10 Patient Safety Tips for Hospitals

Medical errors can occur at many points in the health care system, particularly in hospitals. The Agency for Healthcare Research and Quality (AHRQ) has funded more than 100 patient safety projects since 2001. Many of the findings can immediately be put into practice in hospitals by following 10 simple tips:

1. **Survey staff in individual units and throughout the hospital to assess and improve the culture of patient safety,** as noted in the 1999 Institute of Medicine report, *To Err is Human*. The AHRQ survey and its accompanying toolkit materials are designed to provide hospital officials with the basic knowledge and tools needed to conduct a safety culture assessment, along with ideas for using the data.

2. **Limit shifts of more than 24 hours for medical residents and make sure they do not drive home after working extended shifts.** Medical residents who work longer than 24 hours are more than twice as likely to have a car crash leaving the hospital and 5 times as likely to have a near-miss incident on the road than medical interns who work shorter shifts.

3. **Eliminate the tradition of shifts of more than 30 consecutive hours by interns working in hospital ICUs.** The rate of serious medical errors at two Boston hospital ICUs committed by first-year interns dropped by 36 percent when 30-hour-in-a-row work shifts were eliminated.

4. **Adopt interventions to reduce the incidence of ventilator-associated pneumonia in critically ill patients.** Putting patients in a semi-recumbent position and using sucralfate rather than H2-antagonists to prevent stress ulcers can prevent ventilator-associated pneumonia in critically ill patients.

5. **Count surgical instruments and sponges before and after procedures, and X-ray patients after surgery to reduce the likelihood of objects being left inside patients.** These simple techniques can reduce the incidence of these types of medical errors, which occur in more than 1,500 patients each year.

6. **Use senior nurses and maintain appropriate round-the-clock staffing levels in ICUs to prevent airway tube complications.** A study of adverse events occurring in adult and pediatric ICUs found that more than half were considered preventable. Airway events occurred less frequently during daytime hours (7:00 a.m. to 3:00 p.m.), and their negative impact was limited by skilled assistants, backup, and cross-coverage. ICU managers should take steps to ensure that appropriate staffing and training levels are maintained to limit the impact of adverse events.

7. **Ensure that personal digital assistant-based drug information is readily available at the point of care.** Epocrates RxPro, Lexi-Drugs, and mobileMicromedex met AHRQ's quality and safety criteria by reducing potential errors associated with insufficient or incomplete drug information.

8. **Download a free software tool** (http://chrp.creighton.edu/documents/bestpractices.pdf) **to identify ways to improve medication safety in the ambulatory care setting.** The tool, called the Medication Safety Best Practices Guide, helps hospitals identify ways to create safe practices for medication use, manage medical errors, and contribute to patient safety education in the ambulatory care setting.

9. **Use computer-based order entry to reduce catheter-related urinary tract infections.** A computer-based order entry system prompting catheter removal after 72 hours decreases the duration of urinary catheterization by about one-third, or 3 days.

10. **Minimize interruptions and other distractions faced by the nursing staff in their day-to-day routines.** Researchers have visually re-created the fast-changing nature of nurses' work, highlighting areas where interruptions can affect patient safety.

(See reverse for references)

References for Tips, by Number

1. **Project Title:** Hospital Survey on Patient Safety Culture. Developed under contract for the Agency for Healthcare Research and Quality
Reference: http://www.ahrq.gov/qual/hospculture/

2. **Project Title:** Effects of Extended Work Hours on ICU Patient Safety
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Reference: Barger LK, et. al. Extended work shifts and the risks of motor vehicle crashes among interns. N Engl J Med 2005 Jan 13;352(2): 125-34.

3. **Project Title:** Effects of Extended Work Hours on ICU Patient Safety
Principal Investigator: Charles Czeisler, M.D.
Reference: Landrigan, CP, et. al. Effect of reducing interns' work hours on serious medical errors in intensive care units. N Engl J Med. 2004 Oct 28;351(18): 1838-48.

4. **Project Title:** Targeting Interventions to Reduce Errors
Principal Investigator: Timothy Hofer, M.D.
Reference: Collard, HR, et. al. Prevention of ventilator-associated pneumonia: an evidence-based systematic review. Ann Intern Med. 2003 Mar 18;138(6): 494-501.

5. **Project Title:** Malpractice Insurers' Medical Error Prevention Study
Principal Investigator: David M. Studdert, M.D.
Reference: Gawande, AA, et. al. Risk factors for retained instruments and sponges after surgery. N Engl J Med. 2003 Jan 16;348(3):229-35.

6. **Project Title:** Intensive Care Safety Reporting System
Principal Investigator: Peter Pronovost, M.D.
Reference: Needham, DM, et. al. A systems factors analysis of airway events from the Intensive Care Unit Safety Reporting System Crit Care Med. 2004 Nov;32(11): 2227-33.

7. **Project Title:** Training Physicians to Use a Handheld Device for Electronic Prescribing
Principal Investigator: Kimberly Galt, Pharm.D
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8. **Project Title:** Impact of Personal Digital Assistant Devices on Medication Errors in Primary Care
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10. **Project Title:** Work Environment Effects on Quality of Healthcare
Principal Investigator: Bradley Evanoff, M.D.
Reference: Potter, P et. al. An analysis of nurses' cognitive work: a new perspective for understanding medical errors. In: Battles J, et al. (Editors). Advances in Patient Safety; Vol. 1—Research Findings (AHRQ Publication No. 05-0021-1). Rockville, MD: February 2005; p. 39-51.

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Advancing Excellence in Health Care • www.ahrq.gov

PATIENT SAFETY

AHRQ Pub No. 06-P020
May 2006