

“CATHETER DAY” INITIATIVE: A MULTIDISCIPLINARY STRATEGY TO ELIMINATE CLABSI IN A NEONATAL INTENSIVE CARE UNIT

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INTRODUCTION:

Central Line-Associated Bloodstream Infection (CLABSI) is a major cause of morbidity and mortality in Neonatal Intensive Care Units (NICUs) and a key indicator of patient safety and care quality.¹ In December 2022, a high-complexity NICU experienced a CLABSI rate of 6.85 after four consecutive months with zero cases, exposing gaps in clinical standardization and continuing education. In response, the “Catheter Day” initiative was implemented in January 2023 with the goal of achieving and sustaining zero CLABSI through evidence-based practices.

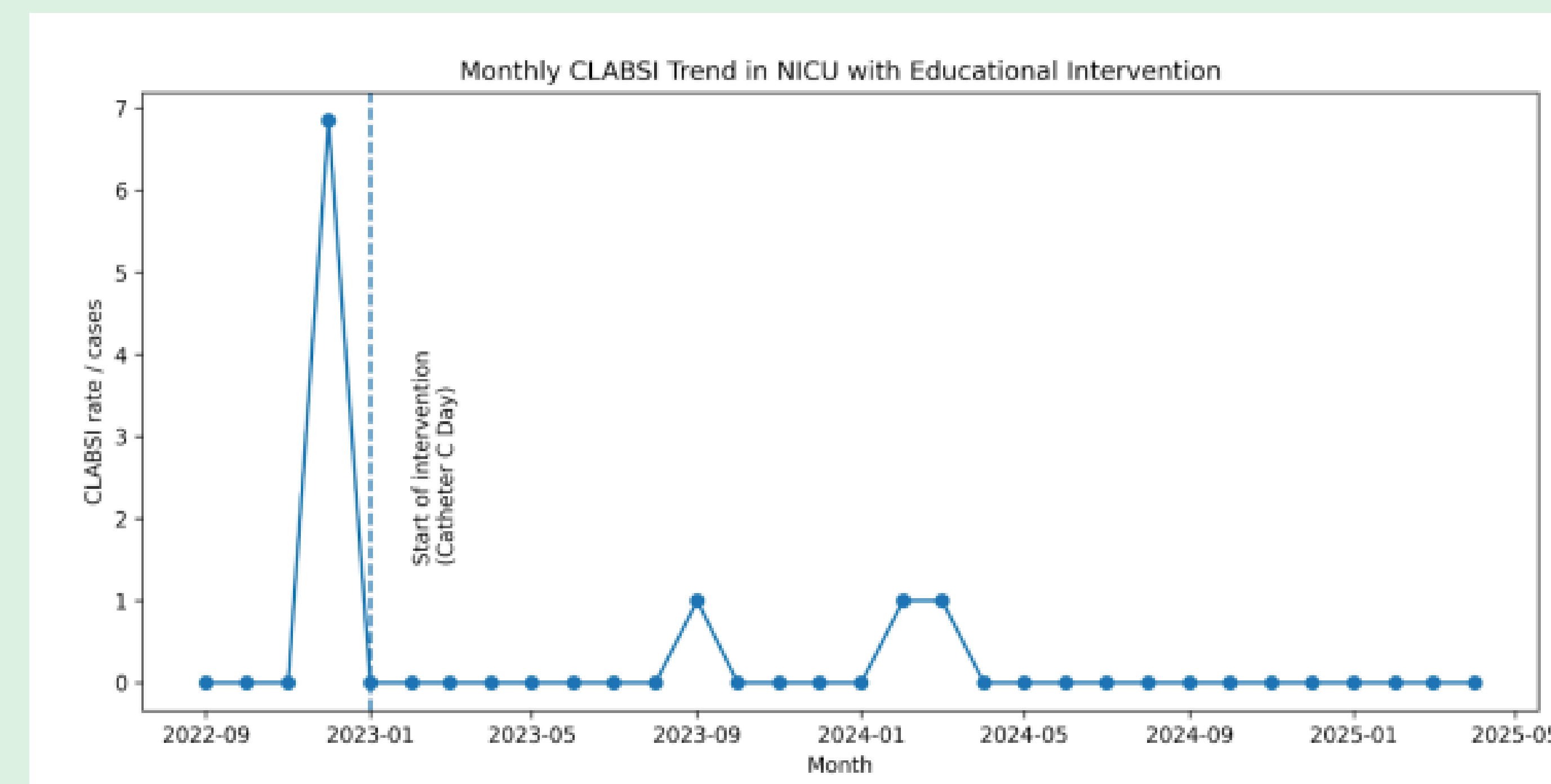
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METHODS:

This experience report describes a quality improvement initiative based on monthly, nurse-led, multidisciplinary educational sessions known as “Catheter Day.” The methodology followed international quality improvement bundles² and included realistic simulations, scientific updates, reinforcement of catheter insertion and maintenance bundles, daily surveillance of vascular devices, implementation of complication management flowcharts, and ultrasound-guided PICC insertion in selected cases. Nursing technicians actively contributed to identifying educational priorities to promote adherence at the bedside.



RESULTS:

After implementation, the unit achieved zero CLABSI cases for six consecutive months.

Although isolated cases occurred in 2023 (n=1) and early 2024 (n=2), continuous adjustments resulted in a sustained zero-infection rate from March 2024 to April 2025.

The initiative improved protocol adherence, standardized clinical practices, and strengthened the safety culture, confirming the importance of surveillance and standardized bundles in Level III NICUs.¹



CONCLUSION:

After implementation, the unit achieved zero CLABSI cases for six consecutive months. Although isolated cases occurred in 2023 (n=1) and early 2024 (n=2), continuous adjustments resulted in a sustained zero-infection rate from March 2024 to April 2025. The initiative improved protocol adherence, standardized clinical practices, and strengthened the safety culture, confirming the importance of surveillance and standardized bundles in Level III NICUs.¹

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1. Santos LM, Nunes KJ, Silva CSG, Kusahara DM, Rodrigues EC, Avelar AFM. Elaboration and validation of an algorithm for treating peripheral intravenous infiltration and overflow in children. Rev Latino-Am Enfermagem. 2021;29:e3435. doi:10.1590/1518-8345.4314.3435.
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