July 2021

RISK WATCH QUARTERLY

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.

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.

Editor's Note

Anthony Soung Yee

The July 2021 issue of Risk Watch includes a quarterly offering of articles on the three main HIROC patient safety drivers: maternal neonatal care, mental health death by suicide under care, and patient deterioration.

On the subject of maternal neonatal care, a study by Villar et al. (2021) provides topical insights into perinatal morbidity and mortality outcomes across 18 countries among pregnant women with and without COVID-19. You will also find a systematic review of articles on maternal brain death in pregnancy from Dodaro et al. (2021), as well as a qualitative study from Ghag et al. (2021) on considerations for the sustainability of an obstetric emergencies training programme in the Phillipines.

On the subject of mental health, death by suicide under care, you will find innovative work using models to predict suicide attempts among mental health patients. From Walsh et al. (2021), AI-driven models are implemented in an electronic health record to predict suicidal ideation and suicide attempt. As well, Coley et al. (2021) examine racial and ethnic disparities in predictive models of death by suicide after mental health visits, highlighting the need to improve predictive performance in marginalized populations. Keller et al. (2021) developed and evaluated a tool for assessing patient safety by perceived triggers of preventable adverse events using patient-validated measures.

On the subject of patient deterioration, you will find articles that leverage various frameworks such as the Safety Measurement and Monitoring Framework (SMMF) and Theoretical Domains Framework to systematically identify themes and gaps in both older adult care homes (Rand et al. (2021)) and for in-patient care physicians (Walker et al., 2021), respectively. Finally, Barwise et al. (2021) conducted a qualitative study on the perspectives of clinician stakeholders regarding diagnostic error and delay, highlighting key themes for improving patient safety.

You will also find a collection of resources, including a list of COVID-19 hospitalization statistics, articles on approaches and tools for policy makers responding to risks, as well as tips and resources for preventing and responding to children's exposure to intimate partner violence.

If you have feedback about this edition of Risk Watch, please send them to me at asoungyee@hiroc.com.

Tell us what you think!

Please take a moment to complete a short survey on the new Risk Watch Quarterly.

MATERNAL NEONATAL

Maternal and Neonatal Morbidity and Mortality Among Pregnant Women With and Without COVID-19 Infection The INTERCOVID Multinational Cohort Study

Villar J, Ariff S, Gunier RB, et al. JAMA Pediatr. 2021 Apr 22:e211050. doi: 10.1001/jamapediatrics.2021.1050. Epub ahead of print. PMID: 33885740; PMCID: PMC8063132.

Multi-national cohort study examining the perinatal morbidity and mortality outcomes of 2130 women across 18 countries. The study showed an association between pregnant individuals with COVID-19 diagnosis and higher rates of adverse outcomes, including maternal mortality, preeclampsia, and preterm birth compared with pregnant individuals without COVID-19 diagnosis.

Brain death in pregnancy: a systematic review focusing on perinatal outcomes

Dodaro MG, Seidenari A, Marino IR, Berghella V, Bellussi F. Am J Obstet Gynecol. 2021 May;224(5):445-469. doi: 10.1016/j.ajog.2021.01.033. Epub 2021 Feb 16. PMID: 33600780.

Systematic review looking at the fetal viability outcomes associated with maternal somatic support in cases of maternal brain death. This article provides critical insights that support clinicians in this very complex maternal and fetal scenarios. This information may be helpful for clinicians as they counsel families that face this rare and extremely complex clinical scenario.

Key components influencing the sustainability of a multi-professional obstetric emergencies training programme in a middle-income setting: a qualitative study.

Dodaro MG, Seidenari A, Marino IR, Berghella V, Bellussi F. Am J Obstet Gynecol. 2021 May;224(5):445-469. doi: 10.1016/j.ajog.2021.01.033. Epub 2021 Feb 16. PMID: 33600780.

Study from the Phillipines looking at effective training for obstetrical emergencies that improves maternity care in the middle-income setting in the Phillipines. This two year project examined barriers to sustainability by interviewing various members of the multpi-diciplinary team. Data from focus groups helped to identify attributes of local champions, multi-level organizational involvement and organizational challenges as important for sustainability.

MENTAL HEALTH - DEATH BY SUICIDE UNDER CARE

Prospective Validation of an Electronic Health Record–Based, Real-Time Suicide Risk Model

Walsh CG, Johnson KB, Ripperger M, Sperry S, Harris J, Clark N, Fielstein E, Novak L, Robinson K, Stead WW. JAMA Netw Open. 2021 Mar 1;4(3):e211428. doi: 10.1001/jamanetworkopen.2021.1428. PMID: 33710291; PMCID: PMC7955273.

US-based study evaluating the performance of a suicide attempt risk prediction model implemented in an electronic health record to predict subsequent suicidal ideation and suicide attempt. The authors describe the volumes needed to screen in nonpsychiatric specialty settings in a large clinical system in order to devlelop a real-time predictive model of suicide attempt risk. Assuming that research-valid models can be developed, the authors posited that this will reduce inaccuracy in clinical practice, misclassification of risk, wasted effort, and missed opportunities to correct and prevent such problems. The authors cited that the next step involve pairing of the models with low-cost, low-harm preventive strategies in a pragmatic trial of effectiveness.

MENTAL HEALTH - DEATH BY SUICIDE UNDER CARE

Racial/Ethnic Disparities in the Performance of Prediction Models for Death by Suicide After Mental Health Visits

Coley RY, Johnson E, Simon GE, Cruz M, Shortreed SM. JAMA Psychiatry. 2021 Apr 28:e210493. doi: 10.1001/jamapsychiatry.2021.0493. Epub ahead of print. PMID: 33909019; PMCID: PMC8082428.

