

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.

IN THIS ISSUE

1. Anticoagulation-Associated Adverse Drug Events
2. Chemotherapy in Home Care: One Team's Performance Improvement Journey toward Reducing Medication Errors
3. A 'Communication and Patient Safety' Training Programme for All Healthcare Staff: Can It Make a Difference?
4. Designing Education to Improve Care
5. Errors in the Administration of Intravenous Medications in Hospital and the Role of Correct Procedures and Nurse Experience
6. Exploring Situational Awareness in Diagnostic Errors in Primary Care
7. How Dangerous Is a Day in Hospital? A Model of Adverse Events and Length of Stay for Medical Inpatients
8. Improved Quality and Outcomes through Congruent Leadership, Teamwork and Life Choices
9. Improving Quality of Patient Care by Improving Daily Practice in Radiation Oncology
10. Interdisciplinary Team Training Identifies Discrepancies in Institutional Policies and Practices
11. It's Not All about Me: Motivating Hand Hygiene among Health Care Professionals by Focusing on Patients
12. Patient Safety in Primary Allied Health Care: What Can We Learn from Incidents in a Dutch Exploratory Cohort Study?
13. Patient Safety Instruction in US Health Professions Education
14. Patient Safety Problems Associated with Healthcare Information Technology: An Analysis of Adverse Events Reported to the US Food and Drug Administration
15. Patients' and Healthcare Workers' Perceptions of a Patient Safety Advisory
16. Patients Count on It: An Initiative to Reduce Incorrect Counts and Prevent Retained Surgical Items
17. Prevalence of Adverse Events in the Hospitals of Five Latin American Countries: Results of the 'Iberoamerican Study of Adverse Events' (IBEAS)
18. Safety of Telephone Triage in Out-of-Hours Care: A Systematic Review
19. Seek and Ye Shall Find: Consumer Search for Objective Health Care Cost and Quality Information
20. A Successful, Voluntary, Multicomponent Statewide Effort to Reduce Health Care-Associated Infections

Editor: Anita Spielman, aspelman@npsf.org

Copyright 1998–2012 National Patient Safety Foundation®
268 Summer Street, Sixth Floor, Boston, Massachusetts 02210
All rights reserved.

1. Anticoagulation-Associated Adverse Drug Events

Piazza G, Nguyen TN, Cios D, et al.

Am J Med. 2011(Dec); 124(12):1136–1142.

Full text available at: <http://www.amjmed.com/article/S0002-9343%2811%2900539-0/fulltext>

This study sought to describe the characteristics of adverse drug events (ADEs) involving anticoagulant medications at an acute-care tertiary hospital. In a retrospective analysis of incidents reported to the hospital's voluntary incident reporting system during a 5-year period, the authors found that a large proportion of anticoagulant-associated ADEs were attributable to medication errors, the most common of which were transcription errors. Results also showed increased rates of 30-day mortality and high costs of care among patients who experienced such events, reinforcing evidence of the negative impact of these events and the need for corrective measures to address this issue. Seven tables are included.

2. Chemotherapy in Home Care: One Team's Performance Improvement Journey toward Reducing Medication Errors

Ewen BM, Combs R, Popelas C, Faraone GM.

Home Healthc Nurse. 2012(Jan); 30(1):28–37.

Abstract available at: http://journals.lww.com/homehealthcarenurseonline/Abstract/2012/01000/Chemotherapy_in_Home_Care__One_Team_s_Performance.9.aspx

This article describes how a home health agency took steps to improve the safety of chemotherapy administration in patients' homes, following an incident in which a patient received an accidental overdose as a result of error. Four figures are included.

3. A 'Communication and Patient Safety' Training Programme for All Healthcare Staff: Can It Make a Difference?

Lee P, Allen K, Daly M.

BMJ Qual Saf. 2012(Jan); 21(1):84–88.

Abstract available at: <http://qualitysafety.bmj.com/content/21/1/84.abstract>

This article describes the development and implementation of an interprofessional training program that seeks to enhance patient safety by improving communication and teamwork among health care providers. Developed by the government health agency in Queensland, Australia, the program has been implemented at 5 hospitals in southern Queensland. The authors note that the program is distinctive in its inclusion of staff at all levels of an organization and of both clinical and

nonclinical personnel, in contrast to the team- or specialty-specific focus of many existing programs. Five tables are included.

