



A centralized CLABSI prevention bundle can universalize central line care, simplify infection control, and improve quality of care to help sustain low CLABSI rates throughout the hospital” Savage et al (2018).

Abstract:

Purpose: Hospitals devote significant resources developing protocols to minimize the incidence of central line-associated bloodstream infections (CLABSIs), a source of increased patient morbidity and health care costs; however, few of these protocols, especially centralized protocols, are reported in the literature. This study characterizes the development and effectiveness of a pediatric hospital’s centralized CLABSI prevention bundle.

Design and Methods: The study was designed as a retrospective interrupted time series to quantify the effectiveness of the prevention bundle that was developed and implemented by nursing leadership in infection control, and both the neonatal and pediatric intensive care units between 2006 and 2014. The study period was subdivided into pre-, peri-, post-, and second peri-intervention periods based on the implementation status of the bundle. Segmented linear regression was used to model and compare the CLABSI rates for each intervention period overall as well as the 5 individual hospital units.

Results: The hospital’s modeled CLABSI rate during the preintervention period was 3.80 out of 1000 line days and was significantly reduced to 0.45 ( $P < 0.001$ ). Clear decreases in unit

CLABSI rates were observed and all units were below corresponding National Healthcare Safety Network CLABSI rates after the study.

Conclusions: The centralized CLABSI prevention bundle reduced and sustained low CLABSI rates overall and within each hospital unit demonstrating the success of the bundle.

Practice Implications: A centralized CLABSI prevention bundle can universalize central line care, simplify infection control, and improve quality of care to help sustain low CLABSI rates throughout the hospital.

**Full Text**

Reference:

Savage, T., Hodge, D.E., Pickard, K., Myers, P., Powell, K. and Cayce, J.M. (2018) Sustained Reduction and Prevention of Neonatal and Pediatric Central Line-Associated Bloodstream Infection Following a Nurse-Driven Quality Improvement Initiative in a Pediatric Facility. *The Journal of the Association for Vascular access*. 23(1), p.30-41.

DOI: <https://doi.org/10.1016/j.java.2017.11.002>

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