US-based diagnostic/prognostic study examining racial and ethnic disparities within outpatient mental health visits in seven large integrated health care systems between 2009-2017, with follow-up through 2017. Researchers found that suicide prediction models may provide fewer benefits and more potential harms for Indigenous/Aboriginal, Black or populations with unreported race/ethnicity, compared with White, Hispanic, and Asian patients. The authors concluded that improving predictive performance in these populations should be prioritized to address health disparities. hospital to apply and use lean methodology to enhance the use of space and resources.

Development of the Perceptions of Preventable Adverse Events Assessment Tool (PPAEAT): Measurement Properties and Patients' Mental Health Status

Keller FM, Derksen C, Kötting L, Schmiedhofer M, Lippke S. Int J Qual Health Care. 2021 Apr 16;33(2):mzab063. doi: 10.1093/intqhc/mzab063. PMID: 33822086.

German study aiming to develop and evaluate the psychometric properties of a questionnaire, the Perceptions of Preventable Adverse Events Assessment Tool (PPAEAT), for the assessment of patient safety by perceived triggers of preventable adverse events. Researchers identified five key factors contributing to preventable adverse event including: information and communication with patients, time constraints of health-care professionals, diagnosis and treatment, hygiene and communication among health-care professionals, and knowledge and operational procedures. The study concluded that the PPAEAT exhibits good psychometric properties, which supports its use in future research and primary health-care practice. The authors stated that further validation of the PPAEAT in different settings, languages and larger samples is needed.

PATIENT DETRIORATION

Measuring Safety in Older Adult Care Homes: A Scoping Review of the International Literature

Rand S, Smith N, Jones K, Dargan A, Hogan H. BMJ Open. 2021 Mar 11;11(3):e043206. doi: 10.1136/bmjopen-2020-043206. PMID: 33707269; PMCID: PMC7957135.

UK study identifying measures that could be used as indicators of safety for quality monitoring and improvement in nursing care homes. The key information from 45 articles was mapped to the Safety Measurement and Monitoring Framework (SMMF) in healthcare based on five dimensions relevant to safety monitoring and measurement (harm, reliability, sensitivity to operations, anticipation and preparedness, integration and learning). The authors identified a number of potential gaps including user experience, psychological harm related to the care home environment, abusive or neglectful care practice and the processes for integrated learning.

A Qualitative Exploration Across Diverse Acute Care Settings in the United States

Barwise A, Leppin A, Dong Y, Huang C, Pinevich Y, Herasevich S, Soleimani J, Gajic O, Pickering B, Kumbamu A. What Contributes to Diagnostic Error or Delay? J Patient Saf. 2021 Jun 1;17(4):239-248. doi: 10.1097/PTS.0000000000000817. PMID: 33852544.

US-based multisite qualitative study utilizing focus groups to analyze the perspectives of key clinician stakeholders regarding diagnostic error and delay (DEOD). Results indicated that the interaction of factors including diverse organizational and system issues, challenges with interpersonal communication and coordination of tasks, and behaviours of patients and clinicians impeded the process of making accurate and timely diagnoses. The complexity and interplay of these factors highlighted the need for parallel approaches to demonstrably and efficiently reduce the rates of DEOD.

PATIENT DETRIORATION

Identifying barriers and facilitators to recognition and response to patient clinical deterioration by clinicians using a behaviour change approach: A qualitative study.
Walker RM, Boorman RJ, Vaux A, Cooke M, Aitken LM, Marshall AP. J Clin Nurs. 2021 Mar;30(5-6):803-818. doi: 10.1111/jocn.15620. Epub 2021 Jan 12. PMID: 33351998.

Australia-based qualitative study identifying barriers and facilitators that impact clinicians' absent or delayed responses to patient clinical deterioration by utilizing a Theoretical Domains Framework. Results revealed seven major themes: (a) information transfer, (b) ownership of patient care, (c) confidence to response, (d) knowledge and skills, (e) culture, (f) emotion, and (g) environmental context and resources. The findings suggested that traditional hierarchies in health organizations contributed to a disorganized and rigid culture that may lead to emotional distress in clinicians. This highlighted the importance of promoting interdisciplinary training, collaborative decision-making, and improving communication practices at all levels of care to ensure optimal patient safety.

OTHER RESOURCES OF INTEREST

COVID-19 hospitalization and emergency department statistics *(CIHI, March 2021).*
CIHI article containing statistics for patients with a diagnosis of COVID-19 between January to November 2020, including more than 13,900 hospital stays in Canada (excluding Quebec).

Preventing and Responding to Children's Exposure to Intimate Partner Violence *(Encyclopedia on Early Childhood Development, April 2021).*
Article summarizing what is known in relation to Intimate Partner Violence including detection of and early response to children's exposure to IPV to prevent recurrence, and support to limit or prevent ill effects once a child has experienced it.

Clean Your Hands Day Communications Toolkit *(The Health Foundation, February 2021).*
Toolkit containing information to promote hand hygiene to stakeholders and members, in conjunction with Clean Your Hands Day on May 5, 2021.

How can policymakers plan better for the long term? *(The Health Foundation, February 2021).*
Overview of approaches and tools for policy makers to respond to risks, sustain action to meet complex policy goals, and protect resources for future generations.

Beyond root cause analysis: How variation analysis can provide a deeper understanding of causation in complex adaptive systems *(Stretton, April 2021).*
Paper proposing an approach to understanding of causation that addresses Hollnagel's 'hypothesis of different causes' and integrates Safety I and Safety II approaches, in the form of Stretton's Lilypond Model.