4. Designing Education to Improve Care

Armstrong G, Headrick L, Madigosky W, Ogrinc G.

Jt Comm J Qual Patient Saf. 2012(Jan); 38(1):5–14.

Abstract available at: <http://www.ingentaconnect.com/content/jcaho/jcjq/2012/0000038/0000001/art00002>

This article discusses the rationale for incorporating health care improvement as a component of health professions education and articulates a set of principles designed to guide the development of such educational programs. Two tables and 1 figure are included.

5. Errors in the Administration of Intravenous Medications in Hospital and the Role of Correct Procedures and Nurse Experience

Westbrook JI, Rob MI, Woods A, Parry D.

BMJ Qual Saf. 2011(Dec); 20(12):1027–1034.

Full text available at: <http://qualitysafety.bmj.com/content/20/12/1027.full>

This study sought to provide insight into errors in the administration of intravenous medications in the hospital setting. Using data from observations of nurses preparing and administering IV medications at two Australian teaching hospitals, the researchers analyze the frequency, characteristics, and causes of such errors, focusing specifically on the role of nurses' clinical experience and adherence to safety procedures as potential correlates of error. Seven tables and 1 figure are included.

6. Exploring Situational Awareness in Diagnostic Errors in Primary Care

Singh H, Giardina TD, Petersen LA, et al.

BMJ Qual Saf. 2012(Jan); 21(1):30–38.

Abstract available at: <http://qualitysafety.bmj.com/content/21/1/30.abstract>

This study used the concept of situational awareness, a theoretical framework from human factors research, to provide insight into diagnostic errors in the primary care setting. Using data from electronic health records and from interviews with physicians at 2 large US health systems, the authors evaluated 254 patients treated for lung or colorectal cancers. The situational awareness model is applied to these cases to illustrate how aspects of information management and the cognitive processes involved in diagnostic reasoning may contribute to or protect against error. Three tables and 1 figure are included.

7. How Dangerous Is a Day in Hospital? A Model of Adverse Events and Length of Stay for Medical Inpatients

Hauck K, Zhao X.

Med Care. 2011(Dec); 49(12):1068–1075.

Full text available at: http://journals.lww.com/lww-medicalcare/Fulltext/2011/12000/How_Dangerous_is_a_Day_in_Hospital___A_Model_of.5.aspx

In this article, the authors develop and illustrate the application of a statistically derived model for estimating the risk of adverse events associated with hospitalization. Based on an analysis of hospital administrative data for more than 200,000 patients treated at public hospitals in Victoria, Australia, the model expresses the likelihood of three common adverse events as a function of length of stay, patient risk factors, and hospital characteristics. Six tables are included.

8. Improved Quality and Outcomes through Congruent Leadership, Teamwork and Life Choices

Ungerleider JD, Ungerleider RM.

Progress Pediatr Cardiol. 2011(Dec); 32(2):75–83.

Abstract available at: <http://www.sciencedirect.com/science/article/pii/S1058981311000610>

This article uses social and organizational psychology as a framework to explore issues of teamwork and professionalism in health care. Drawing on case examples and an extensive body of literature, the authors illustrate how individuals' attitudes and behaviors, particularly in relation to management of stressful situations, translate into distinct leadership styles that contribute to or detract from organizational performance in patient safety and quality of care. Recognizing and understanding these patterns of behavior, the authors suggest, is an important step toward enhancing individual and team performance and improving patient care. Five figures are included.

9. Improving Quality of Patient Care by Improving Daily Practice in Radiation Oncology

Chera BS, Jackson M, Mazur LM, et al.

Semin Radiat Oncol. 2012(Jan); 22(1):77–85.

Abstract available at: <http://www.semradonc.com/article/S1053-4296%2811%2900093-2/abstract>

This article highlights the importance of continued quality and safety improvement efforts in radiation oncology, emphasizing the need for improvement activities to be integrated into daily work processes in order to achieve and sustain progress. Five tables and 4 figures are included.

10. Interdisciplinary Team Training Identifies Discrepancies in Institutional Policies and Practices

Andreatta P, Frankel J, Smith SB, Bullough A, Marzano D.

