

Safe Practices for Better Healthcare

Why Implement Practices to Improve Safety in Healthcare?

Just the Facts

- Preventable medical errors have been estimated to cost the United States \$17 billion to \$29 billion per year in healthcare expenses, lost worker productivity, lost income and disability. [IOM, 1999]ⁱ
- One in five patients discharged from the hospital ends up sicker within 30 days, over half of these cases are medication related. [Denham, 2008]ⁱⁱ
- One out of 10 inpatients suffers as a result of a mistake with medication, frequently causing a significant injury and death among hospital patients. [Bates 2008]ⁱⁱⁱ
- It is estimated that 1 of every 10-20 hospitalized patients in the US develops a healthcare-associated infection accounting for nearly 2 million infections and 99,000 associated deaths each year. [Klevens 2007, Yokoe DS 2008]^{iv}

The Practices

(Full list of all 34 Safe Practices available at www.qualityforum.org)

Practice # 7 Disclosure- Provide open and clear communication with patients and families about serious unanticipated outcomes.

- The frequency of disclosure of harmful events is one in four [Fein, 2007] even though patients want disclosure from clinicians each time a harmful medical errors occur. [Sheridan, 2008]^v
- The University of Michigan reported that, after implementation of a full disclosure program, the number of pending lawsuits decreased by half and reduced litigation costs per case fell from \$65,000 to \$35,000. This resulted in an annual savings to their organization of approximately \$2 million in defense litigation bills. [Boothman, 2005; Wocieszak, 2006]^{vi}

Practice #8 Care of the Caregiver – To create a culture of safety and rigorous pursuit of prevention there must be a culture of honesty. Care and support must be provided to those who make or have been involved in mistakes and bear a burden of guilt, shame and failure.

- By creating a “culture of safety” where staff are encouraged and recognized for reporting events and near misses, Sentra Norfolk General Hospital reduced Ventilator-associated pneumonia by 84 percent and device-associated bloodstream infection by 63 percent.^{vii}
- Harm to caregivers can be profoundly preventable with timely, systematic, and direct action by healthcare organization leaders. [West, 2006]^{viii}
- A 2007 multi-institutional study of almost 3,000 physicians in the U.S. and Canada revealed that 90% believe that healthcare organizations need to provide more systematic support services to them after unintentionally harming a patient. [Waterman, 2007]^{ix}

Practice #17 Medication Reconciliation – Develop, maintain and communicate an accurate list of each patient’s medications.

- 10% to 67% of patients had at least one prescription medication history error at hospital admission. When non-prescription drugs were included the frequency was 27% to 83%; and when information on drug allergies and prior adverse events were included, the frequency was 34% to 95%. [Tam, 2005; Gleason 2004]^x
- Medication errors occur in approximately 12% of patients. [Forster, 2003]^{xi} In one study, 22% of medication errors occurred at admission, 66% occurred during transitions in care, and 12% occurred at the time of discharge. [Santell, 2006] (SP Med Rec Chapter 6)

Practices # 19- 25 Healthcare Acquired Infections – Policies and procedures such as hand washing should be in place to reduce infections.

- Approximately 14,000 deaths occur each year due to Central Line-Associated Blood Stream Infections. The total financial cost of such infections is estimated at over \$9 billion annually. [Pittet, 1994; Berenholtz, 2004]^{xii}
- Surgical site infections (SSI) occur with the second highest frequency of any adverse event occurring in hospitalized patients. According to a report from the Pennsylvania Health Care Cost Containment Council, the cost of an SSI was \$135,132 compared to a hospital stay with no infection of \$33,260. SSI’s in total account for up to \$10 billion annually in healthcare expenditures. [Wong, 2004]^{xiii}

- Ventilator-associated pneumonia (VAP) increases average hospitalization costs by \$41,285. Adopting care practices that have been demonstrated to reduce the risk of VAP. [Rello, 1996]^{xiv}
- More than 126,000 hospitalized persons are infected with Multi-Drug Resistant Organisms annually at an additional cost of more than \$39,000 per patient. [IHI, 2008]^{xv}

Practice #34 Pediatric Imaging - Child-size techniques should be used when imaging studies are done on children.

- There are more than 60 million CT scans performed annually in the U.S; 11% of those are children [NCI, 2008]^{xvi}
- A change in CT exam parameters for children could reduce the dose delivered to them from 5% to 90% while retaining diagnostic accuracy. [Brody, 2007]^{xvii}

ⁱ 82 IOM, *To Err Is Human: Building a Safer Health System*. Washington, DC: National Academy Press; 1999.

ⁱⁱ Denham CR, Dingman J, Foley ME, et al. Are you listening...are you really listening? *J Patient Saf* 2008 Sep;4(3):148-61.

