



Presentation Type:

Poster Presentation

Subject Category: CLABSI

Development of a CLABSI Preventability Index to Target Improvement Efforts

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Background: Central Line-Associated Bloodstream Infections (CLABSI) are multifactorial, making trends difficult to identify. CLABSI can occur from the time of insertion to delayed removals beyond the time central access was indicated. The objective of creating a CLABSI Preventability Index tool was to enable strategic quality improvement work. **Methods:** A preventability index tool was created with stakeholder input and was categorized into four categories (see Table 1): Indication for Line, Care and Maintenance and Line Access, Diagnostic Stewardship, and Specimen Collection. Each category had one or more questions prompting users to assign points for each preventable action. Scores range from 0 through 15, with the higher score indicating more prevention opportunities. (See table 2). **Results:** During the 2024 calendar year, there were 25 Adult CMS CLABSIs. The preventability index was applied to each case. There was 1 'extremely preventable' case, 2 'very preventable' cases, 6 'preventable' cases and 16 'not preventable' cases. In the 3 cases scoring very preventable or extremely preventable, the category "indication for line" was consistently scored high. Two of the 3 cases had preventable actions from a care and maintenance standpoint, 2 cases scored for diagnostic stewardship category and all 3 cases scored in the specimen collection category. In the 22 cases scoring 6 or lower, 0 scored in the indication for line category, 16 scored in the care and maintenance category, 11 scored in diagnostic stewardship and 4 scored in specimen collection. **Conclusion:** The preventability index objectively identifies the highly preventable CLABSIs in order to target high-priority actions to prevent future cases. Based on this tool, the use of central lines when not indicated causes the highest preventability scores, but care and maintenance activities score the most frequently.

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Table 1: Preventability Index Scoring Criteria

Category	Question	Point Attribution
Indication for Line	Was the line appropriate at the time of the CLABSI? If no, was the line high risk?	0 pts - (Yes, line needed) 5 pts - (No, line not needed) 7 pts - (No, high risk line not needed)
	CHG Treatment: Was this completed every day for the last 3 days prior to the event?	0 pts - (Yes, completed 3/3 days) 1 pt - (No, not completed 3/3 days)
Care and Maintenance and Line Access	Tubing Changes: Was the tubing change overdue?	0 pts - (No, tubing changes up to date) 1 pt - (Yes, tubing changes needed)
	Dressing Changes: Was the dressing change overdue?	0 pts - (No, dressing changes up to date) 1 pt - (Yes, dressing changes needed)
	Line Access: Was there concern that the line was accessed too frequently based on post-CLABSI survey?	0 pts - (No concerns with line access) 1 pt - (Yes, line was accessed too frequently)
	Were cultures drawn for low-risk bacteremia?	0 pts - (No) 2 pts - (Yes)
Diagnostic Stewardship	Were blood cultures repeated without indication?	0 pts - (No) 2 pts - (Yes)
	Does the blood culture order match blood culture collection technique?	0 pts - (Yes, blood culture order and collection technique match) 1 pt - (No, blood culture order and collection technique do not match)
Specimen Collection	Are there concerns related to collection technique? (i.e. potential contaminant, one site used for multiple cultures, etc)	0 pts - (No collection technique concerns) 1 pt - (Yes, there was collection technique concerns)
Total Score		15

Table 2: Preventability Index Total Score Ranking

Category	PI Total Score
Not preventable	0-3
Preventable	4-6
Very preventable	7-10
Extremely preventable	11-15

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The Impact of CHG Bathing on Healthcare Associated Infections Across a Rural Hospital System

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Background: We aimed to examine the impact of daily bathing with chlorhexidine gluconate (CHG) on central line associated bloodstream infections (CLABSIs), catheter associated urinary tract infections (CAUTIs), and bloodstream infections with methicillin-resistant *Staphylococcus aureus* (LabID MRSA) across a large, rural healthcare system. This healthcare system encompasses 8 large community hospitals, one academic hospital, and 11 hospitals with 50 or fewer beds. Starting in August 2023, all facilities were required to adopt daily CHG bathing for patients with central lines and/or in intensive care units. Some facilities also chose to adopt CHG daily bathing for patients with Foley catheters. **Methods:** We analyzed the hospital-wide monthly incidence of select healthcare associated infections (HAIs) in the year before and after implementation of CHG bathing across a large, decentralized, rural healthcare system. We conducted negative binomial regressions to examine the difference in HAIs before/after implementation of CHG bathing, and we used the National Healthcare Safety Network's (NHSN) predicted numbers of HAIs to adjust for confounding among hospitals. **Results:** After adjusting for each hospital's predicted number of infections, we saw a 40.1% decrease