

Abstract Title:

Sustainability in Practice: An 11-Year Review of CLABSI Prevention Efforts in the NICU

Presenter:

Robin Koepfel
101 The City Drive
Orange CA
Phone: 714-456-6528
Email: rkoepfel@uci.edu

Author:

Robin Koepfel
Professional Title: CNS/CPNP
Organization / Affiliation: UCI Medical Center
Mailing Address:
101 The City Drive
Orange, CA 92886, US
Phone: 714-456-6528
Email: rkoepfel@uci.edu

Co Author/Co-Investigator Names/Professional Title: Cherry Uy, MD; Kathleen Quan, MSN

Introduction: Title: Sustainability in practice: An Eleven Year Review of CLABSI Prevention Efforts in the NICU Sustainability of quality improvements is receiving increased attention across settings. Few Quality Improvement (QI) reports describe factors of success beyond the initial implementation period. The purpose of this report is to review the effect of a QI project on Central Line Associated Blood Stream Infection (CLABSI) rates, and to present key strategies associated with sustained CLABSI reduction in the Neonatal Intensive Care Unit (NICU).

Methods: A single-center, CLABSI reduction QI initiative over an 11-year time span is presented. Three time periods are evaluated: baseline (2004-2005), active intervention phase (2006-2009) when multiple central line care practices were implemented, and sustainment phase (2010-2014).

Results: There was a steady decline in CLABSI rate over an 11 year time span; overall the CLABSI rate was reduced by 92% (8.67 vs 0.65/1000 line days). When comparing baseline phase and sustainment phase mean CLABSI rates (8.12 vs 0.95/1000 line days), there was an 88% reduction (P < .04).

Reductions in CLABSI events were seen during the active intervention phase where the CLABSI rate was reduced by 40% (5.23 vs 3.08/1000 line days). CLABSI rates continued to decline during the sustainment phase with a mean CLABSI rate of 0.95/1000 line days.

Conclusion: QI efforts were associated with a significant and sustained reduction in CLABSI rates over an 11-year period. Key sustainment strategies identified include use of a closed medication administration system, detailed review of events leading to a positive blood culture, regular and ongoing central line care process audits, and posting of days-between-CLABSIs.