HOT SERVICES: AN INPATIENT AND OUTPATIENT APPROACH TO PREVENTING CENTRAL LINE INFECTIONS

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Background/Significance: Central line-associated bloodstream infections (CLA-BSI) are a significant cause of morbidity and mortality in pediatric patients being treated for cancer. Ten to twenty percent of tunneled catheters become infected in children receiving chemotherapy for malignancy. There are specific implications for patients with oncologic disease process or bone marrow transplant with the unique challenges of long term lines utilized in the inpatient, outpatient, and home settings. In January 2013, Children’s Hospital of Wisconsin implemented a dedicated interdisciplinary team focused on the prevention of CLA-BSI in the hematology, oncology, and bone marrow transplant patients.

Purpose: In alignment with other hospital patient safety initiatives, the aim of the team is to eliminate all CLA-BSI by December 2014.

Conceptual Framework: Utilizing the champion model, staff nurses were identified as advocates in both the inpatient and outpatient settings. From there, champions and team members were in charge of increasing awareness of maintenance bundle elements, practicing those bundle elements with high reliability across the continuum, and peer to peer nursing competency verification of central venous line (CVL) dressing changes to minimize variations in practice.

Setting and Sample: All hematology, oncology, and bone marrow transplant patients, and inpatient and outpatient nurses at a free standing, academic Children’s Hospital located in the Midwest.

Methods: An interdisciplinary team comprised of bedside, central access, infection control, and advanced practice nurses, physicians, and quality improvement specialists implemented improvement strategies by utilizing the champion method. The identification and mitigation of patient care challenges specific to hematology and oncology patients, partnering with families, and reviewing all infections with a root cause analysis tool were key strategies.

Results: The champion model approach to reducing central line infections can be a successful method to influencing and changing nursing practice with patient outcome improvement. The increased focus on central line maintenance care led to a decrease in the number of hematology, oncology, and bone marrow transplant patients getting central line infections.

Implications: While there was an improvement in the CLA-BSI rate for 2013, the aim of zero infections remains a goal for 2014. The team continues to implement a multitude of interventions with next steps being a “Scrub the Hub” campaign with increased family and patient participation, CVL-focused nursing input during interdisciplinary team rounds, home care provider collaboration and alignment of maintenance bundle practices, and parent engagement and education to empower families to advocate for their child’s line care.