Developing a Central Line-Associated Bloodstream Infection (CLABSI) Prevention Team to Model Best Practice and Improve Outcomes
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**Problem:** Central venous catheters (CVCs) are frequently used in hospitalized patients; they carry associated risks, most common are bloodstream infections. We initiated an infection prevention team to provide a structured, strategic framework for patient safety and quality improvement.

**Evidence:** According to the Centers for Disease Control, up to 250,000 hospital-associated catheter related bloodstream infections occur annually in the United States. CVCs are the most common cause of nosocomial bloodstream infections, an estimated 4000 patients in the nation die annually. Nosocomial bloodstream infections prolong hospitalization by a mean of seven days with an estimated cost of $29,000 (IHI, 2008). The purpose of this quality improvement initiative was to develop a multidisciplinary team to implement the National Patient Safety Goal elements of performance to prevent CLABSI by 2010.

**Strategy:** This comprehensive, unit-based safety program to improve teamwork between physicians and nurses includes five steps that are both qualitative and quantitative: educating staff on the science of safety, identifying defects in care, assigning an physician champion and executive as part of the CLABSI prevention team, learning from one defect per month, and working to improve teamwork and safety culture using tools we provide.

**Practice Change:** Interventions implemented to reduce CLABSI included: educating staff on evidence-based practices to reduce CLABSI, implementing the Central Line Bundle in conjunction with a checklist to ensure compliance with insertion practices. Other interventions include: collecting unit-level data using standardized definitions, providing feedback on infection rates at the unit-level, implementing a monthly team checklist to assess overall progress of project, coordinating and hosting monthly communication with teams, and physician participation in project meetings.

**Evaluation:** Audits of checklists as well as line infection rate calculations were completed monthly.

**Results:** CLABSI is showing improvement, the house wide numbers are significantly down.

**Recommendations:** There is ongoing introduction of strategies to create the change that will eventually produce improvement.

**Lessons Learned:** Continued team effort and systems improvements are warranted to improve outcomes.
Bibliography

