Evidence-Based Protocol for Nursing Care of Central Venous Catheters
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Problem: Bloodstream infections (BSIs) are associated with central venous catheters and are costly in terms of monetary expenditures and patient outcomes. BSIs cause increased length of stay, higher morbidity and mortality rates, and increased pain and suffering.

Evidence: Research indicates that proper management of central venous catheters decreases the risk of BSIs and therefore decreases overall cost to all stakeholders.

Implementation of an evidence-based protocol, with a focus on hand hygiene, for management of central venous catheters is imperative to prevent BSIs and maintain patient safety.

Strategy: After evaluating the literature on current evidence-based treatment guidelines, a protocol was chosen that concentrated on hand hygiene and was relevant to the care of patients with central lines.

Practice Change: The ICCU unit shared governance team developed and implemented a pilot protocol that included a hand hygiene awareness campaign as well as special posted alerts and immediate equipment availability for those patients with central lines.

Evaluation: BSI rates were monitored including pre and post intervention. Nurse response and participation as well as cost effectiveness of this protocol implementation were observed.

Results: BSI rates were measured by central line per 1000 patient days by infection prevention using the CDC guidelines. Baseline data before the change was an average of 2.7 BSIs per 1000 patient days. Since the implementation of the protocol, over a 6 month period, the BSI rate has been 0 per 1000 patient days. Hand hygiene observations have also increased for all healthcare practitioners.

Recommendations: The use of an evidence-based, nursing-focused protocol for care of a central line is a valuable tool to aid in the prevention of BSIs in patients with central venous catheters. The evidence based protocol is currently being initiated in a second unit with elevated BSI rates and a high risk patient population to further evaluate the effectiveness.

Lessons Learned: Staff ownership and solutions for unit based problems lead to success of interventions and improve patient outcomes.

Bibliography:


