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1. A Morbidity and Mortality Conference-Based Classification System for Adverse Events: Surgical Outcome Analysis: Part I.

Antonacci AC, Lam S, Lavarias V, Homel P, Eavey RD.

J Surg Res. 2008(June 15); 147(2):172–177.

This article describes the development of a method for the systematic classification and analysis of surgical adverse events at Beth Israel Medical Center, NYC. A database and classification scheme were created to document, categorize, and analyze adverse events in connection with the organization's existing morbidity and mortality (M&M) review process. The design of the system and results of its application to prospectively collected data from a 5-year period are discussed. The authors suggest that such a system may be used concomitantly with the M&M review process as a means to monitor safety and provide standardized measures of surgical performance. Two tables are included.

2. Accidents, Claiming, and Regional Subcultures: Are Medical Errors and Malpractice Lawsuits Related to Social Capital?

Williams J.

J Safety Res. 2008; 39(3):287–294.

This study explored the role of cultural and social factors as possible determinants of state-by-state variations in safety and rates of safety-related litigation. A state-by-state comparison of hospital and automobile safety and claims data showed a positive correlation between hospital safety and driver safety, as well as regional patterns in the incidence of malpractice and auto insurance claims. The author explores this result in the context of a social science framework, suggesting that regionally related socio-cultural traits may significantly influence safety and claiming behavior. Several figures and tables are included.

3. An Integrative Review of the Current Evidence on the Relationship between Hand Hygiene Interventions and the Incidence of Health Care–Associated Infections.

Backman C, Zoutman DE, Marck PB.

Am J Infect Control. 2008(Jun); 36(5):333–348.

This study assessed current evidence concerning the link between hand hygiene interventions and rates of health care–associated infections (HCAIs). A total of 35 studies, comprising 31 original articles and 4 reviews of research, were identified for inclusion in the review; of the 31 original studies, the majority were before-and-after studies with no control group. On the basis of their analysis, the authors conclude that there is a paucity of authoritative evidence regarding the relationship between hand hygiene interventions and rates of HCAIs. Noting that many of the existing studies are limited by methodological constraints, they discuss research approaches that could address some of these difficulties and offer recommendations for the design of future studies in this area. Multiple tables are included.

4. Applying Modern Error Theory to the Problem of Missed Injuries in Trauma.

Clarke DL, Gouveia J, Thomson SR, Muckart DJJ.

World J Surg. 2008(Jun); 32(6):1176–1182.

Missed injury, a type of diagnostic error, refers to any instance in which clinically significant trauma is present but goes undetected during initial evaluation of a patient. This study sought to determine the incidence, nature, causes, and clinical consequences of missed injuries among patients treated at a metropolitan surgical service in Pietermaritzburg, South Africa. Instances of missed injury prospectively documented over a 6-month period were classified according to Reason's taxonomy of error and subsequently subjected to root cause analysis. Results showed that missed injuries occurred infrequently, were associated with increased morbidity and mortality, and could be committed by staff at all levels of seniority. Multiple tables are included.

5. Association between Critical Care Physician Management and Patient Mortality in the Intensive Care Unit.

Levy MM, Rapoport J, Lemeshow S, Chalfin DB, Phillips G, Danis M.

Ann Intern Med. 2008(Jun 3); 148(11):801–809.

This study investigated the relationship between management of patients by critical care physicians and ICU patient mortality in US hospitals. Researchers used random-effects logistic regression to analyze 101,832 patient records from a national database representing 123 ICUs at 100 U. hospitals. Results showed that critical care management (CCM) was associated with increased likelihood of mortality among the study sample, even after adjustments for severity of illness and factors that might influence selection for CCM. The authors discuss possible explanations for this unanticipated result and note that further research is needed to shed light on these findings. One figure and multiple tables are included.

6. Behaviors That Undermine a Culture of Safety.

The Joint Commission.

Sentinel Event Alert. Issue 40, July 9, 2008.

Available at:

http://www.jointcommission.org/SentinelEvents/SentinelEventAlert/sea_40.htm

This Sentinel Event Alert addresses disruptive and unprofessional behavior among healthcare providers. These behaviors, which have been shown to occur frequently in the healthcare environment, impede teamwork and communication and may have a detrimental effect on patient safety. Individual and systemic factors associated with disruptive behaviors, Joint Commission requirements relating to this issue, and prevention and management strategies are discussed.

