



10 Patient Safety Tips for Hospitals

Medical errors (or adverse events) can occur at many points in the health care system, particularly in hospitals. These tips for hospitals are from studies by the Agency for Healthcare Research and Quality (AHRQ), which has funded more than 100 patient safety projects since 2001. Many findings from AHRQ research can be put into practice in hospitals by following 10 practical tips:

- 1. Assess and improve your patient safety culture.** Survey staff in individual units and throughout the hospital to improve the culture of patient safety, as noted in the 1999 Institute of Medicine report, *To Err is Human*. Surveys are available, including AHRQ's free *Hospital Survey on Patient Safety Culture* and its accompanying toolkit materials (<http://www.ahrq.gov/qual/hospculture/>), designed to provide basic knowledge and tools for action.¹
- 2. Build teamwork.** Train hospital staff to communicate effectively as a team. A free, customizable toolkit (called TeamSTEPPS), developed by AHRQ and the Department of Defense, provides evidence-based training techniques for effective communication and other teamwork skills. TeamSTEPPS can be tailored to any health care setting, from emergency departments to ambulatory clinics (<http://www.ahrq.gov/qual/teamsteps/>).²
- 3. Limit shifts for hospital staff, if possible.** Consider options to minimize shifts of more than 16 consecutive hours by residents, interns, and nurses working in hospitals. The rate of serious medical errors at two Boston hospital intensive care units (ICUs) by first-year interns dropped by 36 percent when 30-hour-in-a-row work shifts were eliminated. Motor vehicle accidents and needle stick injuries by sleep-deprived interns also decreased with shorter shifts.³
- 4. Insert chest tubes safely.** Universal Precautions (achieved by using sterile cap, mask, gown, and gloves); Wider skin prep; Extensive draping; and Tray positioning (UWET an easy-to-remember mnemonic) should be used when inserting chest tubes, as per a universal protocol from the Joint Commission. A free 11-minute DVD from AHRQ provides video excerpts of 50 actual chest tube insertion procedures to illustrate problems that can occur (<http://www.ahrq.gov/qual/chesttubes.htm>).⁴
- 5. Prevent central line-related bloodstream infections.** Being vigilant and using five evidence-based procedures—including hand washing, using full-barrier precautions during the insertion of central venous catheters, cleaning the skin with chlorhexidine, avoiding the femoral site, and removing unnecessary catheters—reduced deadly infections to zero in a study at more than 100 large and small hospitals.⁵
- 6. Make good use of senior ICU nurses.** Use Registered Nurses and maintain appropriate round-the-clock staffing levels in intensive care units (ICUs) to prevent airway tube complications. Adults and children had fewer airway events 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 in ICUs.⁶
- 7. Use reliable decision-support tools at the point of care.** Ensure that computerized physician order entry or personal digital assistant-based drug information is readily available at the point of prescribing or ordering. For example, RxPro, ePocrates, Lexi-Drugs, and mobileMicromedex met AHRQ's quality and safety criteria by reducing potential errors associated with insufficient or incomplete drug information.⁷
- 8. Set up a safety reporting system.** Watch a video that explains how to implement a Web-based reporting system in the ICU to help eliminate system failures that lead to errors in health care (http://safetyresearch.jhu.edu/QSR/Research/Projects/project_ICUSRS.asp). Compare near-misses to adverse events and examine providers' perceptions of reporting systems⁸ (<http://chrc.creighton.edu/documents/bestpractices.pdf>).
- 9. Limit urinary catheter use to 3 days.** Assess catheter use early and use computer-based reminders to alert clinicians to remove catheters as soon as possible to reduce the risk of urinary tract

infections (UTIs). 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, and reduces UTIs.⁹

10. **Minimize unnecessary interruptions.** Reduce distractions faced by the nursing staff, especially during critical times such as shift changes. Encourage staff to speak up when necessary, but create a “zone of silence” near medication preparation carts and other areas where concentration is essential.¹⁰

References for Tips, by Number

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2. **Project Title:** TeamSTEPPS: Strategies and Tools to Enhance Performance and Patient Safety
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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; 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; Ayas N, et al. Extended work duration and the risk of self-reported percutaneous injuries in interns. *JAMA* 2006 Sep 6;296:1055-62.
4. **Project Title:** Brief Risky High Benefit Procedures: Best Practice Model
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5. **Project Title:** Intensive Care Unit Safety Reporting System
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6. **Project Title:** Intensive Care Unit Safety Reporting System
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7. **Project Title:** Training Physicians to Use a Handheld Device for Electronic Prescribing
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8. **Project Title:** Intensive Care Safety Reporting System
Principal Investigator: Peter Pronovost, M.D.
Reference: Available at: http://safetyresearch.jhu.edu/QSR/Research/Projects/project_ICUSRS.asp
9. **Project Title:** Targeting Interventions to Reduce Errors
Principal Investigator: Timothy Hofer, M.D.
Reference: Cornia PB, et al. Computer-based order entry decreases duration of indwelling urinary catheterization in hospitalized patients. *Am J Med* 2003 Apr 1;114(5):404-7.
10. **Project Title:** Work Environment Effects on Quality of Healthcare
Principal Investigator: Bradley Evanoff, M.D.
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