

# Successful CLABSI Reduction Strategies

Marie W. Ayers RN, CIC, UF Health CLABSI Team\*, J. Glenn Morris, Jr., MD, MPH&TM, Sam Borgert, PharmD, Dawn Watkins, MBA



## BACKGROUND

Central Line Associated Blood Stream Infections (CLABSI) are a leading cause of increased morbidity and mortality in hospitalized patients.

The most recent literature recommends the use of a connector with neutral displacement and a flat swab-able septum surface with a straight fluid pathway. Previously, a split septum connector that required additional devices to access the connector was used. The access device could be left open to air raising the risk of contamination. Also, connectors with non-neutral displacement are associated with increased risk of catheter clotting and bloodstream infections.

When a catheter is clotted the staff may decide to inject the line with alteplase to attempt the salvage of the line. Measuring the number of patients receiving alteplase may assist in determining the effectiveness of a technologically improved neutral displacement connector.

The organization was experiencing an increase in the house wide CLABSI rate thus the need for evaluation of products and processes to protect patients.

## PURPOSE and BENCHMARK

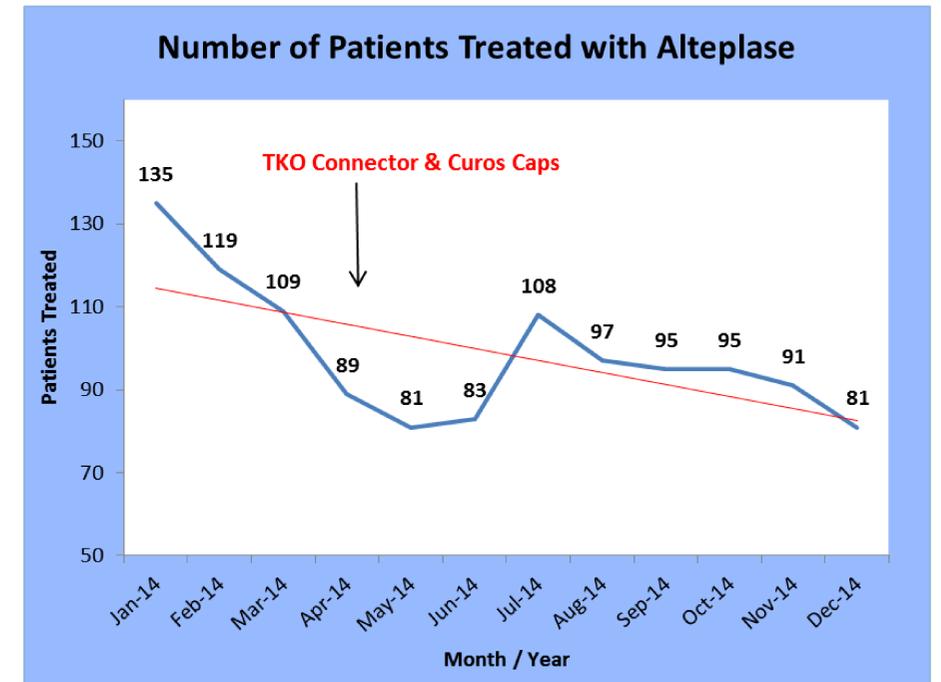
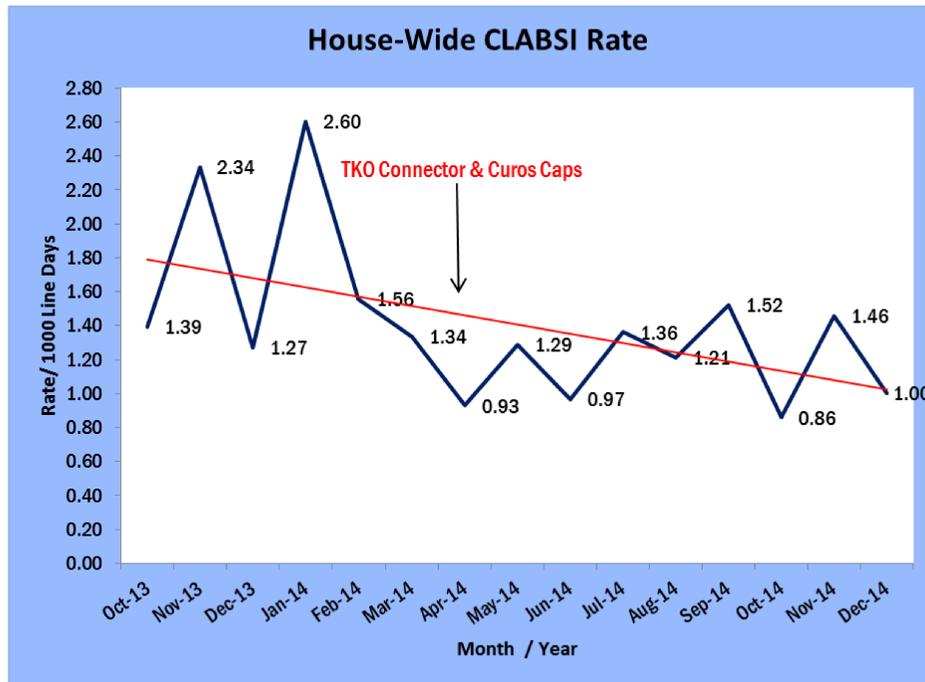
- Reduce the incidence of CLABSI and the house wide CLABSI rate
- Reduce use of an anti-clotting agents (alteplase) as a marker of line occlusion
- The CLABSI rates by unit were favorable as reported to NHSN but the goal of the Infection Prevention and Control Department and the organization is zero.

## METHODS

1. IV connectors that met current recommended criteria were evaluated
2. CLABSI Reduction Team selected the Nexus TKO connector
3. This team evaluated and selected the Curoc alcohol cap to provide an alcohol and physical barrier to protect all connectors and Y-sites.



## RESULTS



## CONCLUSIONS

1. CLABSI rates and alteplase use decreased after institution of our two interventions.
2. There was reduced harm to patients caused by infection and clotted lines after these measures were introduced.
3. The cost avoidance per CLABSI is represented by the number of CLABSI's in 2013 compared to the number in 2014. The attributable cost per infection is \$3,000, the cost avoidance was measured at \$48,000 dollars.