ⁱⁱⁱ Bates DW. Saving Lives, Saving Money: The Imperative for Computerized Physician Order Entry in Massachusetts. Massachusetts Technology Collaborative and New England Healthcare Institute. 2008 Feb. Available at http://www.nehi.net/uploads/full_report/cpoe20808_final.pdf. Last accessed November 18, 2008].

^{iv} Klevens RM, Edwards JR, Richards CL Jr, et al. Estimating health care-associated infections and deaths in U.S. hospitals, 2002. *Public Health Rep.* 2007 Mar-Apr;122(2):160-6.; Yokoe DS et al. A Compendium of Strategies to Prevent Healthcare-Associated Infections in Acute Care Hospitals. *ICHE* 2008; 28(1) S12-21.]

^v Sheridan S, King C, Conrad N, Dingman J, Denham CR. Disclosure Through Our Eyes. *J Patient Saf* 2008 Mar;4(1):18-26.

^{vi} Boothman R. How open, honest disclosure can reduce claims, costs, and promote patient safety improvement. New York City (NY): Annual Meeting of Greater New York Hospital Association; May 13, 2005.; Wojcieszak D, Banja J, Houk C. The Sorry Works! Coalition: making the case for full disclosure. *Jt Comm J Qual Patient Saf* 2006 Jun;32(6):344-50

^{vii} <http://www.commonwealthfund.org/Content/Innovations/Case-Studies/2008/Sep/Case-Study--Accelerating-Patient-Safety-Improvement-by-Strengthening-the-Culture-of-Safety---Sentara.aspx>

^{viii} West CP, Huschka MM, Novotny PJ, et al. Association of perceived medical errors with resident distress and empathy: a prospective longitudinal study. *JAMA* 2006 Sep 6;296(9):1071-8. Available at <http://jama.ama-assn.org/cgi/content/full/296/9/1071>. Last accessed January 8, 2009.

^{ix} Waterman AD, Garbutt J, Hazel E, et al. The emotional impact of medical errors on practicing physicians in the United States and Canada. *Jt Comm J Qual Patient Saf* 2007 Aug;33(8):467-76.

^x Tam VC, Knowles SR, Cornish PL, et al. Frequency, type and clinical importance of medication history errors at admission to hospital: a systematic review. *CMAJ* 2005 Aug 30;173(5):510-5. Available at <http://www.pubmedcentral.nih.gov/articlerender.fcgi?tool=pubmed&pubmedid=16129874>. Last accessed November 10, 2008.; Gleason KM, Groszek JM, Sullivan C, et al. Reconciliation of discrepancies in medication histories and admission orders of newly hospitalized patients. *Am J Health Syst Pharm* 2004 Aug 15;61(16):1689-95.

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- ^{xi} Forster AJ, Murff HJ, Peterson JF, et al. The incidence and severity of adverse events affecting patients after discharge from the hospital. *Ann Intern Med* 2003 Feb 4;138(4):161-7. Available at <http://www.annals.org/cgi/reprint/138/3/161.pdf>. Last accessed November 10, 2008.
- ^{xiii} Pittet D, Tarara D, Wenzel RP. Nosocomial bloodstream infection in critically ill patients. Excess length of stay, extra costs, and attributable mortality. *JAMA* 1994 May 25;271(20):1598-601.; Berenholtz SM, Pronovost PF, Lipsett PA, et al. Eliminating catheter-related bloodstream infections in the intensive care unit. *Crit Care Med* 2004 Oct;32(10):2014-20.
- ^{xiii} Wong ES. Surgical site infections. In: Mayhall CG, ed. *Hospital Epidemiology and Infection Control*. 3rd ed. Baltimore, MD: Lippincott Williams & Wilkins, 2004:287-310.
- ^{xiv} Rello J, Torres A. Microbial causes of ventilator-associated pneumonia. *Semin Respir Infect* 1996 Mar;11(1):24-31.
- ^{xv} Institute for Healthcare Improvement. 5 Million Lives Campaign. Getting Started Kit: Reduce Methicillin-Resistant *Staphylococcus aureus* (MRSA) Infection: How-to Guide. Cambridge (MA): Institute for Healthcare Improvement; 2008. Available at <http://www.ihl.org/nr/rdonlyres/f4d9de7a-3952-4ae7-bbac-4e4222084a03/0/mrsahowtoguide.doc>. Last accessed November 24, 2008.
- ^{xvi} National Cancer Institute. *Radiation Risks and Pediatric Computed Tomography (CT): A Guide for Health Care Providers*. Bethesda, MD: National Cancer Institute, 2002. Available at <http://www.cancer.gov/cancertopics/causes/radiation-risks-pediatric-CT>. Last accessed October 26, 2008.
- ^{xvii} Brody AS, Frush DP, Huda W, et al. Radiation risk to children from computed tomography. *Pediatrics* 2007 Sep; 120(3):677-82.