

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. Adverse Health Events in Minnesota: Eighth Annual Public Report

St. Paul, MN: Minnesota Department of Health; January 2012.
Full text available at: <http://www.health.state.mn.us/patientsafety/ae/2012ahereport.pdf>

This annual publication provides data on adverse events in patient care reported by Minnesota health care facilities during the previous year. The report includes analysis of state-wide trends as well as facility-level information. While the total number of reported events was slightly higher in 2011 than in 2010, significant progress was indicated by reductions in patient falls and wrong-site procedures, as well as an overall reduction in events involving patient harm.

2. Association between Implementation of a Medical Team Training Program and Surgical Morbidity

Young-Xu Y, Neily J, Mills PD, et al.
Arch Surg. 2011(Dec); 146(12):1368–1373.
Abstract available at: <http://archsurg.ama-assn.org/cgi/content/abstract/146/12/1368>

This study investigated whether the use of a medical team training program implemented at Veterans Health Administration facilities was associated with improved clinical outcomes for surgical patients. In an analysis of data on more than 100,000 surgical procedures performed at 74 VHA facilities, the authors found that risk-adjusted surgical morbidity decreased by a significantly greater degree among facilities that implemented the training than among those that had not yet implemented the program. Three tables are included.

3. Changing Practice to Improve Patient Safety and Quality of Care in Perinatal Medicine

Kaplan HC, Ballard J.
Am J Perinatol. 2012(Jan); 29(1):35–42.
Abstract available at: <https://www.thieme-connect.com/ejournals/abstract/ajp/doi/10.1055/s-0031-1285826>

This article provides an overview of approaches for improving the quality and safety of perinatal care, drawing on an extensive review of literature. Interventions discussed include strategies targeting individual behavior as well as those that promote change at the level of groups and teams, organizations, or larger systems.

4. Chemotherapeutic Errors in Hospitalised Cancer Patients: Attributable Damage and Extra Costs

Ranchon F, Salles G, Späth H-M, et al.
BMC Cancer. 2011(Nov 8); 11(478).
Full text available at: <http://www.biomedcentral.com/1471-2407/11/478>

This study sought to assess the frequency, clinical consequences, and costs of errors associated with chemotherapy treatment in patients at a French university hospital. In a 1-year prospective analysis, the authors found that approximately 5% of chemotherapy prescriptions contained errors, but the vast majority of such errors were discovered and corrected before they reached the patient. Although none of the errors identified in this study resulted in patient harm, the authors caution that chemotherapy errors have the potential to cause serious damage and to incur substantial costs, emphasizing the need for effective approaches to error prevention. Six tables and 1 figure are included.

5. Diabetes Medication Patient Safety Incident Reports to the National Reporting and Learning Service: The Care Home Setting

Milligan FJ, Krentz AJ, Sinclair AJ.
Diabet Med. 2011(Dec); 28(12):1537–1540.
Abstract available at: <http://onlinelibrary.wiley.com/doi/10.1111/j.1464-5491.2011.03421.x/abstract>

This study sought to describe the characteristics of adverse incidents associated with the use of diabetes medications among patients in hospice or nursing home care in the UK. In an analysis of incidents reported to the National Reporting and Learning Service during a 5-year period, the authors found that the majority of such incidents involved insulin therapy, while a smaller number involved orally administered glucose-control medications. The authors conclude that errors associated with diabetes medications pose a significant risk in this patient population and that further research examining this issue is warranted. One table is included.

6. Getting Moving on Patient Safety—Harnessing Electronic Data for Safer Care

Jha AK, Classen DC.
N Engl J Med. 2011(Nov 10); 365(19):1756–1758.
Extract available at: <http://www.nejm.org/doi/full/10.1056/NEJMp1109398>

This editorial argues that an inability to measure adverse events in patient care is the foremost barrier to progress in patient safety and that electronic health records (EHR) technology could provide the means for systematic measurement

that is currently lacking. To accomplish this goal, the authors recommend inclusion of event measurement and reporting capacities as part of “meaningful use” requirements for the adoption of EHRs.

7. Hospital Quality and Patient Safety Competencies: Development, Description, and Recommendations for Use

O’Leary KJ, Afsar-manesh N, Budnitz T, Dunn AS, Myers JS. *J Hosp Med.* 2011(Nov–Dec); 6(9):530–536.

