To study the impact of a quality improvement (QI) initiative using care bundle approach on Central-line associated bloodstream infections (CLABSI) rates” Balla et al (2018).

Abstract:

OBJECTIVE: To study the impact of a quality improvement (QI) initiative using care bundle approach on Central-line associated bloodstream infections (CLABSI) rates.

METHODS: A QI team for infection control in NICU was formed in a tertiary-care neonatal intensive care unit (NICU) from June 2015 to August 2016. Baseline data were collected over first 3 months followed by the intervention period of 1 year. Measures with respect to strengthening hand hygiene and central line bundle care were implemented during the intervention period. Audits assessing the compliance to hand hygiene and CLABSI bundle protocols were used as process indicators. Multiple PDSA cycles were used to strengthen the practices of proposed interventions, documentation of data and audits of the processes during the study period.

RESULTS: The QI initiative achieved a 89% reduction in CLABSI from the baseline rate of 31.7 to 3.5 per 1000 line-days. The blood stream Infections reduced from 7.3 to 2.3 per 1000 patient-days. The overall mortality showed a reduction from 2.9% to 1.7% during the intervention period. There was a significant improvement in compliance with hand hygiene protocol and compliance with CLABSI protocols.
CONCLUSION: This study demonstrated that simple measures involving hand hygiene and strengthening of the care bundle approach through quality improvement could significantly reduce the bloodstream infections and CLABSI rates.

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CLABSI rates following the introduction of a central line bundle
Strategies to reduce central line-associated bloodstream infections
How to predict central line-associated bloodstream infections

Reference: