

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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An archive of previous issues of *Current Awareness Literature Alert*
may be accessed at: <http://www.npsf.org/rc/pubs/ca/>

NPSF is pleased to initiate this new design for the look of *Current Awareness Literature Alert*. We assure our readers that the focus, purpose, and range of the publication remain unchanged.

Anita Spielman, *Editor*

1. A Problem Shared...? Teamwork, Autonomy and Error in Assisted Conception

Kerr A.

Soc Sci Med. 2009(Dec); 69(12):1741–1749.

This article uses sociological theory to examine how teamwork and notions of individual and professional autonomy influence the management of medical error in the fertility clinic setting. Drawing upon data from structured interviews and ethnographic observations conducted at UK assisted conception clinics, the author argues that team-based approaches may have both positive and negative effects on error management. For instance, the benefits of a team's sense of shared responsibility for ensuring safety may be offset by a decrease in individual team members' autonomy that introduces new opportunities for error. Understanding these complexities, the author concludes, is necessary in order to maximize the benefits of teamwork in this clinical setting.

2. Advancing Nursing Home Quality through Quality Improvement Itself

Werner RM, Konetzka RT.

Health Aff. 2010(Jan); 29(1):81–86.

This article argues that current efforts at improving nursing home quality of care face a number of challenges that limit their effectiveness. To address these limitations, the authors propose an alternative approach, which would reward the processes associated with quality improvement rather than focusing only on outcomes. The authors discuss potential models for such an approach and outline steps and requirements for its implementation.

3. Adverse Drug Events among Hospitalized Medicare Patients: Epidemiology and National Estimates from a New Approach to Surveillance

Classen DC, Jaser L, Budnitz DS.

Jt Comm J Qual Patient Saf. 2010(Jan); 36(1):12–21.

This article describes the design and application of the Medicare Patient Safety Monitoring System (MPSMS), a national surveillance network designed to identify and collect data on adverse events in the Medicare inpatient population. On the basis of evidence that a small number of medications contribute disproportionately to the occurrence of adverse drug events (ADEs) in this population, the MPSMS focuses on adverse events associated with six known high-risk drugs. Using MPSMS data on 25,145 hospital visits from a one-year period, the authors estimated that 888,000 ADEs occurred annually as a result of use of these six medications. Implications of these findings and the potential further uses of this type of event monitoring system are discussed. Multiple tables are included.

4. Adverse Health Events in Minnesota: Sixth Annual Public Report

St. Paul, MN: Minnesota Department of Health; January 2010.

Available at: <http://www.health.state.mn.us/patientsafety/publications/2010ahe.pdf>

This report presents data and analysis on adverse events reported by Minnesota healthcare facilities during the past year. Statewide and facility-specific data are included along with discussion of key findings and trends.

5. Applying Market-Based Reforms to Long-Term Care

Konetzka RT, Werner RM.

Health Aff. 2010(Jan); 29(1):74–80.

This article identifies three overarching goals for quality improvement in the long-term care setting and discusses how market-based approaches could be harnessed to accelerate progress toward these goals, which include improving patients' quality of life, reducing fragmentation in the care delivery and payment systems, and increasing the use of home- and community-based care. The authors argue that, while strategies such as public reporting and pay for performance have been applied in the long-term care setting to some degree, the scope of such initiatives should be expanded to encompass the broader goals of improving patients' healthcare experiences and quality of life.

6. Can Aviation-Based Team Training Elicit Sustainable Behavioral Change?

Sax HC, Browne P, Mayewski RJ, et al.

Arch Surg. 2009(Dec); 144(12):1133–1137.

This study assessed the impact of a crew resource management (CRM) training program on safety-related behaviors among staff at a university hospital. The authors examined changes over time in the frequency of two safety practices (use of a preoperative checklist and error reporting) and in staff's perceived "safety empowerment," i.e., confidence in their ability to take various steps to ensure patients' safety. They found that performance of both practices as well as self-reported sense of empowerment increased following participation in the program, suggesting that such interventions can cause positive behavioral and attitudinal changes. However, they note that the long-term impact of the program could not be assessed in the present study, and that sustained improvements to organizational safety culture will likely require continued efforts and vigilance. Three figures and one table are included.

7. Chlorhexidine–Alcohol versus Povidone–Iodine for Surgical-Site Antisepsis

Darouiche RO, Wall MJ Jr., Itani KMF, et al.

