

INFECTION PREVENTION

Excerpted from ...

Ounce of prevention, pound of cure

Small changes can reap big rewards

by Susan Cantrell, ELS

When we do something right, it is often overlooked or taken for granted. *Healthcare Purchasing News* aims to publicly recognize professionals working in the field of infection prevention who are getting it right. Many of the victories may seem modest, but, when human lives are at stake, no success is too small to merit appreciation.

Bundling up

Select Medical Mechanicsburg, Pennsylvania

Headquartered in Pennsylvania, Select Medical's long-term acute-care hospital (LTACH) division manages more than 100 LTACHs specializing in medically complex cases across 33 states.

What they did: LTACH patients usually enter the facility with 10 to 15 comorbid conditions, as well as a high use of antibiotics and devices such as central catheters, putting them at a heightened risk for a central-line-associated bloodstream infection (CLABSI). Because patients arrive with a catheter already in place, the LTACHs set out to see if they could prevent CLABSI by implementing a central-catheter-maintenance bundle.

At its LTACHs, Select Medical implemented and monitored compliance of the central-catheter-maintenance bundle for six months, between August 2012 and January 2013. CLABSI

rates were also monitored fourteen months before the bundle implementation and eight months after the study ended. The average CLABSI rate was 1.28 per 1,000 days with a central catheter in the six months prior to implementing the central-catheter-maintenance bundle.

The central-catheter-maintenance bundle, based on CDC's "Guidelines for the Prevention of Intravascular Catheter-Related Infections," focused on monitoring all likely sources of colonization during central-catheter maintenance, including patients' skin, healthcare workers' hands, and use of disinfectants. Staff also were required to evaluate the necessity of the central catheter daily and to follow strict processes for changing dressings, tubing, and end caps. Select Medical added mandatory use of alcohol-based central-catheter caps ([3M Curox Disinfecting Port Protectors](#)) and chlorhexidine gluconate dressings ([3M Tegaderm CHG Chlorhexidine Gluconate IV Securement Dressings](#)), and developed a team of staff members to monitor and track compliance.

Results: Select Medical's CLABSI rates were reduced by 29 percent, at 0.96, and showed a sustained reduction over the next eight months. An average reduction of 4.5 CLABSIs per LTACH was observed for fourteen months after bundle implementation. This reduction could translate to an annual savings of \$3.7 million for the 30 LTACHs studied. (For further details, see Grigonis AM, Dawson AM, Burkett M, et al. [Use of a central catheter maintenance bundle in long-term care hospitals](#). *Am J Crit Care* 2016;25(2):165-172.)



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