Abstract available at: <http://onlinelibrary.wiley.com/doi/10.1002/jhm.937/abstract>

This article reports on the Society of Hospital Medicine’s development of a set of patient safety and quality-focused professional competencies for hospitalists. The authors describe the design of the competencies and offer recommendations for how they might be incorporated in medical education and professional development curricula. One table and 1 figure are included.

8. Human Reliability Assessment of a Critical Nursing Task in a Radiotherapy Treatment Process

Chadwick L, Fallon EF.

Appl Ergon. 2012(Jan); 43(1):89–97.

Full text available at: <http://www.sciencedirect.com/science/article/pii/S0003687011000469>

This study examined whether human reliability assessment, a prospective risk assessment method developed in the nuclear power industry, could be used successfully in the health care context. The method was applied in an analysis of nurses’ documentation of abnormal blood test results in a radiotherapy department. The authors describe safety improvements accomplished as a result of this analysis and discuss potential further applications of this method in other health care settings. Four tables, 4 figures, and 2 appendices are included.

9. Increasing the Use of ‘Smart’ Pump Drug Libraries by Nurses: A Continuous Quality Improvement Project

Harding AD.

Am J Nurs. 2012(Jan); 112(1):26–35.

Full text available at: http://journals.lww.com/ajnonline/Fulltext/2012/01000/Increasing_the_Use_of__Smart__Pump_Drug_Libraries.18.aspx

This article describes how a community hospital sought to improve medication safety related to the use of “smart” IV infusion pumps. After finding that nurses routinely used the pumps in a manual-entry mode that bypassed the machines’ built-in safety features, the hospital developed an initiative to encourage more effective use of the pumps. Results showed

that nurses’ use of the pumps’ electronic drug libraries nearly doubled following implementation of the intervention. Three figures are included.

10. Inpatient Insulin Orders: Are Patients Getting What Is Prescribed?

Deal EN, Liu A, Wise LL, Honick KA, Tobin GS.

J Hosp Med. 2011(Nov–Dec); 6(9):526–529.

Abstract available at: <http://onlinelibrary.wiley.com/doi/10.1002/jhm.938/abstract>

Insulin is among the drugs most commonly involved in medication errors. This brief report summarizes findings of a study that examined insulin administration errors in the general medical and surgical wards of an academic medical center, and discusses implications for further research and improvement efforts. Two tables are included.

11. Measuring the Cost of Hospital Adverse Patient Safety Events

Carey K, Stefos T.

Health Econ. 2011(Dec); 20(12):1417–1430.

Abstract available at: <http://onlinelibrary.wiley.com/doi/10.1002/hec.1680/abstract>

This study sought to estimate the costs associated with adverse incidents in the care of hospital patients, based on an analysis of patients treated at Veterans Affairs (VA) hospitals during a 1-year period. The authors identified adverse incidents using a subset of the Agency for Healthcare Research and Quality patient safety indicators and performed regression analyses to calculate the estimated costs attributable to these events. Results suggested that costs of these events in VA patients could be considerably higher than has been found in previous studies. Four tables are included.

12. Medication Administration Errors for Older People in Long-Term Residential Care

Szczepura A, Wild D, Nelson S.

BMC Geriatr. 2011(Dec 7); 11(82).

Full text available at: <http://www.biomedcentral.com/1471-2318/11/82>

This study sought to describe the incidence of medication administration errors in the long-term care setting. The authors examined medication administration records from 13 UK long-term care facilities that had implemented a bar-code medication administration (BCMA) system, using data captured by the system as the basis of their analysis. Results showed that such errors occurred frequently and had the potential to cause significant damage: during the 3-month observation period, 90% of residents at the study facilities

were exposed to some type of error, and more than half were exposed to a “serious” error. Mistakes in the timing of medication administration were the most common type of error and accounted for 45% of the errors observed. The authors discuss implications of these findings and the role of BCMA technology in improving medication administration safety. Five tables and 1 figure are included.

13. Medication Safety in Neonates

Dabliz R, Levine S.

Am J Perinatol. 2012(Jan); 29(1):49–56.

Abstract available at: <https://www.thieme-connect.com/ejournals/abstract/ajp/doi/10.1055/s-0031-1285831>

This article discusses medication safety issues specific to the neonatal intensive care setting and offers strategies for preventing medication errors in the care of these highly vulnerable patients, using Institute for Safe Medication Practice guidelines as a framework. Two tables are included.