N Engl J Med. 2010(Jan 7); 362(1):18–26.

This study compared the efficacy of two different antimicrobial preparations in preventing surgical-site infections in patients undergoing clean-contaminated surgery at six US university

hospitals. A total of 849 patients were randomized to receive preoperative skin disinfection using either chlorhexidine–alcohol or povidone–iodine and were monitored postoperatively for the development of surgical-site infection. Results showed that postsurgical infections occurred significantly less frequently in the chlorhexidine–alcohol group than in the povidone–iodine group, suggesting that chlorhexidine–alcohol provides more effective infection prophylaxis in this type of surgical procedure. Four tables and two figures are included.

8. Commentary: Urgently Needed: A Safe Place for Self-Assessment on the Path to Maintaining Competence and Improving Performance

Bellande BJ, Winicur ZM, Cox KM.
Acad Med. 2010(Jan); 85(1):16–18.

This commentary argues that reform of the continuing medical education (CME) system for physicians should be considered an urgent priority and outlines recommendations for change. These recommendations focus on the need for a shift toward a system of externally validated self-assessment as well as the development of better tools for data analysis and performance measurement.

9. Development of a Measure of Patient Safety Event Learning Responses

Ginsburg LR, Chuang Y-T, Norton PG, et al.
Health Serv Res. 2009(Dec); 44(6):2123–2147.

This article describes the development of a tool for assessing organizational learning and change in the aftermath of a safety-compromising error or adverse event. The authors describe in detail the design and structure of the measurement instrument, which incorporates evidence from published literature, survey data, focus groups, and expert review, and discuss its potential applications to patient safety and quality improvement efforts. Four tables are included.

10. Do Calculation Errors by Nurses Cause Medication Errors in Clinical Practice? A Literature Review

Wright K.
Nurse Educ Today. 2010(Jan); 30(1):85–97.

Apropos of recent concerns about nurses' mathematical skills and the potential for medication-related mishaps due to dose-calculation errors, this study sought to synthesize evidence from the published literature concerning the relationship between nurses' calculation errors and medication errors. In an analysis of 33 published studies, the author found that only a few studies addressed calculation errors explicitly, and that overall the presence or absence of a connection between nurses' miscalculations and the incidence of medication errors could not be determined from the available data. While acknowledging that further research in this area may be warranted, the author also suggests that concerns

about the potential safety risks associated with nurses' calculation errors may have been overstated. One figure and multiple tables are included.

11. Hospital Computing and the Costs and Quality of Care: A National Study

Himmelstein DU, Wright A, Woolhandler S.
Am J Med. 2010(Jan); 123(1):40–46.

This study sought to determine the influence of health information technology use on the costs and quality of care in a large group of hospitals across the US. The authors analyzed matched data on 4,000 hospitals over a 5-year period to assess potential correlations between health IT use and costs and quality of care. They found that hospitals that used more computer applications performed slightly better on certain quality of care measures than did others, but that greater computerization did not appear to be associated with reductions in administrative or overall costs. Four tables are included.

12. Hospitalized Patients' Understanding of Their Plan of Care

O'Leary KJ, Kulkarni N, Landler MP, et al.
Mayo Clin Proc. 2010(Jan); 85(1):47–52.

This study investigated hospital patients' comprehension of their plans of care and the factors that might influence such understanding. The authors conducted interviews with 241 inpatients and their physicians at an academic hospital to assess agreement with respect to six specific elements of the plan of care, including primary diagnosis, scheduled tests and procedures, and expected duration of stay. They found that patients' understanding of the care plan differed from physicians' in a substantial number of cases overall and for each of the six elements of treatment examined. Furthermore, only 32% of patients were able to identify their physicians by name, although 60% could correctly name their nurses. Implications of these findings and the need for efforts to improve patient–physician communication in this area are discussed. Three tables are included.

13. Leadership in Healthcare Organizations: A Guide to Joint Commission Leadership Standards

Schyve PM.
San Diego, CA: The Governance Institute; Winter 2009.
Available at: <http://www.governanceinstitute.com>

The emergence of systems-focused models for healthcare organizational performance has entailed changes in thinking about the definition of hospital governance and; the role and responsibilities of hospital leadership. This white paper provides a guide to the Joint Commission's leadership standards that focuses on explaining how the standards address these definitions and objectives.

14. Medical Trainees' Formal and Informal Incident Reporting across a Five-Hospital Academic Medical Center

Logio LS, Ramanujam R.

