quality improvement agenda in trauma care

Purdy E, McLean D, Alexander C, et al. *BMJ Open Qual*. 2020 (online, February):1-11.

Study in Australia to explore relational dimensions in trauma care, and how team members feel about their colleagues and their work, affecting performance. The study engaged a multidisciplinary network of 500 care providers across seven interdependent clinical disciplines. Interventions focused on structural, process and relational dimensions co-created with participants. Authors noted encouragement to healthcare leaders to consider relationship-based quality improvement strategies, including translational simulation processes, to improve care for patients with complex, interdependent journeys.

QUALITY IMPROVEMENT/PATIENT COMPLAINTS

Learning from complaints in healthcare: a realist review of academic literature, policy evidence and front-line insights

van Dael J, Reader T, Gillespie A, et al. *BMJ Qual Saf*. 2020 (online, February):1-12.

Study in the UK to assess how to effectively integrate patient complaints with quality monitoring and improvement. Results showed existing literature separates complaints into two distinct categories: 1) complaint handling; and 2) complaint analysis. Authors suggested if healthcare is better enabled to incorporate both approaches to standardize and analyze complaint data, results could impact quality improvement in many ways.

SAFETY/RESILIENCE ENGINEERING

Safety II professionals: how resilience engineering can transform safety practice

Provan D, Woods D, Dekker S, et al. *Reliab Eng Syst Saf*. 2020 (March);195:1-14.

Article describing safety management through two distinct modes of centralized control or safety management guided through adaptability. Authors define the two modes of safety management and explains the challenges and considers when professionals should re-inforce alignment, and when they should support frontline adaptations. “In a safety management mode of guided adaptability, the safety professional is part of what makes the organization successful, that is effectively adapting to emerging situations, and overcoming challenges where things didn’t work as planned or imagined. Safety professionals help their organizations be successful in a changing, complex world” (p.12).

HUMAN FACTORS/DIAGNOSIS

Application of human factors to improve usability of clinical decision support for diagnostic decision-making: a scenario-based simulation study

Carayon P, Hoonakker P, Schoofs Hundt A, et al. *BMJ Qual Saf*. 2020 (online, March);29:329-340.

Study in the US using human factors (HF) to design a clinical decision support (CDS) that supports improved diagnosis of pulmonary embolisms in the emergency department. Using comparative data, results showed better usability and an improved diagnostic processes using the HF-based CDS. Authors suggested using HF to design such systems can improve safety and healthcare provider workload.

PATIENT SAFETY/EMERGENCY DEPARTMENT

What do emergency department physicians and nurses feel? A qualitative study of emotions, triggers, regulation strategies, and effects on patient care

Isbell L, Boudreaux E, Chimowitz H, et al. *BMJ Qual Saf*. 2020 (online, January):1-11.

Study in the US to develop an understanding of what emergency department (ED) providers feel while working in the ED, what triggers these emotions, and how these emotions impact clinical decision making and patient care. Providers most frequently mentioned experiencing frustration, anger, sadness, and gratification as a result of three main triggers: patient factors (e.g. unreasonable expectations), hospital factors (e.g. limited resources) and system-level factors (e.g. overcrowding). Strategies providers use for emotion regulation and their effect on patient safety were discussed.

TRANSITIONS/EMERGENCY DEPARTMENT

Zero harm during transition in care from the emergency department to medical/surgical units

Loftin E, Andrews D, Mikitarian G, et al. *J Nurs Care Qual*. 2020 (April/June):35(2):153-157.

Performance improvement project in the US to create a process that provides safe transitions from the emergency department to medical/surgical units during hospitalizations. Interventions included an evidence-based checklist, defaulting to face-to-face communication during handoff, and concise and clear documentation that is essential to the continuum of care. Outcome measures were preventable physical injury (fall, medication error), lack of patient understanding, and death. Results showed a reduction in harm events from 48 at baseline (0.56% of transitions) to 0, and $139,000 in potential cost savings.

COMMUNICATION/TEAMWORK

Making room at the bedside: improving communication alongside medical education through interdisciplinary rounds

Wickersham A, Zavodnick J, Thum A, et al. *Am J Med Qual*. 2020 (online, March):1-7.

Study in the US to assess perceptions of communication, care coordination, and teamwork after making a change to the interdisciplinary bedside rounding model. Two new rounding processes were developed: care management rounds (CMR) to identify actions needed to move patient care forward, and interdisciplinary patient rounds (IPR) to increase communication of care goals between team members, allow time for teaching, and foster patient-centered decision making. Both physicians and nurses agreed there was more clarity in the patient's daily care plan postintervention and compared with preintervention surveys, physicians were more likely to agree that nurse-physician rounding will improve patient safety. Figures highlighting CMR discussion points and IPR workflow are provided.

Other Resources of Interest (all)

Adopting and integrating virtual visits into care: draft clinical guidance (March 2020). Ontario Health report providing guidance for healthcare providers on implementing virtual visits for their patients.

Benefits and risks of adopting cloud-based services in your organization (March 2020). Canadian Centre for Cyber Security document providing an overview of and tips for implementing cloud services.

Contractual risks amid the COVID-19 outbreak (March 2020). Borden Ladner Gervais LLP (CDN) article outlining the application of *force majeure* clauses in existing contracts and the role of allocating unexpected risk.

COVID-19 and the workplace: FAQs for employers (March 2020). Borden Ladner Gervais LLP (CDN) article providing frequently asked questions and answers for employers as related to COVID 19.

COVID-19 fraud (March 2020). Government of Canada bulletin providing information on COVID–19 fraud schemes and trusted resources.

FDA informs patients, providers and manufacturers about potential cybersecurity vulnerabilities in certain medical devices with Bluetooth Low Energy (March 2020). U.S. Food and Drug Administration news release on medical device vulnerabilities and recommendations.

Quality Rounds Ontario: the promise of virtual care (February 2020). Ontario Health webinar featuring leaders in virtual care and their processes used to successfully offer virtual clinics.

Top 10 patient safety concerns 2020 (March 2020). ECRI (US) report outlining the top patient safety concerns spanning the continuum of care (free with registration).

Virtual care recommendations for scaling up virtual medical services (February 2020). Canadian Medical Association report outlining 19 recommendations to enable and expand the implementation of virtual care in Canada.