



The objective of this study was to analyze the impact of a multidimensional infection control approach and the use of the International Nosocomial Infection Control Consortium (INICC) Surveillance Online System on central line-associated bloodstream infection (CLABSI) rates from June 2003-April 2010” Álvarez-Moreno et al (2016).

Abstract:

BACKGROUND: The objective of this study was to analyze the impact of a multidimensional infection control approach and the use of the International Nosocomial Infection Control Consortium (INICC) Surveillance Online System on central line-associated bloodstream infection (CLABSI) rates from June 2003-April 2010.

METHODS: We conducted a prospective, before-after surveillance study of 2,564 patients hospitalized in 4 adult intensive care units (ICUs) and 424 patients in 2 pediatric ICUs of 4 hospitals in 2 cities of Colombia. During baseline, we performed outcome surveillance of CLABSI applying the Centers for Disease Control and Prevention’s National Healthcare Safety Network definitions. During intervention, we implemented the INICC multidimensional approach and the ISOS, which included a bundle of infection prevention practice interventions, education, outcome surveillance, process surveillance, feedback on CLABSI rates and consequences, and performance feedback of process surveillance. Bivariate and

multivariate regression analyses were performed using a logistic regression model to estimate the effect of the intervention on the CLABSI rate.

RESULTS: The baseline rate of 12.9 CLABSIs per 1,000 central line (CL) days, with 3,032 CL days and 39 CLABSIs, was reduced to 3.5 CLABSIs per 1,000 CL days, with 3,686 CL days and 13 CLABSIs, accounting for a 73% CLABSI rate reduction (relative risk, 0.27; 95% confidence interval, 0.14-0.52; P=.002).

CONCLUSIONS: Implementing the INICC multidimensional infection control approach for CLABSI prevention was associated with a significant reduction in the CLABSI rate of ICUs of Colombia.

Reference:

Álvarez-Moreno, C.A., Valderrama-Beltrán, S.L., Rosenthal, V.D., Mojica-Carreño, B.E., Valderrama-Márquez, I.A., Matta-Cortés, L., Gualtero-Trujillo, S.M., Rodríguez-Peña, J., Linares-Miranda, C.J., Gonzalez-Rubio, Á.P., Vega-Galvis, M.C., Riaño-Forero, I., Ariza-Ayala, B.E., García-Laverde, G., Susmann, O., Mancera-Páez, O., Olarte, N., Rendón-Campo, L.F., Astudillo, Y., Trullo-Escobar, M.D. and Orellano, P.W. (2016) Multicenter study in Colombia: Impact of a multidimensional International Nosocomial Infection Control Consortium (INICC) approach on central line-associated bloodstream infection rates. *American Journal of Infection Control*. June 14th. .

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