Selected research, publications, and resources to promote evidence-informed 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**

This month’s Risk Watch features a number of articles (many of them Canadian) on quality improvement implications in healthcare and creating a safety culture focused on patient-centred care in all settings. Hutton et al. provide evidence of the safety of home births among low-risk pregnancies. Carson et al. set out to ensure the right information is sent to the appropriate provider, noting “seeking feedback from residents, nurses, and ward clerks was also important to shape implementation strategies.” Berntsen et al. report on the positive effects of involving elderly patients in the development of their care plans. Walsh et al. identify interventions that can be implemented by hospitals to target physician burn-out. Finally, Votova et al. discuss how engaging leaders across the organization can impact patient safety, stating “frontline professionals or teams may dispute or resist change because they have been insufficiently engaged in the change strategy or it is not culturally sensitive; this is more likely when externally driven system-wide approaches are introduced.”

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

**HOT OFF THE PRESS**

**PERINATAL/NEONATAL HEALTH**

Perinatal or neonatal mortality among women who intend at the onset of labour to give birth at home compared to women of low obstetrical risk who intend to give birth in hospital: a systematic review and meta-analyses

Hutton E, Reitsma A, Simioni J, et al. *E Clinical Medicine*. 2019 (September);14:59-70.

Canadian study to assess the morbidity and mortality risk factors to the fetus or newborn among women with low risk pregnancies in well-resourced countries who intend to give birth at home compared to those who intend to give birth in the hospital setting. Results suggested no increased risk among women who intend to give birth at home. Authors noted there is no increased perinatal or neonatal morbidity or mortality experienced by nulliparous women who intend to labour in the home setting accompanied by a midwife who is well integrated into the healthcare system.

**DIAGNOSIS/CLINICAL DECISION SUPPORT**

Clinical decision support for early recognition of sepsis

Amland R, Hahn-Cover K. *AM J Med Qual*. 2019 (September);35(5):494-501.

Study in the US to assess the effectiveness and impact of a cloud based clinical decision support system (CDS) developed to assist healthcare providers in diagnosing sepsis. Results showed the sepsis CDS was as reliable as providers in identifying patients presenting with symptoms of sepsis and was able to identify these patients at earlier stages. Authors suggest this system could enable earlier identification and notification to healthcare providers to begin treatment for sepsis and reduce the disease progression and outcomes.
PERSON CENTRED CARE/MULTI-MORBIDITY

Person-centred, integrated and pro-active care for multi-morbid elderly with advanced care needs: a propensity score-matched controlled trial
Berntsen G, Dalbakk M, Hurley J, et.al. BMC Health Serv Res. 2019 (online, October):1-17.

Study in Norway to explore the design of a Patient-Centred Team (PACT) intervention across primary and secondary care for elderly individuals with complex long term needs. The PACT team collaborated with the patient to make and deliver a person-centred, integrated, pro-active, multi-morbidity care plan. Results showed frail multi-morbid elderly who received the PACT intervention had a reduced risk of high-level emergency care, increased use of low-level planned care and reduced mortality risk.

SAFETY CULTURE/LEADERS

Doctor, how can we help you? Qualitative interview study to identify key interventions to target burnout in hospital doctors
Walsh G, Hayes B, Freeney Y, et.al. BMJ Open. 2019 (online, September):1-10.

Study in Ireland to explore priority interventions for the prevention and reduction of work stress and burnout with hospital physicians. Authors noted practical, system focused interventions were found to be the most needed and provide primary, secondary, and tertiary level interventions. Primary-level interventions targeting fundamental issues contributing to increased work stress across the system were identified as higher priority than secondary-level and tertiary-level interventions.

QUALITY IMPROVEMENT/PDSA

Can quality improvement improve the quality of care? A systematic review of reported effects and methodological rigor in plan-do-study-act projects
Knudsen S, Laursen H, Johnsen S, et al. BMC Health Serv Res. 2019 (online, October):1-10.

