CONSTRUCTION AND TEST OF THE EFFECTIVENESS OF "CENTRAL VENOUS CATHETER BUNDLE CARE" FOR THE PREVENTION OF CENTRAL VENOUS CATHETER-RELATED BLOODSTREAM INFECTION
Kuei-Tzu Yang 1, Li-Fen Huang 1, Guo-Xi Lin 2, *Tungs* Taichung MetroHarbor Hospital Infection Control Committees, Taiwan; 2Providence University, Taiwan; *Tungs* Taichung MetroHarbor Hospital Infection Control Committees, Taiwan

**Purpose**: Bloodstream infections are the second leading cause of community-acquired infection in Regional Hospitals. The Centers for Disease Control and prevention (CDC) published guidelines on the prevention of bloodstream infection in 2011, which indicated that bundle care can effectively reduce bloodstream infections.

**Methods**: The study was conducted in a 319-bed teaching hospital. Existing data analysis methods were used. Compliance of medical staff was observed by making repeated attempts to monitor the implementation of bundle care.

**Results**: From January 2013 to May 2014, a total of 3,656 catheters were placed. After comparing the medical chart ID and date of infection, and excluding the time difference between episodes, the occurrence of catheter-related bloodstream infection during this period was 2,293 episodes. Owing to the variation in the number of catheters placed each month, the comparison was not possible. The study showed that the number of placed catheters increased, and the rate of catheter-related bloodstream infection decreased downward.

**Conclusions**: The implementation of bundle care did not decrease the occurrence of bloodstream infection. The infection rate of patient-catheter-based data showed a downward trend.

PS 1-127

THE EFFECT OF BUNDLE PLAN ON CENTRAL CATHETER-RELATED BLOODSTREAM INFECTIONS: A REGIONAL HOSPITAL EXPERIENCE
Jui-Hei Chung 1, Chung-Wei Chou 1, Fu-Der Wang 1, 2, Yow-Ren Lin 1, Wen-Huey Tsai 1, Hisao-Wen Chiang 1, Biing-Shiun Hung 1, *Taipei Municipal Dansha Hospital, Taiwan*; 2Taipei Veterans General Hospital, Taiwan; 3National Yang-Ming University, Taiwan

**Purpose**: Invasive medical devices are necessary for clinical treatment, unfortunately it also becomes one of the major healthcare-associated infection risk factors. According to the annual surveillance data by Gan-dau hospital, central catheter-related bloodstream infections (CLABSI) and intravascular catheter was the second leading cause of community-acquired bloodstream infections. The intervention in intensive care unit (ICU) was 5.92 episodes and 5.05 episodes in January 2010. To improve the infection rate, a bundle was formed.

**Methods**: By participating in quality improvement bundles, we implemented a bundle plan to reduce CLABSI in 2013, which involved five components: (1) hand hygiene compliance was increased to 100% and the accuracy of hand hygiene reached 96.6%; (2) using chlorhexidine gluconate disinfectants, avoiding femoral venous catheters, maximum sterile barrier precautions, using 2% alcohol-based hand decontamination pre-insertion; (3) full sterile barrier precautions; (4) skin antisepsis avoidance; and removing femoral CVCs as necessary.

**Results**: The main findings of this plan were revealed two ways, one at ICU: the annual average catheter infection rate was 5.4% and 6.4% annually. The hand hygiene rate was 0/106 and 0/106, and the hand hygiene compliance improved 9.5%.

**Conclusions**: Education, training, and operation audits can strengthen healthcare personnel and prevent CLABSI.