Am J Obstet Gynecol. 2011(Oct); 205(4):298–301.

Abstract available at: <http://www.ajog.org/article/S0002-9378%2811%2900185-2/abstract>

This article describes a study that sought to use simulation-based team training to improve obstetric care at a university medical center. Data collected during post-simulation debriefings were used to identify potential conflicts between institutional policy and actual practice for responding to obstetric emergencies. The authors describe 5 types of discrepancies identified and discuss how other institutions might use such an approach to improve safety and quality of care. One table is included.

11. It's Not All about Me: Motivating Hand Hygiene among Health Care Professionals by Focusing on Patients

Grant AM, Hofmann DA.

Psychol Sci. 2011(Dec); 22(12):1494–1499.

Abstract available at: <http://pss.sagepub.com/content/22/12/1494.abstract>

This study examined the psychology underlying health care professionals' hand hygiene behavior, seeking to determine whether variations in the focus of reminder messages could influence hand hygiene performance. A series of controlled experiments were conducted in a single hospital to compare the impact of signs with two different hand hygiene messages. One sign emphasized the protective benefits of hand hygiene for the individual care provider, and the other emphasized the benefits for patients. Results showed that frequency of hand hygiene increased significantly in the case of the signs emphasizing patient safety, but not with the signs emphasizing personal benefit. The authors conclude that externally focused messages may be more effective than self-focused messages in motivating health care workers to improve hand hygiene. Three tables are included.

12. Patient Safety in Primary Allied Health Care: What Can We Learn from Incidents in a Dutch Exploratory Cohort Study?

Van Dulmen SA, Tacke MAJB, Staal JB, Gaal S, Wensing M, Nijhuis-van der Sanden MWG.

Med Care. 2011(Dec); 49(12):1089–1096.

Abstract available at: http://journals.lww.com/lww-medicalcare/Abstract/2011/12000/Patient_Safety_in_Primary_Allied_Health_Care___What.8.aspx

This study, a component of a larger study of patient safety in primary care in the Netherlands, examined adverse incidents in the care provided at allied health care practices including

physical therapy, exercise therapy, and occupational therapy. The authors present data on the nature and correlates of events based on analysis of 1,000 patient records from 20 allied health practices, and discuss implications of these findings for safety and quality improvement efforts. Four tables and 1 figure are included.

13. Patient Safety Instruction in US Health Professions Education

Kiersma ME, Plake KS, Darbishire PL.

Am J Pharm Educ. 2011(Oct); 75(8):162.

Full text available at: <http://www.ajpe.org/doi/pdf/10.5688/ajpe758162>

This article, based on a systematic review of literature from a 5-year period, provides an overview of efforts to incorporate patient safety education in health professions curricula and offers recommendations to guide further progress in this area. One appendix is included.

14. Patient Safety Problems Associated with Healthcare Information Technology: An Analysis of Adverse Events Reported to the US Food and Drug Administration

Magrabi F, Ong M, Runciman W, Coiera E.

AMIA Annu Symp Proc. 2011; 2011:853–857.

Full text available at: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3243129/pdf/0853_amia_2011_proc.pdf

This study sought to identify and describe the characteristics of adverse events in patient care involving the use of health care information technology (HIT). The authors present results of an analysis of 46 such events reported to the FDA's Manufacturer and User Facility Device Experience (MAUDE) database during a 2.5-year period and discuss possible strategies for improving safety in the use of HIT. One table is included.

15. Patients' and Healthcare Workers' Perceptions of a Patient Safety Advisory

Schwappach DLB, Frank O, Koppenberg J, Müller B, Wasserfallen J-B.

Int J Qual Health Care. 2011(Dec); 23(6):713–720.

Abstract available at: <http://intqhc.oxfordjournals.org/content/23/6/713.abstract>

This study investigated the impact of a patient educational tool on patients' and health care workers' attitudes toward patients' participation in improving the safety of their care. A patient safety advisory booklet, illustrating actions patients can take to help improve safety during a hospital stay, was developed and distributed to patients at three hospitals in Switzerland. Survey results indicated that health care workers as well as patients reacted favorably to the booklet and perceived positive changes in patient engagement as a result of its use. As has been found in other studies, patients' willing-

ness to engage in specific safety behaviors varied considerably and was influenced by a number of factors, including their own perceptions about the appropriate patient role and perceived support from care providers for such participation. Four tables and 3 figures are included.