- 7. Cognitive Errors (Can They Be Prevented?).**
Hurst JW.
Am J Cardiol. 2008(May 15); 101(10):1513–1517.
In this essay, the author discusses how disciplined habits for thinking about and recording clinical information may help prevent cognitive errors in medicine. The medical record can be an important tool to support this process. An example is given to illustrate how the use of a medical record format that reinforces thoroughness and precision can both improve the diagnostic process and facilitate communication among providers. Several figures are included.
- 8. Design of a Graphical and Interactive Interface for Facilitating Access to Drug Contraindications, Cautions for Use, Interactions and Adverse Effects.**
Lamy J-B, Venot A, Bar-Hen A, Ouvrard P, Duclos C.
BMC Med Inform Decis Mak. 2008(Jun); 8:21.
Available at: <http://www.biomedcentral.com/1472-6947/8/21>
This article describes the development of “Mister VCM,” a graphical interface designed to facilitate providers’ access to pharmacological information. The interface uses an iconic language previously developed by the authors known as VCM (Visualisation des Connaissances Médicales, or Visualization of Medical Knowledge) to communicate information from a drug monograph database. The design of the interface and results of a preliminary usability evaluation are discussed. Four figures are included. [A previous article by Lamy et al. describing the development of VCM was listed in Current Awareness, Volume 12, Issue 5:2.]
- 9. Evidence for Innovation: Transforming Children’s Health through the Physical Environment. Executive Summary.**
Sadler BL, Joseph A.
Alexandria, VA: National Association of Children’s Hospitals and Related Institutions; May 2008.
Available at:
http://www.childrenshospitals.net/Content/ContentGroups/ManagementFinancing/FacilitiesDesign/evidenceforinnovation_execsum_small.pdf
A forthcoming report, produced by the National Association of Children’s Hospitals and Related Institutions in collaboration with the Center for Health Design, examines the effects of hospital design and physical environment on patient outcomes, patient and provider safety, and quality of care in the pediatric setting. This Executive Summary highlights key findings from the literature review that forms the basis of the full report, and offers an annotated list of evidence-based design improvement strategies. Also included are a summary of the business case for design improvement and a toolkit outlining steps for implementing an evidence-based design project.

- 10. Guide for Developing a Community-Based Patient Safety Advisory Council.**
Leonhardt KK, Bonin D, Pagel P.
Prepared by Aurora Health Care, Wisconsin. AHRQ Publication No. 08-0048. Rockville, MD: Agency for Healthcare Research and Quality; April 2008.
Available at: <http://www.ahrq.gov/qual/advisorycouncil/>
This document offers guidance and step-by-step instructions to assist healthcare organizations in creating patient safety advisory councils with a substantial proportion of patient or community members. The guide emerges from an initiative undertaken by Aurora Health Care; examples drawn from Aurora's experience are included throughout. Sample forms and materials used in the Aurora project are provided as appendices.
- 11. Implementation of Standard Order Sets for Patient-Controlled Analgesia.**
Weber LM, Ghafoor VL, Phelps P.
Am J Health-Syst Pharm. 2008(Jun 15); 65(12):1184–1191.
This case study describes the development and implementation of standard order sets to improve the safety of opioid-based patient-controlled analgesia (PCA) at the University of Minnesota Medical Center. Separate order sets were created for patients new to opioid treatment and for those already tolerant of it. Post-intervention assessment showed that the implementation of standard order sets sharply reduced the incidence of PCA-associated respiratory depression, with no apparent negative effect on pain control. One table is included. The two standard order sets described are included as appendices.
- 12. Improving Patient Safety in Intensive Care Units in Michigan.**
Pronovost PJ, Berenholtz SM, Goeschel C, et al.
J Crit Care. 2008(Jun); 23(2):207–221.
This article describes the design and implementation of a collaborative initiative to improve ICU patient safety in hospitals throughout the state of Michigan. Conducted in partnership by Johns Hopkins University researchers, the Michigan Health and Hospital Association, and participating Michigan hospitals, the project aimed to enhance teamwork and culture of safety and to increase adherence to evidence-based safety practices in the ICU setting. The structure of the program, results, and insights gained in the process are discussed. The authors note that this project is the first to undertake ICU patient safety improvement at a statewide level; its design and methods may provide a useful framework for future large-scale patient safety efforts. One figure, multiple tables, and an appendix are included.

