Chasing Zero. Reducing Hospital Acquired Conditions in the Intensive Care Unit

Kelly Johnson, MN, RN, CEN., Cora Mendoza, MSN, RN, CCRN., Kristin Rosenbush, MSN, RN, CCRN, Lorena Rivera, MSN, RN
Surgical Intensive Care Unit, Medical Intensive Care Unit
Mayo Clinic, Jacksonville, FL

Abstract

Background: Catheter-Associated Urinary Tract Infections (CAUTI) are the most commonly reported hospital-acquired condition, and the rates continue to rise. More than 560,000 patients develop CAUTI each year, leading to extended hospital stays, increased health care costs, and patient morbidity and mortality. .

Objective: There was an increased incidence of CAUTI in the intensive care units as noted by Infection Prevention. The goal was to decrease CAUTI rates to below the NDNQI mean (<1.19) by September 2015.

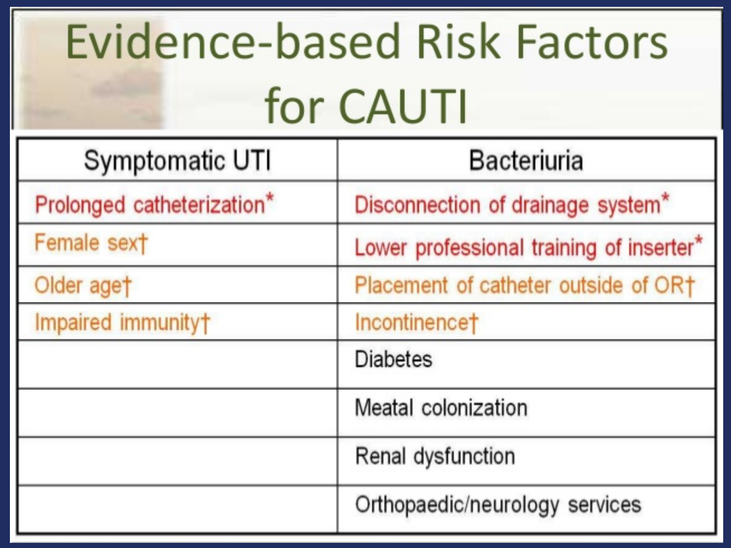
Methods: There are three areas to improve evidence-based clinical care to reduce the rate of CAUTI: (1) prevention of inappropriate short-term catheter use, (2) nurse-driven timely removal of urinary catheters, and (3) urinary catheter care. Nursing screening and assessment and evidence-based management of urinary retention and incontinence is essential to reduce catheter overuse. The intensive care units adopted the American Nurses Association evidenced-based tool that incorporates an algorithm to determine if a urinary catheter is appropriate based on nursing screening and assessments, as well as alternatives for retention and incontinence; timely removal; and a checklist on catheter insertion, cues for essential maintenance and post-removal care. The specific initiatives that were implemented were: daily foley rounds by the team, standardization of the foley kit between ED/OR/ICU, use of “M-Care” wipes , elimination of unnecessary urine cultures, stablization of catheter with “Stat-lock” device.

Results: Both the MICU and SICU had reductions in CAUTI incidence with a zero incidence of CAUTI as of 2Q15.

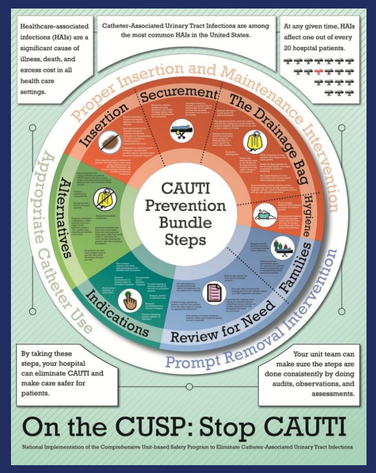
Results

Catheter Associated Urinary Tract Infections per 1000 Catheter Days (CAUTI)

	1Q14	2Q14	3Q14	4Q14	1Q15	2Q15
4S - SICU	3.13	4.47	2.21	2.67	3.3	0
NDNQI Mean	2.56	2.39	2.29	2.19	1.19	1.21
4N - MICU	2.63	1.32%	1.48	6.09	0.00	0.00
NDNQI Mean	3.11	2.30	2.29	2.19	1.19	1.21



Methods



References

1. Gould, C.V., Umscheid, C.A., Agarwal, R.K., Kuntz, G., Pegues, D.A. (2010). Guideline for prevention of catheter-associated urinary tract infections. Infect Control Hosp Epidemiol, 31(4), 319-326.
2. Lo, E., Nicolle, L.E., Coffin, S.E., Gould, C., Maragakis, L.L., Meddings, J,…Yokoe, D.S. (2014). Strategies to prevent catheter-associated urinary tract infections in acute care hospitals: 2014 update. Infect Control Hosp Epidemiol, 35(5), 464-479..
3. Meddings, J., Rogers, M.A., Krein, S.L., Fakih, M.G., Olmsted, R.N, Saint, S. (2013). Reducing unnecessary urinary catheter use and other strategies to prevent catheter-associated urinary tract infection: an integrative review. BMJ Qual Saf, 23(4), 277-289..

© 2015 Mayo Foundation for Medical Education and Research