

To evaluate the ability to sustain and further reduce central line-associated bloodstream infection (CLABSI) rates in NICUs participating in a multicenter CLABSI reduction collaborative and to assess the impact of the sterile tubing change (TC) technique as an important component in CLABSI reduction” Pallotto et al (2017).

Abstract:

OBJECTIVES: To evaluate the ability to sustain and further reduce central line-associated bloodstream infection (CLABSI) rates in NICUs participating in a multicenter CLABSI reduction collaborative and to assess the impact of the sterile tubing change (TC) technique as an important component in CLABSI reduction.

METHODS: A multi-institutional quality improvement collaborative lowered CLABSI rates in level IV NICUs over a 12-month period. During the 19-month sustain phase, centers were encouraged to monitor and report compliance measures but were only required to report the primary outcome measure of the CLABSI rate. Four participating centers adopted the sterile TC technique during the sustain phase as part of a local Plan-Do-Study-Act cycle.

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RESULTS: The average aggregate baseline NICU CLABSI rate of 1.076 CLABSIs per 1000 line days was sustained for 19 months across 17 level IV NICUs from January 2013 to July 2014. Four centers transitioning from the clean to the sterile TC technique during the sustain phase had a 64% decrease in CLABSI rates from the baseline (1.59 CLABSIs per 1000 line days to 0.57 CLABSIs per 1000 line days).

CONCLUSIONS: Sustaining low CLABSI rates in a multicenter collaborative is feasible with team engagement and ongoing collaboration. With these results, we further demonstrate the positive impact of the sterile TC technique in CLABSI reduction efforts.



Reference:

Pallotto, E.K., Piazza, A.J., Smith, J.R., Grover, T.R., Chuo, J., Provost, L., Mingrone, T., Holston, M., Moran, S., Morelli, L., Zaniletti, I. and Brozanski, B. (2017) Sustaining SLUG Bug CLABSI Reduction: Does Sterile Tubing Change Technique Really Work? Pediatrics. September 26th. .

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