

Effect of Education and Performance Feedback to Eliminate Central Line Associated Blood Stream Infections (CLABSI) on an Internal Medicine Unit

Jessica Malm MPH, CIC, Mayssa Saleh BSN, RN, Pam Johnson BSN, RN-BC, Nicole Kirk BSN, RN, Eman Chami MHA, CIC
Henry Ford Hospital, Henry Ford Health, Detroit, MI

Abstract

We evaluated the outcome of targeted education and timely performance feedback to eliminate central line associated blood stream infections (CLABSI). In 2022, an internal medicine unit reported 5 CLABSIs after previously reporting no cases in 2021. The root cause analysis of all five cases identified an opportunity for improvement in compliance with central line preventative maintenance measures.

This study was conducted on a single internal medicine unit from August to September 2022 and separated into two phases. During Phase 1, a central line maintenance knowledge assessment was given to the unit nursing staff. During Phase 2, the Infection Prevention Specialist (IPS) and Nursing Leaders educated the unit nursing staff on facility policy outlining central line preventative maintenance measures. Next, the assigned nurse would join the Infection Control Specialist and a Nursing Leader during patient rounds to assess each central line. If gaps were identified, they were addressed immediately. To assess effectiveness of this study, CLABSI rates were tracked over the next 12 calendar months (October 2022-October 2023). See table 1.

Evaluation of the central line knowledge assessment found inconsistencies in practice in caring for peripherally inserted central catheter and hemodialysis catheters. No CLABSI cases were reported from October 2022 – October 2023.

Objectives

- Identify opportunities of improvement in central line maintenance practices
- Eliminate CLABSI cases identified on the Internal Medicine unit

Study Design

- Prospective interventional study

Results

Total # of CLABSI Cases & CLABSI Rate on an Internal Medicine Unit 2021-2024



Table 1: No CLABSI cases were identified in 2021 and five CLABSIs were identified in 2022 on an internal medicine unit prompting immediate RCA review and intervention. In September 2022, a knowledge assessment was completed by unit-based staff and device audits were completed with the assigned nurse. Any gaps in practice were identified and addressed. No additional CLABSIs were identified in 2023 through March 2024.

Disclosures

I have no financial interests or relationships to disclose.

Conclusion

This study focused on targeted education and timely performance feedback on a single internal medicine unit which resulted in elimination of CLABSI for 12 calendar months.

Targeted education topics were based on outcome data from extensive CLABSI root cause analysis review, device audit data review, and a line maintenance questionnaire given to nursing staff. Inconsistencies in central line maintenance practices were identified for peripherally inserted central catheters and hemodialysis catheters.

To reinforce central line maintenance practices and policies, the assigned nurse joined the IPS and Nursing Leader during established device audits. The consistent positive reinforcement and encouragement of a learning environment helped the unit nursing staff understand the rationale for central line maintenance care and address any additional concerns or questions in the moment.

Expansion of this project into another internal medicine unit (Nephrology/Dialysis) is ongoing.

References

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