Systematic literature review in Denmark over a 2 year period to examine whether Plan-Do-Study-Act (PDSA) based quality improvement projects show self-reported effects and are conducted according to key features of the method. Authors conclude of the 120 quality improvement projects included in the study, 98% reported improvement, however only 27% described the specific quantitative aim and reached it.

QUALITY IMPROVEMENT/LABORATORY TESTING

Improving laboratory test utilisation at the multihospital Yale New Haven Health System
Harb R, Hajdasz D, Landry M, et al. BMJ Open Qual. 2019 (online, October):1-9.

Quality improvement initiative in the US aimed to improve laboratory test utilisation in a multihospital health system. Results showed a reduction in unnecessary laboratory testing following implementation of interventions in three areas: (1) improvements to a computerized physician order entry system resulted in decreased obsolete and misused testing, (2) hard stops decreased duplicate testing, (3) educational sessions decreased the amount of routine laboratory testing. Authors noted the financial impact of optimizing laboratory test utilisation may differ across organizations but can have a significant impact on providing safer care to patients.

IMPLEMENTATION SCIENCE/LEADERS

Implementation science as a leadership capability to improve patient outcomes and value in healthcare
Votova K, Laberge A, Grimshaw J, et al. Healthc Manage Forum. 2019 (November);32(6):307-312.

Article providing an overview of the three aims implementation science (i.e. describing the process of translating research into practice, understanding what influences outcomes (enablers and barriers), and evaluation) and the parallels between it and LEADS, a leadership framework in Canada consisting of five domains and 20 leadership capabilities that provides a common language for health leaders.
QUALITY IMPROVEMENT/COMMUNICATION

**Paging the right resident the first time on general internal medicine: a quality improvement project**
Carson J, Gottheil S, Dyck B, et al. *Jt Comm J Qual Patient Saf.* 2019 (October);45(10):711-716.

Study in a Canadian academic teaching hospital to reduce the number of pages to general internal medicine (GIM) residents by 25% in 10 months. After a root cause analysis, interventions implemented included displaying daily patient assignments on showboards, redirecting switchboard calls to GIM residents, and forwarding pagers during mandatory teaching sessions, a time when nurses had difficulty contacting residents. Results showed a 38% decrease in the number of pages and an improvement in communication efficiency.

NEEDLESTICK INJURY/OPERATING ROOM

**Safety and communication in the operating room: a safety questionnaire after the implementation of a blood-borne pathogen exposure checkpoint in the Surgical Safety Checklist preprocedure time-out**
Kane P, Marley R, Daney B, et al. *Jt Comm J Qual Patient Saf.* 2019 (October);45(10):662-668.

Study in the US to determine whether incorporating a blood-borne pathogen exposure checkpoint in the Surgical Safety Checklist improved providers’ perception of safety and communication in the operating room (OR). The checkpoint was to establish a discussion for determining method of sharps transfer, and identifying both left-handed and novice team members. Authors noted there were improved perceptions of improved safety among providers, likely due to awareness of sharps in the OR and emphasis on communication during transfers.

Other Resources of Interest (all)

**Expanding police powers under the new Missing Persons Act: implications for health-care organizations** (October 2019). Borden Ladner Gervais LLP (CDN) article describing the implications for healthcare providers related to requests for records and the duty to comply, following implementation of the Missing Persons Act.

**No-CPR orders – recent legal developments** (October 2019). Borden Ladner Gervais LLP (CDN) article describing a lawsuit which prompted amendments to the College of Physicians and Surgeons of Ontario’s end of life policy.

**Ontario court of appeal releases decision confirming common law definition of death but leaves door open to future challenge** (October 2019). Borden Ladner Gervais LLP (CDN) article describing a patient’s family bringing forward a freedom of religion challenge to the medical and common law definition of death (i.e. neurological).

**SickKids Foundation - enterprise risk management** (September 2019). Canadian Lawyer article highlighting Innovatio Award recipient SickKids Foundation on their risk management program that addresses future business and strategic uncertainties.