RISK WATCH

September 2019

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

Diagnostic errors is a key risk in HIROC claims, covering a broad range of allegations in which a correct diagnosis is not determined for a patient in a timely manner. In this month's Risk Watch, we feature three articles on this topic. Abe et al. examined the link between a misdiagnosed site of infection on patient outcome; they found increased odds of patient mortality when the initial site was misdiagnosed, pointing to the importance of administering the optimal antibiotic in a timely manner. Newman-Toker et al. reviewed nearly 60,000 malpractice claims to identify common diseases that, when missed, cause the most serious harms in the "Big Three" of diagnostic errors: vascular events, infections, and cancers. Emani et al. described an innovative intervention to address follow up of abnormal test results, creating new workflows for patient outreach and tracking.

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

HOT OFF THE PRESS

MISDIAGNOSIS/INFECTION

In-hospital mortality associated with the misdiagnosis or unidentified site of infection at admission

Abe T, Tokuda Y, Shiraishi A, et al. *Crit Care*. 2019 (online, June);23(1):1-9.

Study in Japan to assess the effect of misdiagnosed sites of infection at initial examination on in-hospital mortality. Results showed 113 of 974 (12%) emergency department patients with suspected infection had a misdiagnosed initial site of infection, and patients with urinary tract, soft tissue, and rare sites of infection (e.g. endocardium, wound) had a higher risk of misdiagnosis. The odds of mortality were two-fold higher for these patients compared to those with an accurately identified site.

MISDIAGNOSIS/CLAIMS

Serious misdiagnosis-related harms in malpractice claims: The "Big Three" – vascular events, infections, and cancers

Newman-Toker D, Schaffer A, Yu-Moe C, et al. *Diagnosis (Berl)*. 2019 (July);6(3):227-240.

Study in the US using 55,377 closed medical malpractice claims to assess the most common misdiagnosis-related adverse events. Results showed three diseases accounted for nearly 75% of all misdiagnosis claims: cancers (38%); vascular events such as stroke (23%); and infections such as sepsis (14%).

AUDIO-VIDEO RECORDING/OPERATING ROOM

Exploring stakeholder perceptions around implementation of the Operating Room Black Box for patient safety research: a qualitative study using the theoretical domains framework

Etherington N, Usama A, Patey A, et.al. *BMJ Open Qual.* 2019 (online, August):1-8.

Study at an academic teaching hospital in Canada to identify barriers and enablers to implementing the OR Black Box. Interviews with 15 patients, 17 clinicians, and 9 senior leaders showed stakeholders were generally supportive of the technology; five key factors to improve uptake and future implementation (e.g. situate the technology within a learning context, highlight potential to improve practice and safety) were identified. Authors noted each stakeholder group had different concerns and messaging strategies need to be tailored accordingly.

MEDICATION RECONCILIATION/DISCHARGE

Implementation and spread of a simple and effective way to improve the accuracy of medicine reconciliation on discharge: a hospital-based quality improvement project and success story

Botros S, Dunn J. *BMJ Open Qual*. 2019 (online, August):1-9.

Project at an acute care hospital in Scotland to implement a standardized medication reconciliation process for surgical patients with the aim of improving the accuracy of discharge prescriptions and clear communication regarding changes in medication history. The intervention entailed reviewing the medication list on admission and inpatient prescription chart to help create the discharge prescriptions. The percentage of discharge prescriptions deemed accurate increased from 45% to 96% in eight months. Authors discussed six factors that contributed to the project's success.

PREVENTABLE HARM

Prevalence, severity, and nature of preventable patient harm across medical care settings: systematic review and meta-analysis

Panagioti M, Khan K, Keers R, et al. *BMJ*. 2019 (online July):1-11.

Systematic review of 70 studies involving 337,025 patients to explore the prevalence, severity, and nature of preventable patient harm across a range of medical settings globally. Authors noted, around one in 20 patients are exposed to preventable harm in medical care. "Approximately 12% of preventable patient harm causes permanent disability or patient death and is mostly related to drug incidents, therapeutic management, and invasive clinical procedures" (p.1).

ADVERSE EVENT/MEASUREMENT

Study of a multisite prospective adverse event surveillance system

Forster A, Huang A, Lee T, et al. *BMJ Qual Saf*. 2019 (online, July):1-9.

Study in Canada describing a prospective adverse event (AE) surveillance method to evaluate rates of AEs at five different hospitals across two provinces. Authors suggested this method is more effective than incident reports and chart reviews in measuring patient safety events.

INCIDENT REVIEW

Review of alternatives to root cause analysis: developing a robust system for incident report analysis

Hagley G, Mills B, Watts B, et al. *BMJ Open Qual*. 2019 (online, August):1-8.

Study identifying the advantages and disadvantages of seven tools that can be used to investigate no-harm and low harm incidents that are less resource intensive than root cause analysis. Authors noted "several tools can be uniquely combined into a coherent system like the British and Canadian frameworks" (p.5).

QUALITY IMPROVEMENT/SUSTAINABILITY

Exploring the sustainability of quality improvement interventions in healthcare organisations: a multiple methods study of the 10-year impact of the 'Productive Ward: Releasing Time to Care' programme in English acute hospitals

Robert G, Sarre S, Maben J, et.al. *BMJ Qual Saf*. 2019 (online, July):1-10.

Study to explore sustainability of the Productive Ward: Releasing Time to Care program implemented in acute care hospitals in the UK over a decade ago. Results showed the Productive Ward has informed wider quality improvement (QI) organizational strategies that remain in place today. As an ongoing QI approach, Productive Ward has not been sustained.

MISDIAGNOSIS/AMBULATORY

Ambulatory safety nets to reduce missed and delayed diagnoses of cancer

Emani S, Sequist T, Lacson R, et al. *Jt Comm J Qual Patient Saf.* 2019 (Aug);45(8):552-557.

Study to explore the use of two ambulatory safety nets (ASN), one focusing on colon cancer and the other on lung cancer, in an academic medical centre in the US. ASNs are described as a set of tools, reports, and workflows to create a high-reliability system for abnormal test result management. The effectiveness of the colon cancer ASN was 44%, and the effectiveness of the lung cancer ASN was 57%. Authors discussed five key lessons with respect to ASN as a strategy for addressing ambulatory patient safety.

Other Resources of Interest (all)

Governance best practices for high performing health provider boards (August 2019). Borden Ladner Gervais LLP (CDN) guidance for prospective Ontario Health Team partner boards as they work toward integration.

Hospitals not responsible for costs of physician retraining or clinical supervision (July 2019). Borden Ladner Gervais LLP (CND) article outlining a Health Professionals Appeal and Review Board (HPARB) decision.

Missing persons in Ontario – new police powers and the impact of the new law on healthcare providers (August 2019). Article outlining the implications of the *Missing Persons Act, 2018* for healthcare providers when releasing personal health information to police.

Prescribing for non-residents: know your risks (August 2019). Canadian Medical Protective Association article on non-Canadian residents seeking less expensive medications in Canada and understanding associated risks.

Release of personal information to police: your privacy rights (August 2019). Information and Privacy Commissioner of Ontario fact sheet describing situations where public sector organizations may share personal information with law enforcement agencies.

The gift of fine china: an appropriate 20th anniversary look back (July 2019). *American Journal of Medical Quality* editorial summarizing their 11 most impactful articles on preventable medical harm.

The public inquiry into safety and security of residents in the long-term care homes system (July 2019). The report and recommendations stemming from the government of Ontario inquiry into the circumstances and contributing factors which led to the deaths of residents in long-term care.