Reduction of Catheter Associated Urinary Tract Infections (CAUTIs) Through a Culture Change Plan Do Study Act (PDSA)

Suzanne Yeakel, RN, Jennifer Ash, APRN, Kathryn Galvin, MT, CIC, Donna Shaw, RN, Marion Beucler, RN, Stephanie Kasek, RN, Mary Kate Eanniello, RN, Gwen Redler, RN, Liza Nowicki, RN, MSN & the HH CAUTI Team, Hartford Hospital, Hartford, CT.

Purpose & Rationale:

Catheter-associated urinary tract infection (CAUTI) is a serious adverse event in hospitalized patients with evidence to support preventability. At our 800 bed level-1 trauma center, we embarked on an inter-professional initiative to improve and sustain the safety and quality of urinary catheter care through evidence-based practice and culture change.

Quality Improvement Questions:

What gaps exist in our current practice with urinary catheter care? What strategies can change the culture surrounding urinary catheters to successfully reduce and sustain infection rates?

Synthesis of Review of Literature:

Current literature describes best practices to reduce CAUTI. [1-3] In addition, health care organizations that embrace a culture of safety have advantages for sustaining quality improvements. [4,5]

Methods/Procedures:

An inter-professional team was assembled to assess institutional clinical practice and plan adoption of best practice strategies. Gap analysis revealed wide variation in practice and lack of education and training in the aseptic placements of catheters. A key factor in the project was to change the culture of "it's just a Foley", replaced with respect for the potential of adverse outcome with these devices. A single standard for insertion, maintenance, removal and specimen sampling was established including substitution of evidence based products, order sets, and nurse-driven removal criteria. Similar to insertion standards for other invasive lines, we implemented a 'stop the line' two-person buddy requirement for all urinary catheter insertions. Training methodology included super-user peer training and spread, educational modules, and use of simulation center and manikins. Application of our institutional communication, safety, reliability and leadership behaviors supported the initiative. .

Results:

Our goal was to decrease the number of CAUTIs in critical care areas by 20% and validate our nursing staff within 95%. Through this Plan-Do-Study-Act (PDSA) improvement process, we

were able to reduce our number of CAUTIs by 30% and validated 96% of our nursing staff within a 5 month window.

Discussion/ Application to Practice:

This project illustrates an effective PDSA improvement process including engagement of key stakeholders to create momentum for practice change, application of effective educational strategies and supported overall by organizational culture commitment.

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. Retrieved from http://www.jstor.org/stable/10.1086/651091.

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. Retrieved from http://www.jstor.org/stable/10.1086/675718.

3.American Nurses Association. ANA CAUTI Prevention Tool. 2015. Accessed 5/15/16 http://nursing world.org/ANA-CAUTI-Prevention-Tool

4. Toolkit for Reducing CAUTI in Hospitals. October 2015. Agency for Healthcare Research and Quality, Rockville, MD. http://www.ahrq.gov/professionals/quality-patient-safety/hais/tools/cauti-hospitals/index.html

5. Surveys on Patient Safety Culture. April 2016. Agency for Healthcare Research and Quality, Rockville,,MD. Accessed 5/15/16 http://www.ahrq.gov/professionals/quality-patient-safety/patientsafetyculture/index.html