RISK WATCH

June 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.

EDITOR'S NOTE

Sara Chow

This month, we continue with the Safety-II theme, a way of thinking about safety that focuses on ensuring as many things as possible go right. It complements the traditional way of thinking about safety that is focused on ensuring as few things as possible go wrong (Safety-I). Anderson et al. recommend expanding the purpose of safety investigations to include Safety-II perspectives to better align demand ("work as imagined") and capacity ("work as it is done") in order to reduce the need for adaptations and the potential for more risks to be introduced into the system. Stretton introduces the Lilypond Model to describe safety performance. It "places each adverse event as lily pads floating on the surface of the pond, which vary in size based on the frequency of their occurrence. This allows the adverse events to be related to each other directly by the root, or associatively by recognising they are all products of the same system". This theme is supplemented by articles on adverse events.

We hope you enjoy this month's selection of articles. If you have any comments, I can be reached at schow@hiroc.com.

HOT OFF THE PRESS

ADVERSE EVENTS/PEDIATRICS

Adverse events in the paediatric emergency department: a prospective cohort study

Plint A, Stang A, Newton A, et al. *BMJ Qual Saf*. 2020 (online, April):1-12.

Study in Canada to estimate the risk of adverse events (AE) for children who attended a pediatric emergency department (ED) over a one year period. Results showed 2.5% of patients experienced an AE related to care received in the ED and of these, 88% were deemed preventable. Healthcare management and diagnostic issues comprised the majority of AE at 52% and 46%, respectively. Authors noted children at the extremes of age, those presenting with mental health complaints and those arriving by ambulance appear at increased risk for AEs.

SAFETY-II/NEVER EVENTS

Using Safety-II and resilient healthcare principles to learn from Never Events

Anderson J, Watt A. *Int J Qual Health Care*. 2020 (April);32(3):196-203.

Study in the UK in which a secondary analysis of root cause analysis (RCA) reports of Never Events was conducted to determine whether and how Safety-II and resilient healthcare principles could contribute to improving the quality of investigation reports and hence preventing future Never Events. Authors described the concept of "work as it is imagined" and "work as it is done" as a key feature of Safety-II. Four methods of analysis were used to review 35 Never Events reported over a three year period. Results showed RCA reports had low to moderate effectiveness ratings and low reilience ratings, and many system vulnerabilities were not addressed in proposed actions. Authors provided five recommendations for incorporating Safety-II concepts into RCA processes.

QUALITY IMPROVEMENT/HUMAN FACTORS

Overcoming COVID-19: what can human factors and ergonomics offer?
Gurses A, Tschudy M, McGrath-Morrow S, et al. *J Patient Saf Risk Manag*. 2020 (April);25(2):49-54.

Article out of the US describing how human factors and ergonomics (HFE) can contribute to the COVID-19 pandemic response. Authors provided examples of how HFE methodologies informed workflow redesigns implemented as part of COVID-19 pandemic preparations in an academic pediatric ambulatory clinic. Authors identified where HFE can contribute to and improve the effectiveness of a pandemic response including: Just-in-time training development, adapting workflows and processes, restructuring teams and tasks, developing effective mechanisms and tools for communication, engaging patient and families to follow the recommended practices (e.g., social distancing, revised hospital visitation policies), and identifying and mitigating barriers to implementation of plans, with the goal of improving both the current and future pandemic responses.

QUALITY IMPROVEMENT/PATIENT CENTRED CARE

Implementing the patient care collaborative model in three general internal medicine units: a mixed-methods healthcare improvement initiative
LoPresti K, Camera J, Barrett E, et al. *BMJ Open Quality*. 2020 (April);9(2):e000815.

Study in Canadian to explore staff perceptions and patient outcomes associated with different levels of the Patient Care Collaborative (PCC) model implementation among three general internal medicine units. Using a mix of qualitative and quantitative methodologies including staff interviews, focus groups, and outcome data using health record information, results demonstrated a correlation between staff perceptions and successful implementation, as well as a positive correlation between implementation of the PCC and reduced patient harm, and shorter lengths of stay.

INTERPROFESSIONAL CARE/PHYSICIAN ASSISTANTS

Understanding health professional role integration in complex adaptive systems: a multiple-case study of physician assistants in Ontario, Canada
Burrows K, Abelson J, Miller P, et al. *BMC Health Serv Res*. 2020 (April);20(1):365.

Study in Canada to explore factors impacting successful role integration of physician assistants (PAs) into family medicine, emergency medicine, surgery, and inpatient medicine. Analysis of interviews with 46 healthcare providers and administrators derived a number of facilitators and barriers across four interconnected themes: PA role contribution to healthcare settings; developing role awareness and role clarity; supervisory relationship dynamics; and variability in funding and remuneration. Authors discussed each theme and concluded, from a practice perspective, "PA enthusiasm, flexibility, and adaptability should be nurtured and supported in healthcare settings, especially where high-physician turnover, patient volume, and teaching requirements challenge collaborative and interprofessional care opportunities" (p.12).

