

Abstracts of recent articles of interest to the patient safety community selected by the NPSF Information Resources Center. Published twice a month by the National Patient Safety Foundation.

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### 1. Can Healthcare Go from Good to Great?

Driver TH, Wachter RM.

*J Hosp Med.* 2012(Jan); 7(1):60–65.

Abstract available at: <http://onlinelibrary.wiley.com/doi/10.1002/jhm.957/abstract>

In his book *Good to Great*, Jim Collins seeks to explain why certain corporations achieve exceptional success while similarly positioned others fail to attain this high level of performance. This article argues that there is a need for a similar assessment to be conducted in the health care industry and explores how the methods used in *Good to Great* could be applied to the analysis of health care organizational performance. Four tables are included.

### 2. Confirmation Bias: Why Psychiatrists Stick to Wrong Preliminary Diagnoses

Mendel R, Traut-Mattausch E, Jonas E, et al.

*Psychol Med.* 2011(Dec); 41(12):2651–2659.

Abstract available at: <http://www.ncbi.nlm.nih.gov/pubmed/21733217>

This study examined how diagnostic errors might arise from confirmation bias—the tendency to favor information that supports a previously established assumption and to discount contradictory information. In an experiment involving 75 psychiatrists and 75 medical students, the authors found that 13% of the former and 25% of the latter exhibited confirmation bias in performing a diagnostic reasoning task and that this tendency contributed to reduced diagnostic accuracy. The authors conclude that medical professionals, including psychiatrists, must remain aware of confirmation bias and its potential to affect diagnostic reasoning and should be encouraged to adopt strategies to counteract this tendency. Two tables and 2 figures are included.

### 3. Detecting Delayed Microbiology Results after Hospital Discharge: Improving Patient Safety through an Automated Medical Informatics Tool

Wilson JW, Marshall WF, Estes LL.

*Mayo Clin Proc.* 2011(Dec); 86(12):1181–1185.

Full text available at: <http://www.mayoclinicproceedings.org/article/S0025-6196%2811%2965255-5/fulltext>

This article describes the design and implementation of a tool to improve monitoring of patients with microbiology test results pending at the time of discharge from the hospital. Created at Mayo Clinic Rochester, the tool enables clinicians to identify patients with positive culture results that develop after discharge and to communicate with patients' primary care providers to ensure appropriate treatment. Two tables and 1 figure are included.

### 4. Diagnostic Errors in Primary Care: Lessons Learned

Ely JW, Kaldjian LC, D'Alessandro DM.

*J Am Board Fam Med.* 2012(Jan); 25(1):87–97.

Full text available at: <http://www.jabfm.org/content/25/1/87.full>

This study examined diagnostic errors in the primary care setting, seeking to shed light on the circumstances surrounding such errors. The authors conducted a survey of Iowa primary care physicians in which respondents were asked to recount an instance of diagnostic error and to reflect on what they learned as a result of the incident. Many of the cases described in the study involved failure to consider the possibility of more severe illness in patients presenting with common symptoms, suggesting that entertaining a broader range of diagnostic possibilities at the outset may serve as a helpful general approach to error prevention. Four tables and 2 appendices are included.

### 5. Effects of Two Commercial Electronic Prescribing Systems on Prescribing Error Rates in Hospital In-Patients: A Before and After Study

Westbrook JL, Reckmann M, Li L, et al.

*PLoS Med.* 2012(Jan); 9(1):e1001164.

Full text available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3269428/>

This study assessed the effectiveness of commercial electronic prescribing technology as a tool for preventing prescription-related errors in the hospital setting. In an analysis of two Australian hospitals that implemented commercially available e-prescribing systems, the authors found that both systems were associated with statistically significant reductions in rates of prescribing error. Six tables and 1 figure are included.

### 6. Hospital Incident Reporting Systems Do Not Capture Most Patient Harm

Washington, DC: US Department of Health and Human Services, Office of the Inspector General; January 2012. Publication OEI-06-09-00091.

Full text available at: <http://oig.hhs.gov/oei/reports/oei-06-09-00091.pdf>

This report presents findings of a study that examined the use of adverse event reporting systems in US hospitals. Working with data from a previous study that used medical record review to identify adverse events among hospitalized Medicare beneficiaries, researchers investigated whether these events were documented by reporting systems in the hospitals where they occurred. They found that only a small fraction of the events—about 14%—were recorded in hospital reporting systems. On the basis of these findings, the OIG recommends that the Agency for Healthcare Research and Quality

and the Centers for Medicare and Medicaid Services take steps to help improve the use of reporting systems, including providing hospital staff with standardized guidelines on reportable events as well as technical assistance in reporting.