14. Nurses’ Clinical Reasoning: Processes and Practices of Medication Safety

Dickson GL, Flynn L.

Qual Health Res. 2012(Jan); 22(1):3–16.

Abstract available at: <http://qhr.sagepub.com/content/22/1/3.abstract>

This study used qualitative analysis to explore nurses’ role in ensuring safe medication administration in the hospital setting. Working with data from in-depth interviews conducted with 50 medical-surgical nurses from hospitals in the mid-Atlantic US, the authors use grounded theory methods to examine the mental processes and actions nurses employ to avert medication errors and protect patients from harm. One table is included.

15. Preventing Wrong Site, Procedure, and Patient Events Using a Common Cause Analysis

Mallett R, Conroy M, Saslaw LZ, Moffatt-Bruce S.

Am J Med Qual. 2012(Jan–Feb); 27(1):21–29.

Abstract available at: <http://ajm.sagepub.com/content/27/1/21.abstract>

This article describes an academic medical center’s approach to understanding and reducing the occurrence of incorrect surgeries through the use of common cause analysis. The authors illustrate application of this technique in an examination of 8 sentinel events and discuss how results of this

analysis have contributed to efforts to improve safety. Four tables are included.

16. Quality Improvement in Medical Education: Current State and Future Directions

Wong BM, Levinson W, Shojania KG.

Med Educ. 2012(Jan); 46(1):107–119.

Full text available at: <http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2923.2011.04154.x/pdf>

This review article describes the history and current state of efforts to incorporate patient safety and quality improvement in medical education curricula and offers recommendations for advancing the progress of such efforts. The authors also examine unintended consequences of integrating quality and safety education into existing programs and discuss how these challenges might be addressed. Five tables are included.

17. Research in Ambulatory Patient Safety 2000–2010: A 10-Year Review

Lorincz CY, Drazen E, Sokol PE, et al.

Chicago, IL: American Medical Association; 2011.

Full text available at: <http://www.ama-assn.org/resources/doc/ethics/research-ambulatory-patient-safety.pdf>

This publication summarizes research from the past decade that has examined patient safety in outpatient care. Based on a review of more than 100 published studies, the report covers a wide range of safety topics and treatment settings.

18. Unusual Spine Anatomy Contributing to Wrong Level Spine Surgery: A Case Report and Recommendations for Decreasing the Risk of Preventable ‘Never Events’

Lindley EM, Botolin S, Burger EL, Patel VV.

Patient Saf Surg. 2011(Dec 14); 5(33).

Full text available at: <http://www.pssjournal.com/content/5/1/33>

This article presents a case report of an instance of wrong-site spine surgery in which confusion about the numbering of vertebrae in a patient with atypical spine anatomy led to misidentification of the intended surgical site. The authors discuss strategies for preventing such incidents and suggest several approaches that could improve accuracy in cases such as the one described. Four figures are included.

19. Vaccine Shortages and Suspect Online Pharmacy Sellers

Liang BA, Mackey TK.

Vaccine. 2012(Jan); 30(2):105–108.

Full text available at: <http://www.sciencedirect.com/science/article/pii/S0264410X1101783X>

Shortages in the availability of a number of vaccines have created a market for sales of these drugs on the Internet. In this study, the authors evaluated online pharmacies selling vaccines currently subject to shortages, and found evidence suggesting that many of these pharmacies were of questionable legitimacy. The authors urge the medical and public health communities to be aware of the patient safety risks associated with online vaccine sales and to support educational and policy efforts to address this issue. Two tables and 1 figure are included.

20. What “Patient-Centered Care” Requires in Serious Cultural Conflict

Fiester A.

Acad Med. 2012(Jan); 87(1):20–24.

Full text available at: http://journals.lww.com/academicmedicine/Fulltext/2012/01000/What__Patient_Centered_Care__Requires_in_Serious.12.aspx

This commentary explores the ethical implications of the mandate to provide patient-centered care, looking specifically at the quandaries that may arise when accommodating a patient’s religious or cultural preferences conflicts with a clinician’s own values or with standard medical practice. The author suggests that these conflicts may be resolved by focusing on universal human values—such as personal autonomy and physical privacy—as a point of commonality between patients and clinicians.

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