SURGICAL/PRIORITIZING CARE

Medically necessary, time-sensitive procedures: scoring system to ethically and efficiently manage resource scarcity and provider risk during the COVID-19 pandemic
Prachand V, Milner R, Angelos P, et al. *J Am Coll Surg*. 2020 (online, April):1-8.

Study in the US to develop a scoring system that integrates factors affecting decisions about when to proceed with medically necessary, time-sensitive (MeNTS) procedures in the setting of the COVID-19 pandemic. These factors, which are not overtly considered in the already complicated processes of clinical judgment and shared decision-making, include resource limitations, COVID-19 transmission risk to providers and patient factors. The scoring system to prioritize MeNTS incorporates 21 relevant factors into three dimensions: procedure (7 factors), disease (6 factors), and patient (8 factors). Authors concluded that the scoring system can also be used to facilitate organization and prioritization of the large backlog of MeNTS cases that will await completion when the pandemic begins to subside. A sample of the MeNTS tool is provided.

SAFETY/ADVERSE DRUG REACTIONS

Adverse drug reactions in Canada (2019-2018): insights from the Canada Vigilance Database
Maity T, Longo C. *Healthc Q*. 2020 (April);23(1):40-46.

Article analyzing adverse drug reactions in Canada using reports from the Canada Vigilance Adverse Reaction online database. Authors noted about 437,000 suspected adverse drug reactions were reported between 2009 and 2018 and described serious outcomes wherein 8% of patients died, 2% were disabled and 22% required in-patient hospitalization. Pharmaceutical products and disease indications associated with the adverse drug reaction reports were also provided.

ADVERSE EVENTS/DIAGNOSTIC ERRORS

Prevalence of harmful diagnostic errors in hospitalised adults: a systematic review and meta-analysis
Gunderson C, Bilan V, Holleck J, et al. *BMJ Qual Saf*. 2020 (online, April):1-11.

Study in the US to estimate the prevalence of diagnostic errors in hospitalised patients that resulted in harm. Pooled data for more than 80,000 patients suggests an error rate of 0.7%. Fourteen diagnoses accounted for about 54% of all diagnostic errors that were described in detail; the most common were malignancy (11%), pulmonary embolism (10%), and aortic aneurism (4%). “The fact that a wide range of common diseases are missed implies that efforts to improve diagnosis must ultimately target the basic processes of clinical diagnosis, including both cognitive factors as well as system-related factors. The finding that 14 diagnoses account for more than half of all diagnostic errors also suggests opportunity for certain diagnoses to be targeted” (p.9).

SAFETY-II/SAFETY MODELS

The Lilypond: an integrated model of Safety II principles in the workplace. A quantum shift in patient safety thinking
Stretton P. *J Patient Saf Risk Manag*. 2020 (online, April): 25 (2):85-90.

Article explaining “the Lilypond” as a new conceptual model to describe patient safety performance. Authors noted divergence from established patient safety models to develop the reality of complexity within healthcare systems and incorporating Safety II principles. The Lilypond Model “allows all spectrums of performance outcomes to be considered providing opportunities to learn and improve from every event” (p. 90).

Other Resources of Interest (all)

Canadian Privacy Commissioner guidance for videoconferencing (May 2020). Borden Ladner Gervais LLP (CA) article summarizing the Office of the Privacy Commissioner of Canada's 11 tips for videoconferencing.

COVID-19: patient safety and quality improvement skills to deploy during the surge (May 2020). International Journal for Quality in Health Care (IE) article highlighting five ways to support patients, staff and organizations.

COVID-19: team and human factors to improve safety (May 2020). Agency for Healthcare Research and Quality (US) primer outlining strategies for reducing human errors that require minimal resources to employ.

Feedback, reflection and team learning for COVID-19: development of a novel clinical event debriefing tool (May 2020). British Medical Journal article describing a resource designed to help teams gather information about teamwork, medical management and crisis resource management for COVID-19.

Fighting coronavirus phishing scams (May 2020). Risk Management Magazine (US) article reviewing the continued increase in coronavirus payment fraud attempts, with six tips to avoid becoming a victim.

Measuring complexity: moving toward standardized quality measures for the field of complex care (May 2020). National Center for Complex Health and Social Needs and Institute for Healthcare Improvement (US) report with eight recommendations.

Recent amendments to the Personal Health Information Protection Act (May 2020). Borden Ladner Gervais LLP (CA) article discussing new measures to encourage compliance with PHIPA and better management of electronic health records.

Redesign of a rural emergency department to prepare for the COVID-19 pandemic (April 2020). Canadian Medical Association Journal article highlighting one organization's approach to preparing the emergency department.

The state of ransomware 2020 (May 2020). Sophos (UK) report detailing survey results of 5,000 IT managers across 26 countries; 50% of respondents, irrespective of size, reported being hit by ransomware in the last year.