

Prevention of hospital acquired infections: Implementation of critical care nursing bundles to prevent ventilator, central line, and foley infections

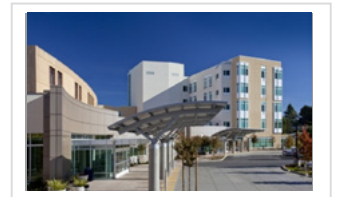


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Biography

Laura Chung has twenty years of adult and critical care nursing experience in diverse settings, from community hospitals in California to large teaching institutions in Connecticut and New York. Her passion is providing high tech skill along with compassionate, culturally sensitive care to critically ill patients and their families. She is currently a staff nurse in the MSICU at John Muir Health in Concord, CA. Special interests include sepsis, telemedicine, legal nursing issues, and bedside nursing education.



Abstract

Statement of the Problem: Hospital Acquired Infections (HAIs) are life-threatening to patients. In the United States, an average of 1.7 million HAIs occur annually; 99,000 deaths result from these infections. The most common sites of these infections are: urinary catheters (32%), surgical sites (22%), lung/ventilator infections (15%), and bloodstream/central lines (14%). These infections occur in all types of settings, from hospitals to nursing homes and rehab centers. Nurse driven bundles have proven successful in decreasing the occurrences of HAIs. These bundles involve collaboration with other interdisciplinary members of the healthcare team, such as respiratory therapists. Ventilator bundle elements include: CHG mouthwash prior to intubation, mouthcare and documentation q2-4 hours by the RN and RT, head of bed elevation to 30 degrees, and continued CHG mouthwash for 24 hours after extubation. Urinary catheter bundles include: 2 nurse insertion, CHG catheter care documented q8 hours, daily assessment of need, use of securement device, and use of less invasive devices, such as the Purewick device. **Methodology & Theoretical Orientation:** Critical care nurses at John Muir Health implement these bundles based on their patients' needs. For example, an intubated patient with a Foley catheter and central line will get all three bundles of care implemented. Bundles are documented in the medical record at certain intervals.

Conclusion & Significance: Nurses are independently driving a reduction of HAIs by implementing these measures. Nurses at John Muir Health have obtained zero central line infections for over one year. **Recommendations:** These bundles have had widespread success in the critical care arena. Can these bundles be implemented in other healthcare settings, such as long-term care facilities? g-term care facilities?

Publications

1. Lewis, S., Moehring, R., Chen, L., Sexton, D., Anderson, D. (2013) Assessing the Relative Burden of Hospital-Acquired Infections in a Network of Community Hospitals. *Infection Control & Hospital Epidemiology* 34 (11), 1229-1230.
2. Sanjay, S., Greene, T., Kowalski, C., Watson, S., Hofer, T., Krein, S., (2013) Preventing Catheter Associated Urinary Tract Infection in the United States: A National Comparative Study. *JAMA Internal Medicine* 173 (10), 874-879.
3. Welsh, C., Flanagan, M., Hoke, S., Doebbeling, B., Herwaldt, L. (2012) Reducing Healthcare Associated Infections: Lessons Learned from a National Collaborative of Regional HAI Programs. *American journal of Infection Control* 40 (1), 29-34.