Oncology patients require vigilance to prevent life-threatening infections. The need to reduce central line-associated bloodstream infections (CLABSI) is documented widely (Whited, A. & Lowe, J., 2013). An opportunity to improve quality and safety was identified in an acute hematology/oncology population in an academic setting when CLABSI rates rose. The Clinical Nurse Leader microsystem assessment process was utilized to address this quality and safety concern.

**Evidence-Based Practice Inquiry**

Review of 5P’s was completed with audits:

1. Purpose
2. Patient
3. Professionals
4. Care Processes
5. Patterns

**Aim**

1. Assess the microsystem
2. Analyze the gap
3. Standardize process
4. Implement the evidence in the acute hematology/oncology patient care setting
5. Reduce CLABSI rate

**Methods**

A systems gap assessment was recommended, performed and analyzed.

A knowledge deficit regarding existing policy was identified.

Educational sessions addressed this gap.

An educational intervention was proposed, implemented and evaluated.

**Intervention**

Nurses in the Adult Hematology/Oncology (AHO), a 29 bed unit, and Adult Stem Cell Transplantation (ASCT), an eight bed unit, implemented an intervention to reduce CLABSI rates.

Four steps included:

1) Education regarding policy and process.
2) Standardized approach to central venous catheter (CVC) maintenance.
3) Practice audits three times per week on all patients.
4) Immediate peer feedback.

Nurses completed CVC education and collaborated with the medical team to address appropriateness of CVCs.

CLABSI nursing champions were identified to support education and interdisciplinary collaboration.

Standardization of process was put into place.

**Outcome Data**

Reduction in CLABSI rates was demonstrated by implementing CL insertion and maintenance “bundle” approach (Centers for Disease Control and Prevention, 2011). Prior to implementation, CLABSI rates were 4.85 (AHO) and 3.21 (ASCT) times the National Healthcare Safety Network (NHSN) Mean.

Post intervention, rates decreased to 1.15 times NHSN Mean within one quarter. Both units reached over 185 preventable CLABSI free days.

The CLABSI rate for AHO in October-December 2012 measured 6.79 (NHSN Mean 1.40) and measured 7.71 for ASCT (NHSN Mean 2.40).

In April – June the AHO rate measured 1.62 and measured 0 for ASCT.

Findings post-intervention included:
1) reduced practice confusion
2) increased compliance of 98% with best practices
3) no breaks in sterility
4) increased policy knowledge

**Conclusions**

Findings are consistent with recommendations for reducing CLABSI in non-ICU setting.

Pre and post data indicate education and process standardization reduced CLABSI incidence and addressed a quality and safety gap for health systems.

**References**


(Centers for Disease Control and Prevention, 2011).