

Current Practices Used for the Prevention of Central Line-Associated Bloodstream Infection in Hematopoietic Stem Cell Transplant Unit

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BACKGROUND: Central Venous Catheter (CVC) are widely used in the treatment of patients with cancer, however, these patients are at increased risk of central line-associated bloodstream infections (CLABSI) by factors related to susceptibility serious medical conditions and increased handling. These infections are associated with increased morbidity and hospital costs. The CLABSI prevention was one of the actions proposed by the Institute for Healthcare Improvement (IHI) during the campaign to save 100,000 lives that later expanded to 5 million lives, spread globally and an important practice in harm reduction associated with assistance to health. In Brazil, the National Health Surveillance Agency published CLABSI outcomes indicators calculated using data reporting infections in Intensive Care Units of 942 hospitals, the incidence density ratio (x 1000-day devices) of 4.2 percentile 50 and 14.2 at 90.

HYPOTHESIS: The objective of this study is to evaluate the impact of strategies for prevention of CLABSI.

METHODS: This is a retrospective, observational study in a Hematopoietic Stem Cell Transplant (HSCT) unit with 28 beds in a general hospital the state of São Paulo. Strategies for prevention of CLABSI have been implemented between January 2013 and December 2015. To define cases of CLABSI were used diagnostic criteria established by the Centers for Disease Control and Prevention (CDC) and the incidence of CLABSI was expressed as infection number per 1,000 CVC-days.

RESULTS: Preventive measures such as hand hygiene, maximal sterile barriers during insertion, chlorhexidine skin antiseptis, use of closed infusion systems, disinfection of the connectors, patient and family education are continuously applied with a focus on patient safety. To guarantee the implementation of these actions were carried out periodic audits, ongoing training and constant supervision of the shares, in addition to the monthly critical analysis of CLABSI indicator. There was a 67% reduction of CLABSI per 1,000 CVC- day, from 2.7 in 2013 to 0.9 in 2015. We concluded that the application of emphasis on prevention strategies for the involvement and commitment of the entire multidisciplinary team, education, awareness and supervision had a significant impact in reducing the CLABSI.