

CATHETER-RELATED BLOODSTREAM INFECTION RATES DECREASE TO ZERO IN THE ICU AFTER IMPLEMENTING A CLOSED LUER ACCESS SPLIT-SEPTUM DEVICE

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Background: The purpose of this study was to evaluate the effectiveness of a closed luer access, split-septum device for the reduction of central venous catheter-associated bloodstream infections in an Adult Medical-ICU population. The closed luer access/split-septum device replaced a positive-pressure mechanical valve (PPMV).

Methods: A retrospective review of infection rates ten months prior to implementation were measured against infection rates up to eight months after implementation of the study intervention. Rates of infection per 1,000 catheter-days were measured at monthly intervals, according to the guidelines of the National Healthcare Safety Network (NHSN). The current analysis includes 18 months of data and 1,405 catheter-days.

Results: The median rate of catheter-related bloodstream infection per 1,000 catheter-days decreased from 3.045 infections at baseline to 0 at 3, 6 and 8 months after implementation of the study intervention. The mean rate per 1,000 catheter-days decreased from 3.148 at baseline to 0 at eight months of follow-up.

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Conclusion:

Removing the positive-pressure mechanical valve (PPMV) and replacing it with a closed luer access, split-septum device resulted in a significant decrease in infection rates from baseline.

The closed luer access, split-septum device significantly reduces the rate of (CVC)-associated bloodstream infections in an Adult Medical-ICU population.

CR-BSI Rate: ICU

