DECREASING CLABSIS IN THE NICU THROUGH STANDARDIZATION OF CRITICAL CENTRAL LINE PROCEDURES

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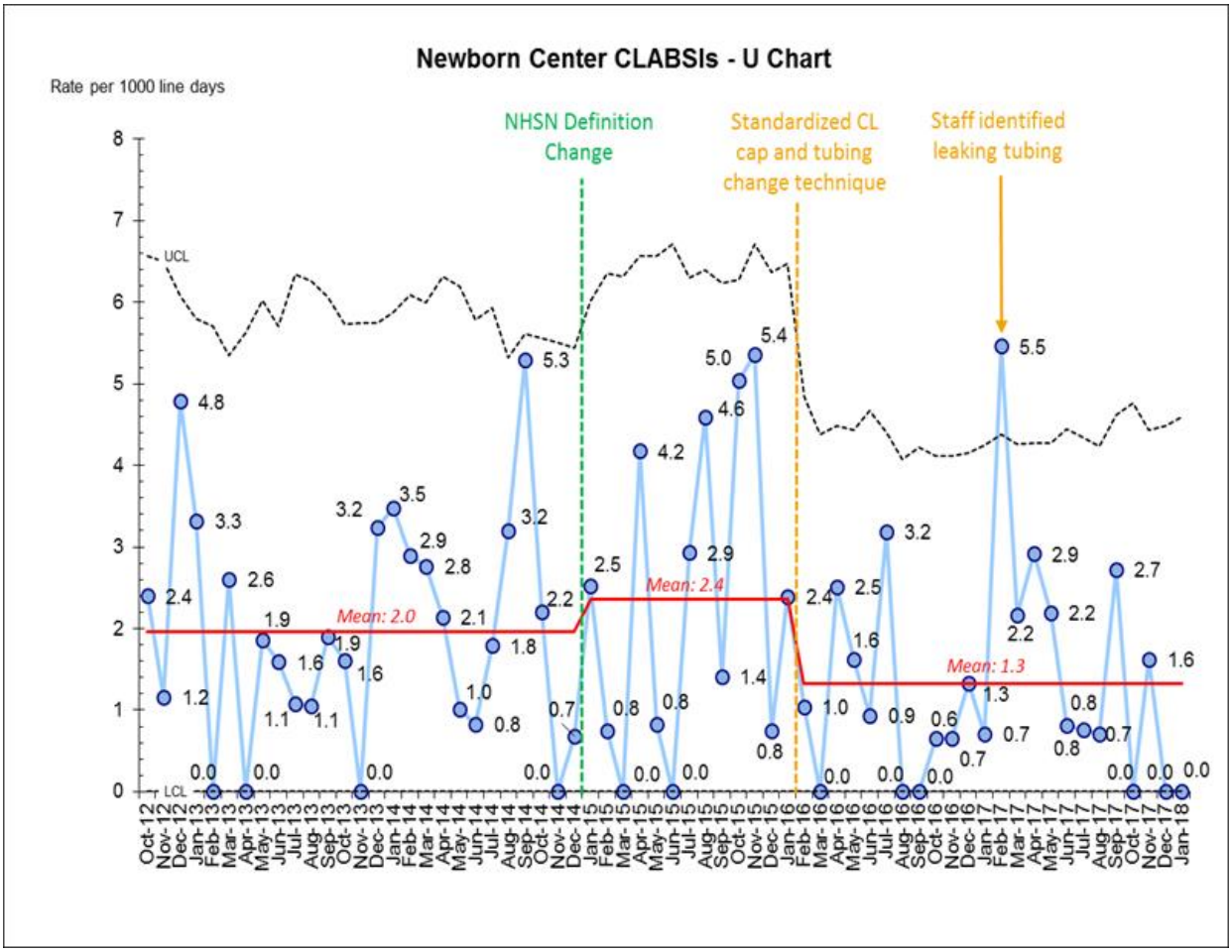
Category: Patient Safety

Background
Increased cost, extended length of stay, and risk of patient harm are associated with central line-associated blood stream infections (CLABSI) in the pediatric population.

Objectives
To understand the impact of standardized central line care on patient outcomes.

Methods
Quality improvement methodologies, including an impact-effort analysis and key driver diagram were used to identify and prioritize opportunities for improvement. Literature was reviewed by clinical experts to determine best practice. Central Line Champions, nurses with specialized training in critical central line procedures, provided instruction to bedside caregivers followed by skills validation via return demonstration. Standardized cap change, medication administration, and tubing change procedures were implemented in February 2016. To ensure compliance with standardized practice, champions conduct direct observations and perform audits of central line care.

Results
Standardization of central line care has led to a 45.8% decrease in the mean CLABSI rate from the pre-intervention period (January 2015 - January 2016) to the post-intervention period (February 2016 - January 2018).



Discussion

A large urban Neonatal Intensive Care Unit (NICU) successfully reduced CLABSIs through standardization of practice including cap and tubing change technique. Standardized central line care has demonstrated direct impact on patient outcomes.