RISK WATCH

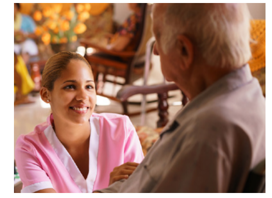
March 2018

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.

HOT OFF THE PRESS

ADVERSE EVENTS/HOME CARE

Adverse events in home care: Identifying and responding with interRAI scales and clinical assessment protocols



Sinn C, Betini R, Wright J, et al. *Can J Aging*. 2018 (online ahead of print, January);37(1):60-69.

High risk patient strategy project and study in an Ontario Local Health Integration Network to develop a decision support tool to proactively apply to more than 36,000 home care patients on any given day, in order to identify service recipients who are at greatest risk of long-term care placement or death within one year. The study tested combining two health measures from a standardized clinical assessment, the Resident Assessment Instrument-Home Care. Results identified patients scoring high in the Method for Assigning Priority Levels (MAPLe) algorithm and Changes in Health End Stage Disease Scale (CHESS) were at the greatest risk of placement or death and more than twice as likely to experience either outcome earlier than others. Authors concluded home care agencies can use the framework to identify home care patients who may require a more intensive care coordinator approach.

ADVERSE EVENTS/HOME CARE

Adverse events in patients in home healthcare: a retrospective record review using trigger tool methodology

Schildmeijer K, Unbeck M, Ekstedt M, et al. *BMJ Open*. 2018 (online, January):1-10.

Study to identify the origin, incidence and types of adverse events (AEs) in home care in Sweden. A sample of 600 patient records were reviewed to identify the presence of 38 predefined triggers indicating a potential AE, which were then individually reviewed to determine if the event qualified as an AE. Results showed that 356 AEs were identified for 226 patients. Most (255, 72%) were considered preventable; 98% resulted in temporary harm with 70% of these AEs requiring extra healthcare visits or prolonged care. The most common types of AEs were healthcare-associated infections (20%), falls (19%) and pressure ulcers (17%). Approximately 24% of AEs originated in other settings. Authors stated that findings are in line with studies from other jurisdictions and that reducing AEs must include interprofessional collaboration.

QUALITY IMPROVEMENT/HANDOVERS

Improving the written medical handover

Martin R, Huddart M, Garbett C, et al. *BMJ Open Qual*. 2018 (online, January):1-6.

Quality improvement project to improve the written handover to weekend on-call physicians at a large teaching hospital in the UK. Health records of 110 patients were evaluated for a weekend plan, escalation of care and a documented patient summary with specific criteria completed within the previous seven days. The project used plan-do-study-act cycles for testing over a three week period and the quality improvement tool progressed to a weekend handover form. Results showed the number of weekend plans documented increased from 15% to 84% and the provision of a patient summary within seven days increased from 26% to 94%. Feedback from physicians and nurses confirmed the form was useful for on-call intervention.

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OBSTETRICS/APGAR SCORES

Five and 10 minute Apgar scores and risks of cerebral palsy and epilepsy: population based cohort study in Sweden

Persson M, Razaz N, Tedroff K, et al. *BMJ*. 2018 (online, February):1-7.

Study to explore associations between Apgar scores at five and ten minutes and risks of cerebral palsy and epilepsy. The source population review included 1,213,470 infants born at term between 1999 and 2012 in Sweden. The study found increasing risks of epilepsy and especially cerebral palsy with even a slight decrease in Apgar scores at five or ten minutes. Obstetrical settings may only assign a ten minute Apgar with a low five minute score and authors concluded that findings justify assigning all newborns an Apgar score at one, five and ten minutes and continuing active neonatal resuscitation of infants who are mildly compromised at five minutes.

MEDICATION ERRORS/EMERGENCY DEPARTMENT

Task errors by emergency physicians are associated with interruptions, multitasking, fatigue and working memory capacity: a prospective, direct observational study

Westbrook J, Raban M, Walter S, et al. *BMJ Qual Saf*. 2018 (online ahead of print, January):1-9.

Study to assess interruptions and multitasking by emergency department physicians on prescribing errors. Direct observation of 36 physicians over 120 hours in a large teaching hospital in Australia was carried out to record all tasks, interruptions and instances of multitasking. Pharmacists assessed medication orders for legal/procedural errors (e.g. unapproved abbreviations) and clinical errors (e.g. wrong drug). Results showed physicians experienced 7.9 interruptions/hour overall and 9.4 interruptions/hour while prescribing. Out of 239 medication orders reviewed, 208 errors were identified (181 legal/procedural and 27 clinical). Most errors (94%) were insignificant/minor. Legal/procedural error rates increased when physicians multitasked during prescribing and clinical errors increased almost threefold when physicians were interrupted. Additionally, the clinical error rate was >15 times greater for physicians who reported lower than average sleep in the previous 24 hours compared to physicians who reported average sleep. Authors suggested targeted interventions should be considered to reduce interruptions in this setting.

PALLIATIVE CARE/COMMUNICATION

Identifying patients at risk of inhospital death or hospice transfer for early goals of care discussions in a US referral center: the HELPS model derived from retrospective data

Romero-Brufau S, Whitford D, Whitford K, et al. *BMJ Open*. 2018 (online, January):1-9.

