Electronic Health Record: Driving Evidence-Based CAUTI Care Practices
Lois Mae Welden, RN, MSN
Deaconess Hospital, Inc.
Cathy Seuell

Problem:
Catheter associated urinary tract infections (CAUTI) continue to account for most hospital-acquired infections. Up to 25% of all hospitalized patients will receive an indwelling catheter while hospitalized and half of these will not have an evidence based criterion for insertion or to continue with the catheter. The electronic health record (EHR) assists in driving evidence-based care practices.

Evidence:
Articles were produced via CINAHL, PubMed, and OVID. The literature is supported via systematic reviews, meta-analysis, and case studies. New guidelines now have a greater emphasis on prevention of infection by limiting catheter use and minimizing the duration of use. Catheter care practices needed improvement as evidenced via staff survey, manual chart audits, and a prevalence study.

Strategy:
The strategy was to improve patient safety by embedding an infrastructure within the EHR to provide clinical decision support, drive evidence-based care delivery, and educate sustainability.

Practice Change:
Nurses document evidence-based criterion for initial catheter insertion and on each shift by clicking the criterion that meets the need to continue. If the patient does not meet a criterion to continue, the physician is contacted.

Evaluation:
Monthly prevalence studies are performed at a specific time using the daily 0600 census for calculation. Units perform their own audits and reinforce care practices.

Results:
When comparing actual to expected urine cultures, boxplot showed significant decrease in positive urine cultures as well as a P value of 0.000 (Paired T-Test). When comparing the first 7 months to the second 7 months, post EHR implementation, there was significant improvement with catheter care practices (P- 0.006, paired T-Test) and documentation of evidence based criterion for the catheter (P value of 0.001, paired T-Test)

Recommendations:
Successful implementation and sustainability of CAUTI is contributed to interdisciplinary collaboration, the EHR, respective unit ownership, and communication.

Lessons Learned:
Going “Live” simultaneously with a new electronic health record implementation can deter immediate documentation improvement.