



# Reducing Central Line–Associated Bloodstream Infections on Inpatient Oncology Units Using Peer Review

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The purpose of this article is to describe a peer-to-peer program and the outcomes of interventions to reduce the incidence of central line–associated bloodstream infections in patients in bone marrow transplantation, medical, and surgical oncology units. The article reviews the process and describes tools used to achieve success in a Magnet®-designated academic medical center.

## At a Glance

- A team approach and peer-to-peer process can help reduce the rate of central line–associated bloodstream infections (CLABSI) in the oncology setting.
- Staff education is vital when introducing new techniques to reduce CLABSI.
- Using a checklist can provide staff with specific step-by-step processes to ensure safety when caring for patients with central line access.

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Opportunities for improvement continually arise at healthcare institutions. In the authors' institution, a specific focus was placed on reducing central line–associated bloodstream infection (CLABSI) rates within the oncology service. Meeting quality measures in an academic medical center can be challenging. However, a multidisciplinary team approach to achieve specific goals, such as the reduction of hospital-acquired infections, have been successful. Healthcare-related infections are largely preventable and result in an estimated 99,000 deaths per year (Kovner & Knickman, 2011). Based on Centers for Disease Control and Prevention ([CDC],

2011) statistics, about 12,400 incidences of CLABSI occurred in hospital settings in 2011. The cost for a single incident of CLABSI ranges from \$30,000–\$56,000, which includes the cost of pharmaceuticals, catheter changes, laboratory tests, and an additional day in the intensive care unit (CDC, 2011). In addition, a patient's length of stay is extended by 5–20 days (Crnich, 2010). The purpose of this article is to describe one institution's efforts to reduce CLABSI rates in patients with cancer and sustain the achieved reduction. Through a change in practice, the authors' institution has seen increased savings related to the sustained decline of CLABSI rates.

In January 2011, the oncology nursing leadership at the Robert Wood Johnson University Hospital Oncology Service took notice of the rising CLABSI rate in their setting. The oncology service CLABSI rate was 6.01 infections per 1,000 patient days compared to the overall hospital rate of 2 infections per 1,000 patient days in the general patient population. The oncology nursing leadership (made up of nursing directors, clinical nurse specialists, and an assistant vice president for nursing) set out to develop a strategic plan to reduce these rates and enlisted the help of the Unit Based Practice Council (UBPC) (made up of staff nurses who make shared decisions with the nursing leadership) on the surgical oncology, medical oncology, and bone marrow transplantation units (BMTU).

## Improvement Approach

Staff nurses from each unit, along with each unit's performance improvement (PI) analyst, director, and clinical nurse educator, participated in weekly meetings for one month to review the literature for best practices and develop strategies and interventions to reduce the CLABSI rate. The task force continued to meet weekly for six additional months to evaluate the effectiveness of the interventions that were implemented and set a goal to reduce CLABSI by 5% in 12 months. Each infection that occurred was reviewed in depth, as was information about the affected patients and the nursing practice. The task force developed a plan that included the analysis of standards of care related to central line insertion and maintenance. The group agreed that a peer review process to examine practice would be critical