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News & Information for the  
UVA Medical Center Community

## Reduction in CA-BSI Rates Earns Grant



Debra Stergios, RN; Laura Lee, MD; Catherine Davis, RN; Tausha Grim, Assistant Nurse Manager, PICU; and Nancy Addison, RN, were part of an interdisciplinary team who worked to decrease blood stream infections.

**Part of having superlative care means that we follow best practices for patient safety and quality. One way is through the care of central venous lines.**

The Pediatric Catheter-Associated Blood Stream Infection (CA-BSI) team recently received the Charles L. Brown Award for their work to reduce the rate of CA-BSI in the pediatric units.

“CA-BSIs increase the risk of mortality and length of stay, which are not good for the patient,” says **Laura Lee**, MD, PICU.

In fact, Lee says that infections account for 12 percent of attributable mortalities, cost the organization \$35,000 per infection and increase the length of stay by at least a two to three weeks in both the PICU and the hospital. Also, statistically speaking, one in eight children with a CA-BSI will die as a result of the infection. This is a serious issue.

## Exhibit SE11.g

The CA-BSI team implemented two best practice bundles, one for insertion of the catheter and one for the maintenance. By following evidence-based best practices, increasing awareness and auditing practices, the rates of CA-BSI decreased from 3.9 infections per 1,000 line days before intervention, to 1.9 infections per 1,000 line days after intervention.

“Our goal is to come down even further in our rates. We want to get rid of infections and improve care for our kids,” says Lee.

Lee also points out that staff started utilizing other best practices at the same time. One critical change was changing the way medications are delivered to patients. In the past, staff had to disconnect the line, push the medication and then reconnect the line. Now, the medication is administered by pushing a button, eliminating additional access to the line. This decreases the risk of infection.

The CA-BSI team consisted of staff from the PICU, Acute Care Pediatrics, KCRC, Department of Pediatrics, Department of Anesthesiology, Infection Prevention and Control and Quality and Performance Improvement. They plan to use the \$10,000 grant to further their work and education with catheter-associated infections.

When we focus on quality and patient safety issues such as CA-BSI and catheter-associated urinary tract infections, we are working toward our goal of superlative quality. It takes everyone’s efforts to make sure we follow evidence-based best practices.



### **2012 Charles L. Brown Award**

*November 28, 2012*

This year’s winner for excellence in patient care goes to a team from across the units that took a collaborative approach to successfully reduce catheter-associated bloodstream infections among inpatient pediatric patients. The team met monthly to review all the patients who had developed bloodstream infections; analyzed data and studied trends for each unit, followed by discussions that led to implementing new strategies to reduce infections. Some of these included:

- Implementation of a best practice central line maintenance bundle in PICU, Acute Care Pediatrics and KCRC
- Initiated peer and independent audits focused on central line maintenance

## Exhibit SE11.g

- In depth review and evaluation of central line placement on all units to ensure best practice
- Extensive education for all clinicians throughout the Medical Center who are for pediatric patients.

Congratulations to the team—representing the Pediatric Intensive Care Unit, Acute Care Pediatrics, KCRC, Department of Pediatrics, Department of Anesthesiology, Infection Prevention and Control-UVA Hospital Epidemiology, and Quality and Performance Improvement.