



The specific aims of the study were to evaluate adherence to the intervention components and rates of Central Line Associated Bloodstream Infections (CLABSIs) over five years” Santos et al (2019).

Abstract:

**INTRODUCTION:** Central Venous Catheters (CVCs) are placed in pediatric patients that require frequent and/or long-term access for intravenous treatments and increase the risk for Central line-associated bloodstream infections (CLABSIs). The specific aims of the study were to evaluate adherence to the intervention components and rates of Central Line Associated Bloodstream Infections (CLABSIs) over five years.

**METHODS:** Implementation occurred on the acute care and hematology-oncology pediatric units of a quaternary health care setting in Southern California. Adherence rates were quantified using a CVC audit sheet and CLABSI rates were obtained quarterly before, and at year 1, 2, 3, 4, 5 of implementation.

**RESULTS:** CLABSI rates for both pediatric units decreased over the five-year period. Adherence rates were 90% to 100% on the different features of the intervention; the lowest was adherence to Patient Protective Equipment (PPE). A total of 41 incidents of hospital-acquired CLABSIs were reported the year prior to the Bug Buster Committee, which decreased steadily to 9 incidents after implementation. The quarterly CLABSI rates in the

Pediatric Acute Care ranged from 2.8 to 6.6/1,000 catheter days and in Pediatric Hematology-Oncology from 2.1 to 4.3/1,000 catheter days the year prior to implementation.

CONCLUSIONS: While adherence for staff remains high, parent/family adherence was low. We recommend including in the multi-level intervention, procedures targeting parent adherence such as patient education handouts, reviewing content on admission, placing signs on doors indicating PPE requirements, and promptly providing PPE to non-adherent family members.

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### Reference:

Santos, K.M.B., Husain, S.S., Torres, V., Huang, C.C. and Jacob, E. (2019) Multi-level intervention program - A quality improvement initiative to decrease central line-associated bloodstream infections in the pediatric acute and hematology/oncology units. *Journal of Pediatric Nursing*. August 1st. doi: 10.1016/j.pedn.2019.07.002. .

