

Who's Bugging Your Line?

A Quality Improvement Plan to Reduce Central Line Associated Bloodstream Infections (CLABSIs)



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ABSTRACT

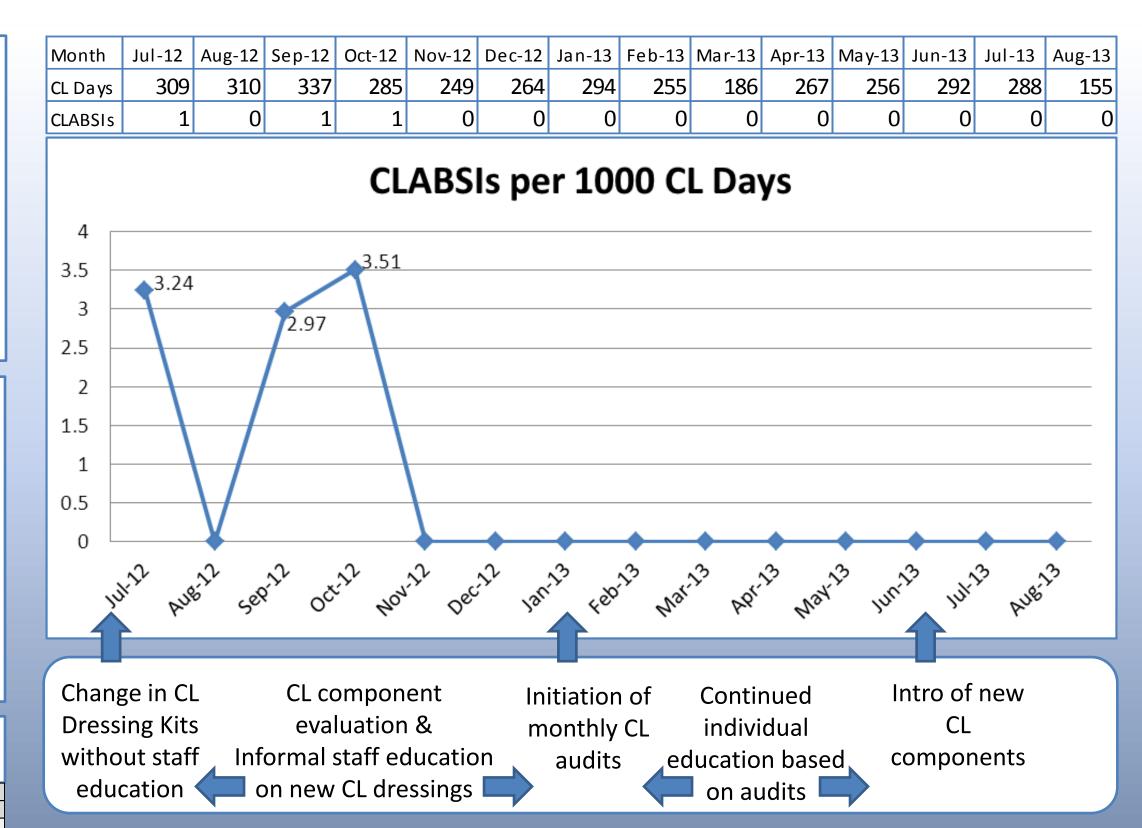
Central lines (CL) are a convenient means for drawing labs and giving IV medications, but they may also be a convenient means for the entry of microorganisms into the body, leading to central line acquired blood stream infections (CLABSIs). CLABSIs result in extended patient stays, thousands of deaths, and billions of dollars in added costs to the U.S. healthcare system each year (CDC, 2012). Through surveillance Baylor Institute for Rehabilitation (BIR) recognized an opportunity to reduce the number of CLABSIs.

METHOD

To begin the team looked at when the infections were occurring. Through medical record audits and chart reviews the team found that the infections were occurring in patients who had lines that were present on admission. The team also created a monthly central line audit tool which helped in identifying three areas of risk that may be contributing to the occurrence of CLABSIs: central line maintenance practices, central line components and parts, and general staff education on central lines and intravenous infusions via central lines.

CL AUDIT TOOL

	_												
Date:													
Room #:													
	YES	NO	N/A	COMMENTS:									
Date CVC inserted documented? (If placed prior to													
arrival, documented on initial nursing													
assessment)													
Daily documentation of line concurs with what is													
observed? (i.e. 1 line observed, no documentation=													
incorrect)													
Insertion site correctly documented? (i.e. femoral													
is documented, but IJ is present= incorrect)													
Line necessity verified?													
Date Dressing Changed documented?													
Date Caps Changed documented?													
Date Written on Dressing?													
Dressing changed within appropriate time frame?													
Caps changed within appropriate time frame?													
Dressing in good condition?													
Biopatch or CHG dressing in use? placed													
appropriately?													
Tubing dated?													
Tubing dates appropriate (wihtin 24 hrs for intermittent)?													
Hubs clear/Flushed properly, without residual													
blood or fluid?													
Ends of tubing not looped together exposed?													
If line accessed during observation- hand hygiene													
performed?													
If line accessed during observation- "Scrub the													
Hub" observed?													
Patient Education documented													
TOTAL													
OVERALL SCORE:													
OVERALE SCORE.													



AUDIT RESULTS

The 5 highest ranking items

- 1. Date CL inserted documented (If POA, documented on initial RN assessment)?
- 2. Date dressing changed documented?
- 3. Dressing changed within appropriate time frame?
- 4. Line necessity verified?
- 5. Insertion site correctly documented?

The 5 lowest ranking items

- 1. Caps changed within appropriate time frame?
- 2. Patient education documented?
- 3. Ends of tubing not looped together or exposed?
- I. Tubing dated?
- 5. Tubing dates appropriate (24 hours for intermittent)?

CL COMPONENT CHANGES

PAST

CURRENT





Positive displacement → Neutral displacement needleless connector needleless connector





CHG Foam Disk → CHG gel w/transparent dressing







Looping IV back into itself → Sterile tip cap applied after OR Capping with flush cap each disconnect

EDUCATION OUTLINE

Overview

Documentation, CL Education: benefits & risks, Reporting CLABSIs, Alternatives to CLs

Back to Basics

Types of lines: peripheral vs. central, Anatomy

IV Infusions

Continuous vs. Intermittent, Labeling, Capping, Scrub the hub

Dressing Changes

Proper application & removal of CL dressing, Cap and dressing change frequency, Sterile procedure

Daily Maintenance

Physical assessment, Assessment of line necessity, Flushing

REFERENCE

Centers for Disease Control and Prevention (CDC) (2012). Central line associated bloodstream infection (CLABSI). Retrieved from http://www.cdc.gov/HAI/bsi/bsi.html