Jt Comm J Qual Patient Saf. 2010(Jan); 36(1):36–42.

This study examined attitudes and practices concerning incident reporting among postgraduate trainees at a large academic medical institution. The authors surveyed 443 residents and fellows regarding their awareness and use of the organization's formal reporting system as well as their use of less formal types of reporting, such as discussion of an incident with colleagues. They found that relatively few respondents—only 37.7% overall—had formally reported an incident, and that many lacked basic knowledge about how to use the reporting system. In contrast, more than 70% of respondents indicated they had discussed incidents informally with peers or faculty members. Implications of these findings and possible strategies to improve error reporting among trainees are discussed. Two tables and one figure are included.

15. Medication Reconciliation at an Academic Medical Center: Implementation of a Comprehensive Program from Admission to Discharge

Murphy EM, Oxencis CJ, Klauck JA, Meyer DA, Zimmerman JM.

Am J Health-Syst Pharm. 2009(Dec 1); 66(23):2126–2131.

This article describes the design, implementation, and impact of an initiative to improve medication safety at an academic hospital. The intervention used pharmacist-conducted medication histories and standardized processes for documentation and review of patients' medications to reduce errors in medication reconciliation on admission and at discharge. Two figures are included.

16. Medico-Legal Claims against English Radiologists: 1995–2006

Halpin SFS.

Br J Radiol. 2009(Dec); 82(984):982–988.

This article presents data from an analysis of 440 claims filed against radiologists in England during a 10-year period and discusses these findings in the context of current thinking about the causes and prevention of radiological errors, the definitions of error versus medical negligence, and the changing climate of medical malpractice law. Two tables are included.

17. Prescribing Errors in a Pediatric Clinic

Condren M, Studebaker IJ, John BM.

Clin Pediatr. 2010(Jan); 49(1):49–53.

This study sought to describe the frequency and nature of prescribing errors in the pediatric acute care clinic of an academic medical center. In an analysis of 1,802 new prescriptions entered via the clinic's electronic medical record system, the authors found that nearly 10% of prescriptions had one or more errors. Omissions of information or instructions and incorrect dosing

were the most frequent error types. The possible sources of these errors and steps the clinic has taken to address them are discussed. One table and two figures are included.

18. Preventing Surgical-Site Infections in Nasal Carriers of *Staphylococcus aureus*

Bode LGM, Kluytmans JAJW, Wertheim HFL, et al.

N Engl J Med. 2010(Jan 7); 362(1):9–17.

This study investigated whether rapid identification and treatment of patients carrying *Staphylococcus aureus* could reduce the incidence of subsequent hospital-acquired *S. aureus* infection among patients at five hospitals in the Netherlands. Over a 20-month period, surgery and internal medicine patients entering the hospitals were screened on admission for *S. aureus* colonization. Patients carrying *S. aureus* were randomized to receive decolonization treatment either with mupirocin ointment and chlorhexidine soap or with placebos. Results showed that patients who received antimicrobial treatment were significantly less likely to develop *S. aureus* infection than were those in the control group; the intervention was also associated with a reduction in average length of stay. Further details of these findings and implications for practice and for further research are discussed. Two tables and three figures are included.

19. Researchers Hope Measuring Performance Will Improve Stroke Care and Prevention

Mitka M.

JAMA. 2009(Jan 6); 303(1):17–18.

This article describes several ongoing national initiatives designed to help hospitals monitor and improve the quality of care provided to stroke patients. A recent study that evaluated the impact of one such initiative found that participating hospitals improved performance on a number of measures of quality of stroke care. However, performance on certain other measures, such as administration of recombinant tissue plasminogen activator (rt-pA), remained low despite the intervention. In addition, the authors quote experts emphasizing the critical need for efforts to increase public awareness about stroke symptoms and treatment.

20. Using Patient Safety Morbidity and Mortality Conferences to Promote Transparency and a Culture of Safety

Szekendi MK, Barnard C, Creamer J, Noskin GA.

Jt Comm J Qual Patient Saf. 2010(Jan); 36(1):3–9.

This article describes the development and implementation of patient safety-focused monthly morbidity and mortality conferences at an academic medical center in Chicago, Ill. The authors describe the structure and content of the conferences and discuss how such a program can help to encourage providers' engagement in patient safety efforts and improve organizational safety culture. Four tables and one figure are included.