

JPS vs CLABSI

January 8th, 2015

The incidence of a deadly bloodstream infection has been cut in half at JPS by the efforts of a hospital-wide team to uncover why they occur and put preventive practices in place. November marked the third time in the last 10 months John Peter Smith had no central line-associated bloodstream infections.

Known as CLABSIs, central line-associated bloodstream infections occur when bacteria invade the body via a central line — a catheter surgically inserted into a major vein to allow rapid delivery of medications, fluids and nutrients for patients unable to ingest them any other way. The tip of the catheter sits near the heart, so invading organisms move quickly into circulation, becoming widespread.

CLABSIs are among the most common — and most deadly — infections that patients acquire in U.S. hospitals. The federal government is focusing on CLABSI prevention, attaching financial incentives for the first time last year, because they can be prevented, potentially saving thousands of lives and billions in healthcare spending.

Armed with funding from the state's Medicaid 1115 Waiver, a JPS team led by infection control nurse Mickie Wright began analyzing electronic medical-record data in 2012, digging for root causes of CLABSI at JPS and finding potential for process improvements.

Changes adopted since then include daily chlorhexidine baths for all ICU patients and, for all units, standardized dressing-change procedures and a color-coded system for supplies and caps on central-line ports. Nurse managers are automatically alerted when a patient has had a central line for more than seven days. In those cases, the patient's physician is asked to consider whether the continued need for it outweighs the infection risk. Designated nurses review each central line every Monday.

Updated hospital policy on central line insertion and care is in the works, as is a CBL that will become mandatory for nurses.

"It's going to be a never-ending process," said Wright, "as it should be. We should always be evaluating what's working well and what could be working better."

The number of infections per month was as high as seven in June, 2013. It has been lower than three since May, 2014.

At the project's outset, the rate of CLABSIs was 1.72 per 1,000 catheter days. In fiscal year 2013, the rate dropped to 0.9. It dropped to 0.7 in FY 2014. By the beginning of FY 2015 (in October, 2014,) it was down to 0.2.

Members of the CLABSI team include Wright, Heather Scroggins, Heather Bright, Renee Montgomery, Bobby Coleman, Debi Zafer, Kim Perkins, Melissa Cook, Amanda Lewis, Sheri Snow and Dana Nichols. Aubrie Augustus is the project's executive sponsor, Dr. Mark Oltermann is the medical sponsor and Greg Fuhrmann is the Innovation and Transformation Center coach.