- 13. Measuring Team Performance in Healthcare: Review of Research and Implications for Patient Safety.**
Jeffcott SA, Mackenzie CF.
J Crit Care. 2008(Jun); 23(2):188–196.
While the benefits of effective teamwork in medicine are well recognized, the development of meaningful measurements of team performance has proven difficult. This article reviews research concerning methods for evaluating healthcare team performance, including organizational “climate” surveys, direct observation, and videotape analysis. Advantages and disadvantages of each method, as well as practical implications for team training and assessment, are discussed.
- 14. Misinterpretation of Histopathological Results as an Important Risk Factor for Unneeded Surgery — Case Report of a “Near Miss” Event in a Pregnant Woman.**
Løes S, Tornes K.
Patient Saf Surg. 2008(Jun 5); 2:14.
Available at: <http://www.pssjournal.com/content/2/1/14>
A misdiagnosis based on histopathological analysis led to a treatment plan that would have subjected the patient to unnecessary surgery and chemotherapy—narrowly avoided when the problem fortuitously went away on its own. This case study describes the near-miss event and comments on its implications. Three figures are included.
- 15. Multi-Dose Drug Dispensing and Inappropriate Drug Use: A Nationwide Register-Based Study of Over 700,000 Elderly.**
Johnell K, Fastbom J.
Scan J Prim Health Care. 2008(Jun); 26(2):86–91.
Multi-dose drug dispensing is an automated system that packages medications for a given patient and dose occasion into a single dose unit bag. This study examined whether multi-drug dispensing was linked to potential inappropriate drug use (IDU) among elderly prescription drug users in Sweden. Researchers analyzed national prescription registry data representing more than 700,000 patients to identify inappropriate prescriptions and potentially dangerous combinations of drugs. Results suggested that multi-dose dispensing was associated with increased overall exposure to potential IDU as compared with standard dispensing; however, multi-dose dispensing appeared to reduce likelihood of exposure to potential adverse drug–drug interactions. Possible explanations for this result and implications are discussed. Four tables are included.
- 16. Physicians Behaving Badly.**
Stillman MD.
JAMA. 2008(Jul 2); 300(1):21–22.
In this editorial, the author describes several recent instances in which significant events or changes in the care of patients for whom he was the primary care provider were not communicated to him—a pattern that, he feels, is symptomatic of an unfortunate trend toward noncommunication among physicians. As well as being disrespectful of one’s colleagues, he argues, this behavior poses serious negative consequences for quality of care and the patient-provider relationship.

- 17. The Effect of Nurse Staffing Patterns on Medical Errors and Nurse Burnout.**
Garrett C.
AORN Journal. 2008(Jun); 87(6):1191–1204.
This article reviews the literature concerning the impact of nurse staffing variables on incidence of medical errors, nurses' wellbeing, and patient safety. A variety of evidence suggests that nurse understaffing can contribute to increased rates of nurse burnout and less favorable patient outcomes. An excerpt from an AORN position statement regarding nursing work hours is included.
- 18. The Impact of Computerized Physician Medication Order Entry in Hospitalized Patients—A Systematic Review.**
Eslami S, De Keizer NF, Abu-Hanna A.
Int J Med Inform. 2008(Jun); 77(6):365–376.
This article presents findings of a systematic review of the literature concerning the effects of computerized physician order entry (CPOE) in the hospital setting. Results showed that on average CPOE had the greatest favorable impact with respect to adherence to medication administration guidelines; some positive impact was noted with respect to appropriateness of alerts, costs and efficiency, and user satisfaction and usability. While the use of CPOE was associated with reductions in medication errors, the authors note that the studies examined were not statistically powered to measure its impact on adverse drug events. Two figures and two tables are included.
- 19. The Incidence and Nature of In-Hospital Adverse Events: A Systematic Review.**
De Vries EN, Ramrattan MA, Smorenburg SM, Gouma DJ, Boermeester MA.
Qual Saf Health Care. 2008(Jun); 17(3):216–223.
This study aimed to synthesize published evidence concerning the incidence, nature, and consequences of adverse events among hospital inpatients. Review of selected studies representing a total of 74,485 patient records showed that adverse events occurred in nearly 10% of hospital admissions; a considerable number of events were deemed preventable; and surgery- and medication-related problems accounted for the largest proportions of events. A list of evidence-based interventions targeting safety improvement in these areas is provided. One figure and multiple tables are included.

20. Three Successful Interventions in Health Care Workers That Improve Compliance with Hand Hygiene: Is Sustained Replication Possible?

Whitby M, McLaws M-L, Slater K, Tong E, Johnson B.

Am J Infect Control. 2008(Jun); 36(5):349–355.

This study assessed the efficacy and sustainability of three hand hygiene improvement strategies, each of which had proven effective in other study settings, when implemented at a university teaching hospital in Brisbane, Australia. Two of the programs studied were active interventions involving complex, multidimensional efforts (Washington and Geneva programs); the third was a simpler, passive intervention involving the replacement of liquid soap with an alcohol-based hand rub (AHR). Before-and-after comparisons within each program (the programs were not compared against each other) showed that the Washington program was associated with sustained improvement in hand hygiene compliance, while the Geneva program had qualified success. The provision of AHR absent any behavioral intervention was not found to be effective. One table and one figure are included.

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<http://www.npsf.org/rc/pubs/ca/>

Anita Spielman, Editor

aspelman@npsf.org