### 7. Human Factors and Ergonomics in Patient Safety Curriculum

Williams L, Watts BV, McKnight S, Bagian JP.  
*Human Factors and Ergonomics in Manufacturing & Service Industries*. 2012(Jan–Feb); 22(1):64–71.  
Full text available at: <http://onlinelibrary.wiley.com/doi/10.1002/hfm.20282/pdf>

This article emphasizes the importance of teaching medical trainees the principles of human factors engineering and describes the Veterans Affairs health system's approach to incorporating these principles in a patient safety curriculum. Three figures are included.

### 8. Identification by Families of Pediatric Adverse Events and Near Misses Overlooked by Health Care Providers

Daniels JP, Hunc K, Cochrane D, et al.  
*CMAJ*. 2012(Jan 10); 184(1):29–34.  
Full text available at: <http://www.cmaj.ca/content/184/1/29.full>

This study examined a system for reporting of adverse events by patients' family members in a Canadian children's hospital, seeking to determine whether families could participate meaningfully in this process and whether the introduction of such a system would stimulate increased event reporting by health care providers. During a 1-year period, descriptions of problems in patient care were elicited from families of hospitalized patients via a discharge questionnaire. Although no change was found in the rate of event reporting among health care providers, the family reporting system provided valuable information: approximately half of the events reported by families represented actual patient safety concerns (the rest involved complaints not related to safety or did not provide enough information to be evaluated), and family reports identified many events that were not documented in the hospital's reporting system for care providers. Two tables and 1 figure are included.

### 9. Improving Hand Hygiene in a Paediatric Hospital: A Multimodal Quality Improvement Approach

Jamal A, O'Grady G, Harnett E, Dalton D, Andresen D.  
*BMJ Qual Saf*. 2012(Feb); 21(2):171–176.  
Abstract available at: <http://qualitysafety.bmj.com/content/21/2/171.abstract>

This article describes how a children's hospital in Sydney, Australia, developed and implemented a multifaceted initiative to improve staff hand hygiene performance. The authors report

sustained improvements in hand hygiene compliance as well as reductions in the rates of certain hospital-acquired infections following implementation of the initiative. Four figures are included.

### 10. Improving Patient Safety and Optimizing Nursing Teamwork Using Crew Resource Management Techniques

West P, Sculli G, Fore A, et al.  
*J Nurs Admin*. 2012(Jan); 42(1):15–20.  
Abstract available at: [http://journals.lww.com/jonajournal/Abstract/2012/01000/Improving\\_Patient\\_Safety\\_and\\_Optimizing\\_Nursing.6.aspx](http://journals.lww.com/jonajournal/Abstract/2012/01000/Improving_Patient_Safety_and_Optimizing_Nursing.6.aspx)

This article describes a program that used aviation-based safety techniques to help improve the safety of nursing care in the hospital setting. Developed and implemented in a Veterans Affairs hospital, the program involved application of the "sterile cockpit rule" as a means of reducing distractions during nursing assistants' performance of clinical tasks. Three figures are included.

### 11. Leading for Quality in Healthcare: Development and Validation of a Competency Model

Garman A, Scribner L.  
*J Healthc Manage*. 2011(Nov–Dec); 56(6):373–382.  
Abstract available at: <http://www.ncbi.nlm.nih.gov/pubmed/22201200>

This article describes the psychometric construction and validation of a model for evaluating professional competencies in health care quality. Developed by the National Association for Healthcare Quality, the resulting model consists of six domains: fostering positive change; communicating; organizational awareness; self-management; professionalism; and performance improvement. Four figures are included.

### 12. Making Sense of a Safety Reporting System's Data with BI Software

Long AL, Schroder J, Whitehurst JM, et al.  
*Patient Saf Qual Healthc*. 2012(Jan–Feb); 9(1).  
Full text available at: <http://www.psqh.com/januaryfebruary-2012/1102-making-sense-of-a-safety-reporting-systems-data-with-bi-software.html>

This article describes how a university health system has implemented business intelligence (BI) technology to facilitate management and analysis of patient safety data collected by the organization's reporting system. Three figures are included.

### 13. Medication Errors in Patients with Severe Chronic Kidney Disease and Acute Coronary Syndrome: The Impact of Computer-Assisted Decision Support

Milani RV, Oleck SA, Lavie CJ.

*Mayo Clin Proc.* 2011(Dec); 86(12):1161–1164.

Full text available at: <http://www.mayoclinicproceedings.org/article/S0025-6196%2811%2965252-X/fulltext>

This study investigated whether the use of computerized physician order entry (CPOE) could improve medication safety in the treatment of patients with chronic kidney disease admitted to the hospital with acute coronary syndrome—a group identified as being at particularly high risk for medication errors. In an analysis of 80 such patients admitted to a single hospital during a 2-year period, the authors compared outcomes for patients when the admitting physician used CPOE versus those cases where the physician used standard paper orders. They found that patients in the CPOE group were less likely to receive contraindicated medications, had lower frequency of in-hospital bleeding, and had shorter lengths of stay than did those in the non-CPOE group. Three tables are included.