Study at two large teaching hospitals in the US to develop a risk index to identify patients at risk of death or hospice placement who may benefit from goals of care discussions earlier in their hospitalization. Almost 93,000 hospital admissions were analyzed; the outcome measure was an aggregate of inhospital death or discharge to hospice. Ten of 29 predictor variables were eventually selected to encompass the Hospital End-of-Life Prognostic Score (HELPS). Results showed that while inhospital death or discharge to hospice was rare (incidences of 1.2% and 0.8%, respectively), HELPS was able to identify high risk patients. Patients with the highest 5% of scores had an 8% risk of the outcome measure. The HELPS scoring system showing the point values assigned to each of the 10 predictor variables is included.

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ELECTRONIC HEALTH RECORDS/CRITICAL TEST RESULTS

'Who's covering this patient?' Developing a first contact provider (FCP) designation in an electronic health record

Chandiramani A, Gervasio J, Johnson M, et al. *Jt Comm J Qual Patient Saf.* 2018 (February);44(2):107-113.

Study to determine the accurate identification of a patient's licensed independent practitioner (LIP) at a US academic hospital. The organization developed a mandatory Epic feature 'first contact provider' (FCP) to ensure accurate identification of the LIP for each admitted patient. Prior to this, the LIP needed to manually enter their paging contact information in a free-text field. At the end of the nine-month study period, results showed the weekly mean percentage of patients with one FCP documented at noon reached 98.9%. Best practice advisories notifying of no identified FCP dropped from 5,313/day to less than 50 per day. The number of inpatient critical lab values reported directly to the LIP increased from a pre-FCP baseline of 18% to 87.8%. Several screenshots of FCP fields are included.

INCIDENT REPORTING

Differences between serious and nonserious patient safety incidents in the largest hospital district in Finland

Jamsa J, Palojoki S, Lehtonen L, et al. *J Healthc Risk Manag.* 2018 (online ahead of print, January):1-9.

Study to determine if and in what ways serious and nonserious patient safety incidents differ from each other over a one year period. Results showed a total of 15,863 patient safety incidents; of these, 1% were serious. The differences between the two types of patient safety incidents were significant. Serious patient safety incidents involved laboratory, imaging or medical equipment. Nonserious patient safety incidents involved medication, infusion, blood transfusion or contrast medium. Physicians reported more serious patient safety incidents while the most common contributing factor for serious patient safety incidents related to working of procedures. Authors noted root cause analysis has potential usefulness for incident analysis though it has shortcomings such as the lack of measuring outcomes.

DETERIORATING PATIENT/RAPID RESPONSE SYSTEMS

A novel bedside-focused ward surveillance and response system

Sebat F, Vandergrift M, Childers S, et al. *Jt Comm J Qual Patient Saf.* 2018 (February);44(2):94-100.

Study to assess effectiveness of new organizational processes to restructure the existing rapid response system (RRS) and the impact of rapid response team (RRT) alerts, cardiac arrest and mortality rates over five years at a US community regional medical center. Expanded administrative oversight of the system led to enhanced nurse education regarding recognition of at-risk patients, prompt mobilization of the RRT, development of RRT treatment protocols, and more frequent and comprehensive data collection (intervention was a four-arm system: afferent, efferent, quality assurance, administrative). Results showed RRT activations increased from 10.2 to 48.8/1,000 discharges, hospital mortality decreased from 3.8% to 3.2%, and the observed to expected hospital mortality ratio decreased from 1.5 to 1.

"Redesigning and implementing a complete system of care that had expanded and engaged oversight that provided effective RRS improvement processes was key. We also believe that our success was derived from deployment of curricula that instilled a deeper understanding of patient deterioration and empowered clinicians to recognize deterioration early and promptly activate the RRT." (p. 99).

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Other Resources of Interest (all 🔓)

2018 Top 10 hospital C-suite watch list (January 2018). Emergency Care Research Institute (US) list of top new technologies and patient care developments for health system leaders' awareness (free with registration).

Addressing physician burnout at the systems level (January 2018). Canadian Medical Association Journal article with resources for addressing physician burnout focused on requiring changes at a system level.

Against the odds: successfully scaling innovation in the NHS (January 2018). Innovation Unit and the Health Foundation (UK) report calling for new approaches to scale healthcare innovations.

Back to basics: the Universal Protocol (January 2018). Association of periOperative Registered Nurses (US) article describing the elements of the Universal Protocol.

For surgeons, their leadership style can be as important as their scalpel skills (January 2018). Globe and Mail (CDN) article describing research on leadership behaviours on OR teams.

Preparing for Consent and Capacity Board hearings (January 2018). Borden Ladner Gervais LLP (CDN) article on practical considerations for preparing, attending and scheduling of a Consent and Capacity Board hearing.

Starting on opioids (January 2018). Health Quality Ontario report highlighting trends and strategies for family doctors, surgeons and dentists related to opioid prescribing.

Supporting second victims (January 2018). The Joint Commission (US) article outlining actions to consider and essential components to include when creating a second victim support program.

Teams are key to organizational progress: Q&A with Amy Edmondson (January 2018). Globoforce (IRE) interview discussing workplace culture, fostering psychological safety and the importance of social recognition.

HIROC Healthcare Risk Management

HIROC Monthly Risk Management Webinars – 2018 Upcoming Topics – Save the dates!	
Mar 8	Understanding HIROC's Non-Owned Automobile Coverage **REGISTER HERE!**
Mar 19	Risk Assessment Checklists: Experiences from the Rehabilitation Sector **REGISTER HERE!**
Apr 12	Learning from Closed Claims II **REGISTER HERE!**

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