Evaluation on the Effectiveness of Central Line Care Bundle in Hospitalized Oncology Patients to Reduce the Rate of Central Line Associated Bloodstream Infections (CLABSI)
Chan SL, Wan WM, Hung YK, Liu TK, Ng LL, Yuen ML, Lee KH, Fung WY, Radha Raghupathy, Mak SS
Department of Clinical Oncology, Prince of Wales Hospital, Hong Kong

Keywords:
Central line care bundle
Oncology patient
Central Line Associated Bloodstream Infections (CLABSI)

Introduction
Hematology/oncology patients are at high risk for Central Line Associated Bloodstream Infections (CLABSI) due to their diseases and the severe immunosuppression that results from chemotherapy. CLABSI increases hospital costs and length of stay. The cost of these infections is substantial, both in terms of morbidity and financial resources. In order to improve patient outcomes and to reduce health-care costs, best practice care bundles for reducing of CLABSI was implemented in Oncology in 2014.

Objectives
Care bundles are composed of a series of intervention that when used together are effective in preventing CLABSI. The objective is to evaluate the effectiveness of best practice care bundles to reduce Central Line Associated Bloodstream Infections (CLABSI) rates in hospitalized Oncology patients, outline the epidemiology of CLABSI in this population and patients’ outcome.

Methodology
Surveillance for CLABSI was performed prospectively by Infection Control Unit. CLABSI rates were reviewed after implementation of the interventions.

Result
Results
The CABS rate was reduced from the peak at 8.49 per 1,000 central line days in 2013 to 2.36 per 1,000 central line days in 2016. Patients’ outcome was also improved in the aspect of death during hospitalization after CLABSI from 7 patients (23.3%) in 2013 to 1 patient (12.5%) in 2016. Bundles of care and collaborative approach are key elements for enhancing the quality of care to our patients.

Conclusion
Implementation of central line care bundle was effective in reducing CLABSI. Nurses
can play an important role in reducing the CLABSI rates through the use of evidence-based bundle of cares to ensure a safe health care environment for hospitalized oncology patients.