

**The broad objective of this study was to establish national benchmark data around rates of CLABSI in neonatal and paediatric intensive care units (NICUs and PICUs) and paediatric oncology units (ONCs)” Kouni et al (2018).**

Abstract:

**BACKGROUND:** Healthcare-associated infections (HAIs) are associated with increased morbidity and mortality and with excess costs. Central line-associated bloodstream infections (CLABSI) are the most common HAI in neonates and children.

**AIM:** The broad objective of this study was to establish national benchmark data around rates of CLABSI in neonatal and paediatric intensive care units (NICUs and PICUs) and paediatric oncology units (ONCs).

**METHODS:** Active surveillance for CLABSI was conducted from June 2016 to February 2017. A collaborative of 14 NICUs, 4 PICUs, and 6 ONCs participated in the program. Surveillance definitions of central line (CL), central line utilization (CLU) ratio, CLABSI event, and CLABSI rate were based on the Centers for Disease Control and Prevention’s 2014 National Healthcare Safety Network criteria. Medical records were assessed daily for calculating CL days, patient days, and susceptibility of isolated organisms.

**FINDINGS:** A total of 111 CLABSI episodes were recorded. The overall mean CLABSI rate was 4.41 infections per 1000 CL days, and the CLU ratio was 0.31. CLABSI rates were 6.02 in NICUs, 6.09 in PICUs, and 2.78 per 1000 CL days in ONCs. A total of 123 pathogens were isolated. The most common pathogens were Enterobacteriaceae (36%), followed by Gram-positive cocci (29%), non-fermenting Gram-negative bacteria (16%), and fungi (16%). Overall, 37% of Gram-negative pathogens were resistant to third-generation cephalosporins and 37% to carbapenems.

**CONCLUSION:** Nationally representative CLABSI rates were determined for paediatric patients. These data could be used to benchmark and serve as baseline data for the design and evaluation of infection control and antimicrobial stewardship interventions.

## Reference:

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