

Facing the challenge of CRBSIs

Stoker R, Managing Infection Control, November 2009

PURPOSE

This article reports on how University Medical Center (UMC) Tucson reversed a steady increase of CRBSIs by launching an aggressive, multi-pronged assault on the problem that was endangering patients and costing the hospital between \$34,500 and \$56,000 per incident. The author is the executive director of International Sharps Injury Prevention Society (ISIPS) and he interviewed Connie Moore of UMC Tucson after seeing her 2009 SHEA poster detailing the hospital's conversion from SmartSite® back to Clave® connectors.

MATERIALS AND METHODS

Connectors: No changes were made to catheter insertion or care protocols. Staff received thorough education on the correct use of Clave connectors by the manufacturer's clinical representatives. A team removed all of the discontinued connectors and ensured that only Clave connectors were stocked in all areas of the hospital. **Hand Hygiene:** Hand hygiene was observed and found to be low.

An intensive campaign was launched to make hand hygiene a standard practice with education and protocols, direct observation and reminders, and a ubiquitous supply of hand sanitizer units. **Central Line Management:** Strict adherence to central line management protocols was instituted. **Surveillance:** Confirmed BSIs were compared over baseline, outbreak, and follow-up. Results were shared with appropriate committees.

RESULTS

Following the conversion to Clave connectors and the implementation of the other measures, the hospital experienced a 40% decline in infections between Q4 of 2007 and Q1 of 2008 and an additional 47% decline in Q2 of 2008 as shown below.

TABLE 1
Hand Hygiene Compliance Study

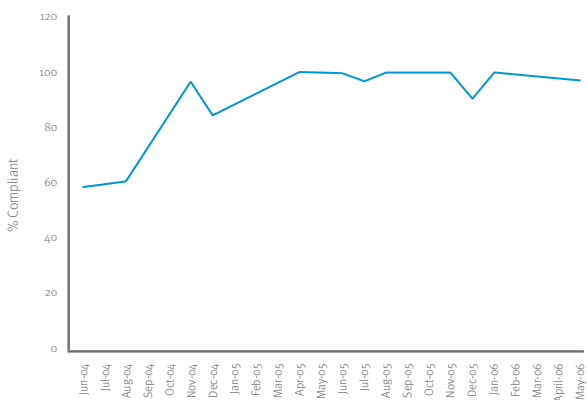
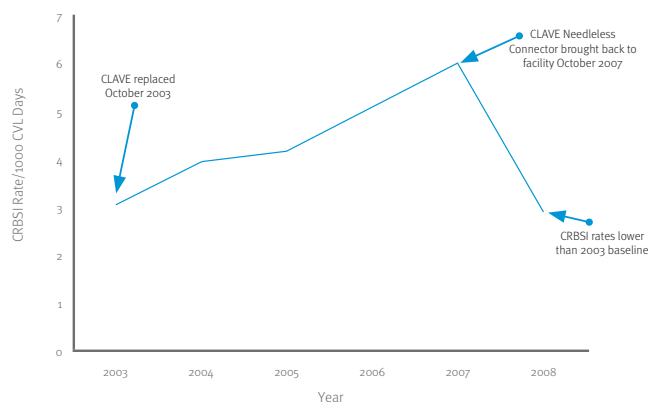


TABLE 2
Hospital Acquired CRBSI Rates 2003-2008



CONCLUSION

It is important to be aware of all the factors that might contribute to increased CRBSIs. All facilities should conduct bloodstream infection surveillance and evaluate trends, particularly in conjunction with any changes to IV systems. The example of the UMC experience shows the importance of being able to assess shortcomings and then implement decisions to create a culture of safety for healthcare workers and patients.