16. Patients Count on It: An Initiative to Reduce Incorrect Counts and Prevent Retained Surgical Items

Norton EK, Martin C, Micheli AJ.

AORN J. 2012(Jan); 95(1):109–121.

Abstract available at: <http://www.aornjournal.org/article/S0001-2092%2811%2901109-4/abstract>

This article describes how Children's Hospital Boston designed and implemented an initiative to reduce the risk of unintentional postoperative retention of surgical items in patients. The project consisted of a variety of interventions that focused on standardizing the procedures involved in surgical counts and improving the accuracy of counts. The authors report a 50% reduction in the frequency of incorrect counts following implementation of the initiative. Six figures are included.

17. Prevalence of Adverse Events in the Hospitals of Five Latin American Countries: Results of the 'Iberoamerican Study of Adverse Events' (IBEAS)

Aranaz-Andrés JM, Aibar-Remón C, Limón-Ramírez R, et al, on behalf of the IBEAS team.

BMJ Qual Saf. 2011(Dec); 20(12):1043–1051.

Abstract available at: <http://qualitysafety.bmj.com/content/20/12/1043.abstract>

This article reports findings of the Iberoamerican Adverse Event Study (IBEAS), which examined adverse events in hospitals in Argentina, Colombia, Costa Rica, Mexico, and Peru. Analysis of patient data from 58 hospitals showed that approximately 1 in 10 patients at these facilities experienced adverse events in their care and that nearly 60% of these events were considered preventable. The authors discuss implications of these findings and comment on considerations for patient safety research and improvement efforts in developing countries. Five tables are included.

18. Safety of Telephone Triage in Out-of-Hours Care: A Systematic Review

Huibers L, Smits M, Renaud V, Giesen P, Wensing M.

Scand J Prim Health Care. 2011(Dec); 29(4):198–209.

Full text available at: <http://informahealthcare.com/doi/pdf/10.3109/02813432.2011.629150>

Telephone triage—the evaluation and determination of appropriate treatment for patients who contact physicians' offices with medical concerns outside of office hours—may pose risks to patient safety. This article summarizes existing evidence concerning this issue, based on a systematic

review of relevant literature. The studies identified fell into two main categories: observational studies involving actual patients, and studies that used simulated scenarios to examine response to patients presenting with highly urgent problems. While the observational studies showed low rates of safety problems associated with telephone triage, results of the simulation-based studies suggested that such high-acuity patients could be at considerably greater risk for adverse events related to inappropriate triage. Four tables are included.

19. Seek and Ye Shall Find: Consumer Search for Objective Health Care Cost and Quality Information

Sick B, Abraham JM.

Am J Med Qual. 2011(Nov–Dec); 26(6):433–440.

Abstract available at: <http://ajm.sagepub.com/content/26/6/433.abstract>

Public dissemination of health care performance data has been advocated as a way to bolster consumer engagement and to motivate improvement in the quality and safety of care, but evidence suggests that consumers' use of such information has been limited. This study sought to explain this low level of engagement by assessing the availability and accessibility of sources of online health care quality informa-

tion. Using methods designed to mimic consumer search strategies, the authors identified information sources most likely to be located and evaluated the "findability" of specific sites. Results showed that sites most readily found were those owned by private companies, whereas those owned by government or community-based organizations were less likely to be found. The authors suggest that increasing the visibility of sites providing objective data could help to improve consumer awareness and use of such information. Five tables are included.

20. A Successful, Voluntary, Multicomponent Statewide Effort to Reduce Health Care–Associated Infections

Ward MM, Clabaugh G, Evans TC, Herwaldt L.

Am J Med Qual. 2012(Jan–Feb); 27(1):66–73.

Abstract available at: <http://ajm.sagepub.com/content/27/1/66.abstract>

This article describes an initiative led by the Iowa Healthcare Collaborative that aims to reduce health care–associated infections at facilities throughout the state. The authors highlight several ongoing projects and discuss how these efforts might serve as a model for other states seeking to develop similar initiatives. One table and 2 figures are included.

• • •