Improving Patient Quality Outcomes with Staff Education on CLABSI Prevention
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PROBLEM/BACKGROUND
Central line associated blood stream infections (CLABSIs) in hospitalized patients lead to increased morbidity, length of stay, mortality and hospital cost. The cardiac telemetry unit at Alamance Regional Medical Center sustained infection rates for three consecutive years. The goal of this project was to evaluate the rate of CLABSIs on the unit after implementation of an evidence-based education plan for staff nurses. A literature review was conducted for benchmarking purposes. Research revealed central line bloodstream infections (CLABSIs) were preventable when evidence-based practices were followed.

OBJECTIVES/AIMS
The goal of this project was to reduce the rate of CLABSIs on the unit by implementation of an action plan with strategies aimed at nurse education. The approach included:
• Determine nursing knowledge gaps on central line care and maintenance.
• Provide educational interventions to nurses using evidence based practices.
• Measure the effects of education on CLABSI rates.

METHODS
Infection Control Department-confirmed CLABSIs were the primary unit of measure. The unit CLABSI champion used root cause analysis to identify gaps and barriers with each confirmed CLABSI. The Champion collaborated with leadership and qualified observers (QOs) to improve staff compliance to established central line care protocols. A multifaceted approach to education was then established which included:
• Anonymous observation of proper hand hygiene.
• Use of chlorhexidine wipes for port scrubbing.
• QOs evaluated nurses with one to one direct observation or return demonstration on line care simulated during yearly skills fair.
• Champion conducted weekly audits to assess central line care and maintenance.

RESULTS/OUTCOMES
All fulltime and part-time nurses attended 1 of 3 education sessions. The unit initially maintained CLABSI rates without an increase. With the continuation of implemented strategies, the ultimate target of zero CLABSI has maintained since February 2017.

CONCLUSIONS/DISCUSSION
Following implementation of a persistent education plan, the unit has observed 598 days CLABSI free. This intervention shows that education on prevention measures improve patient quality outcomes and reduce cost.

REFERENCES
• Parra, P, Menarguez, MC, et al. 2010. A simple educational intervention to decrease incidence of central line associated bloodstream infection (CLABSI) in intensive care units with low baseline incidence of CLABSI. Infect Control Hosp Epidemiol, 31(9), 964-967.

NURSING IMPLICATIONS
CLABSIs during hospitalization can be prevented. Repetitive education on evidence-based interventions contributed to a significant reduction in rates of CLABSI. Emphasis was placed on staff education regarding identified gaps and barriers that were noted during root cause analysis and the importance of CLABSI prevention.

Unit staff worked together and drove practice improvements at the bedside to decrease CLABSI while providing the highest quality patient care. This has been a team effort, requiring patience and understanding in order to achieve success.

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