### 14. New Federal Policy Initiatives to Boost Health Literacy Can Help the Nation Move beyond the Cycle of Costly ‘Crisis Care’

Koh HK, Berwick DM, Clancy CM, et al.

*Health Aff (Millwood).* 2012(Feb); 31(2):434–443.

Abstract available at: <http://content.healthaffairs.org/content/31/2/434.abstract>

This article emphasizes the need for continued attention to the problem of poor health literacy and highlights recently enacted federal legislation that is poised to help address these concerns, including the Affordable Care Act of 2010, the National Action Plan to Improve Health Literacy, and the Plain Writing Act of 2010. Three figures are included.

### 15. Reducing Health Care–Associated Infections (HAIs): Lessons Learned from a National Collaborative of Regional HAI Programs

Welsh CA, Flanagan ME, Hoke SC, Doebbeling BN, Herwaldt L, for the Agency for Healthcare Research and Quality Hospital-Acquired Infections Collaborative.

*Am J Infect Control.* 2012(Feb); 40(1):29–34.

Abstract available at: <http://www.ajicjournal.org/article/S0196-6553%2811%2900182-9/abstract>

This study explored the experiences of hospitals that participated in the Agency for Healthcare Research and Quality Hospital-Acquired Infections Collaborative, a multihospital initiative for the prevention of HAIs. Using data from case reports and from interviews with project personnel at 33 participating

hospitals, the authors examine factors that facilitated or hindered implementation of the initiative in different hospitals and identify 7 common elements important for successful implementation. Three tables and 1 figure are included.

### 16. Risks of Online Advertisement of Direct-to-Consumer Thermography for Breast Cancer Screening

Lovett KM, Liang BA.

*Nat Rev Cancer.* 2011(Dec); 11(12):827–828.

Full text available at: <http://www.nature.com/nrc/journal/v11/n12/pdf/nrc3170.pdf>

In this commentary, the authors examine the ramifications of online direct-to-consumer marketing of thermography (an infrared imaging technique) as an alternative method for breast cancer screening. Citing evidence that thermography should not be relied on as a substitute for mammography, the authors argue that such marketing poses patient safety and public health risks and call for regulatory action to address this concern.

### 17. A Road Map for Academic Departments to Promote Scholarship in Quality Improvement and Patient Safety

Neeman N, Sehgal NL.

*Acad Med.* 2012(Feb); 87(2):168–171.

Abstract available at: [http://journals.lww.com/academicmedicine/Abstract/2012/02000/Perspective\\_\\_\\_A\\_Road\\_Map\\_for\\_Academic\\_Departments.14.aspx](http://journals.lww.com/academicmedicine/Abstract/2012/02000/Perspective___A_Road_Map_for_Academic_Departments.14.aspx)

This editorial discusses challenges academic medical centers face in engaging faculty and fostering scholarly work in the areas of patient safety and quality improvement. The authors offer a framework designed to guide academic departments in this effort, drawing on experiences at their institution.

### 18. Spreading a Medication Administration Intervention Organizationwide in Six Hospitals

Kliger J, Singer S, Hoffman F, O’Neil E.

*Jt Comm J Qual Patient Saf.* 2012(Feb); 38(2):51–60.

Abstract available at: <http://www.ingentaconnect.com/content/jcqh/jcqs/2012/0000038/0000002/art00001>

This article describes the design and implementation of a collaborative initiative that aimed to improve the safety of medication administration at 6 San Francisco Bay Area hospitals. Building on a previous intervention, the project focused on sustaining changes achieved in the pilot phase and expanding the use of the intervention from the pilot units to all medical/surgical units within each hospital. The authors discuss how insights gained during this process might be applied to guide efforts to spread improvement initiatives in other organizations. Two tables and 2 figures are included.

**19. Synergy for Patient Safety and Quality: Academic and Service Partnerships to Promote Effective Nurse Education and Clinical Practice**

Debourgh GA.

*J Prof Nurs.* 2012(Jan–Feb); 28(1):48–61.

Abstract available at: <http://www.professionalnursing.org/article/S8755-7223%2811%2900078-0/abstract>

This article describes the Synergy Partnership, a program that aims to strengthen nursing education in patient safety and quality of care by aligning students' clinical experiences with competency requirements. One table and 6 figures are included.

**20. What Can We Learn from Patient Claims? A Retrospective Analysis of Incidence and Patterns of Adverse Events after Orthopaedic Procedures in Sweden**

Öhrn A, Elfström J, Tropp H, Rutberg H.

*Patient Saf Surg.* 2012(Jan 20); 6(2).

Full text available at: <http://www.pssjournal.com/content/6/1/2>

This study used insurance claims data to examine adverse events among patients undergoing orthopedic surgery at hospitals in Sweden. An analysis of more than 6,000 claims from 2 national databases found that hospital-acquired infections were the most common type of event and that spinal surgeries were the type of procedure most commonly associated with events. The authors discuss implications of these findings and comment on the use of claims data as a tool for learning about and preventing adverse events. Four tables are included.

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