

to implement tailored interventions to reduce CLABSI rates in adult intensive care units (ICU)” Assis et al (2018).

Abstract:

BACKGROUND: There is a scarcity of studies exploring implementation strategies to central line-associated bloodstream infections (CLABSI) in low or middle income countries.

AIM: to implement tailored interventions to reduce CLABSI rates in adult intensive care units (ICU).

METHODS: The implementation strategy of the State Health Department was performed in São Paulo State, Brazil over two cycles. Cycle 1 (56 hospitals) was exploratory and Cycle 2 (77 hospitals) was designed to confirm the hypothesis generated by the first cycle, with 3 phases each (pre-intervention, intervention, post-intervention). Cycles included: evaluation of health care workers' (HCW) knowledge, observation of practices, and CLABSI rates monthly report. In Cycle 1, a log-normal mixed model was used to select variables significantly associated with the reduction of CLABSI. In Cycle 2, CLABSI rates were evaluated.

FINDINGS: HCWs' practices improved after intervention. In Cycle 1, reduction of CLABSI rates was more pronounced in hospitals with initial CLABSI rates higher than 7.4/1000 catheter-days ($p < 0.001$) and those that introduced the use of peripherally-inserted central catheters ($p = 0.01$). For hospitals with high CLABSI initial rates, simulation demonstrated that the rates were expected to decrease by 36% (95% CI: 9-63) no matter the type of intervention. In Cycle 2, there was an overall decrease in CLABSI rates during the intervention period; whilst the mean rate fell further post-intervention, rates at the 90th percentile actually increased.

CONCLUSIONS: the implementation strategy may have had effect on infection rates independently of the specific interventions implemented; however the sustainability of decreasing in the post-intervention remains a challenge.

Reference:

Assis, D.B., Madalosso, G., Padoveze, M.C., Lobo, R.D., Oliveira, M.S., Boszczowski, Í., Singer, J.M. and Levin, A.S. (2018) Implementation of Tailored Interventions in a Statewide Programme to Reduce Central Line-associated Blood Stream Infections. *The Journal of Hospital Infection*. May 3rd. .

doi: [10.1016/j.jhin.2018.04.020](https://doi.org/10.1016/j.jhin.2018.04.020).