Results: After the implementation of hospital-wide CVC bundle, we have experienced twice eighteen consecutive months of zero CRBSI in the ICU, and nine consecutive months of zero CRBSI for the entire hospital. Periodical CRBSI cases were seen in the third and the fourth quarter of year 2012, and the third quarter of 2014.

Conclusions: Hospital-wide CVC bundle effectively reduces CRBSI incidence in the ICU and in the entire cancer hospital; however periodical breakthrough infections can occur.

EVALUATE THE EFFECT OF EDUCATING PRIMARY CAREGIVER THE USE OF BUNDLE CARE IN PREVENTION OF CATHETER-ASSOCIATED TRACT INFECTIONS

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Purpose: The purpose of this study was to evaluate the effect of prevention of catheter-associated urinary tract infections (CAUTI) by educating caregivers about CAUTI bundle care.

Methods: This study was conducted in a general ward of a medical center from January to September 2014, purposeful sampling patients with urinary catheter. Interventions were focused on the primary caregivers of patients with urinary catheter and CAUTI bundle care were used.

Results: From January to December 2013, the catheter-associated urinary tract infection rate of the research unit was 0.36%. During the study period, through educating the primary caregiver and increase their compliance with the bundle care, the urinary tract infection rate decreased to 0%.

Conclusions: As the result has shown in this study, promoting bundle care in patient care units and to include the primary caregivers in the care team, can significantly lower catheter-associated urinary tract infections rate. Through infection prevention health education, and educating the primary caregivers the techniques of dumping urine, hand hygiene and other care skills, it helps to reduce catheter related urinary tract infections. The results of this study can be used as a future education reference for the primary caregivers with patients indwelling catheter and to improve the quality of clinical care.

BUNDLE INTERVENTION TO REDUCE CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS IN A SURGICAL INTENSIVE CARE UNIT IN A TEACHING HOSPITAL IN TAIWAN

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Purpose: To determine whether an intervention involving staff education, increased awareness, hand hygiene promotion, and practice changes would decrease central line–associated bloodstream infection (CLABSIs) rates.

Methods: We conducted a retrospective cohort study in the surgical ICU in a tertiary care, university-affiliated teaching hospital, which has a 759-bed capacity, including 18 beds (all single bed rooms) in the surgical ICU. To prevent CLABSIs, during the intervention period (Apr 2013 to December 2013), a quality improvement programs had implemented including education for physicians and nurses, hand hygiene promotion, using full barrier precautions during the insertion of central venous catheters, cleaning the skin with 2% chlorhexidine, avoiding insertion via femoral site if possible, and removing unnecessary catheters. a unit-based infection control nurse position with real-time feedback, a committee convened to track CLABSIs data and prevent nosocomial infections.

All analyses were conducted using SAS version 9.2 (SAS Institute). Poisson regression modeling was used to compare infection rates before, during implementation of the study intervention. Rates of infection per 1000 catheter-days were measured at 3-month intervals, according to the guideline lines of the National Nosocomial Infections Surveillance System. All tests were two-tailed and p<.05 was considered to be statistically significant.

Results: As compared with the preintervention period and the intervention period, the percentage of central venous catheters inserted into the femoral vein decreased from 23.4% to 12%. The rate of CLABSIs decreased from 12.3 per 1000 catheter-day during the pre-intervention period to 7.2 per 1000 catheter-day post-intervention period. The rate of CLABSIs was reduced by 41% since the intervention.

Conclusions: Our data support a multidisciplinary, evidence-based bundle interventions could reduce the incidence of central line–associated bloodstream infections in the surgical ICU.