

AHRQ Patient Safety Project Reduces Bloodstream Infections by 40 Percent

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A unique nationwide patient safety project funded by the Agency for Healthcare Research and Quality (AHRQ) reduced the rate of central line-associated bloodstream infections (CLABSIs) in intensive care units by 40 percent, according to the agency's preliminary findings of the largest national effort to combat CLABSIs to date. The project used the Comprehensive Unit-based Safety Program (CUSP) to achieve its landmark results that include preventing more than 2,000 CLABSIs, saving more than 500 lives and avoiding more than \$34 million in health care costs.

The agency and key project partners from the American Hospital Association (AHA) and Johns Hopkins Medicine discussed these dramatic findings at the AHRQ annual conference today in Bethesda, Md., and introduced the CUSP toolkit that helped hospitals accomplish this marked reduction.

“ CUSP shows us that with the right tools and resources, safety problems like these deadly infections can be prevented,” said AHRQ Director Carolyn M. Clancy, M.D. “ This project gives us a framework for taking research to scale in practical ways that help front-line clinicians provide the safest care possible for their patients.”

CLABSIs are one type of healthcare-associated infection (HAI). HAIs are infections that affect patients while they are receiving treatment for another condition in a health care setting. HAIs are a common complication of hospital care, affecting one in 20 patients in hospitals at any point in time.

The national project involved hospital teams at more than 1,100 adult intensive care units (ICUs) in 44 states over a 4-year period. Preliminary findings indicate that hospitals participating in this project reduced the rate of CLABSIs nationally from 1.903 infections per 1,000 central line days to 1.137 infections per 1,000 line days, an overall reduction of 40 percent.

The CUSP is a customizable program that helps hospital units address the foundation of how clinical teams care for patients. It combines clinical best practices with an understanding of the science of safety, improved safety culture, and an increased focus on teamwork. Based on the experiences gained in this successful project, the CUSP toolkit helps doctors, nurses, and other members of the clinical team understand how to identify safety problems and gives them the tools to tackle these problems that threaten the safety of their patients. It includes teaching tools and resources to support implementation at the unit level.

The first broad-scale application of CUSP was in Michigan, under the leadership of the Michigan Health & Hospital Association, where it was used to significantly reduce CLABSIs in that state. Following that success, CUSP was expanded to 10 states and then nationally through an AHRQ contract to the Health Research & Educational Trust, the research arm of the AHA.

“ This partnership between the federal government and hospitals provides clear evidence that we can protect patients from these deadly infections,” said AHA President and CEO Richard J. Umbdenstock. “ Hospitals remain committed to curtailing CLABSIs and enhancing safety in all clinical settings. Tools such as CUSP go a long way toward accomplishing that goal.”

CUSP was created by a team led by Peter J. Pronovost, M.D., Ph.D., senior vice president for patient safety and quality at Johns Hopkins Medicine. “ It is gratifying that this method has become such a powerful engine for improving the quality and safety of care nationwide,” said Dr. Pronovost. “ It is a really simple concept; trust the wisdom of your front-line clinicians.”

In addition, CUSP also builds on important work led by the Centers for Disease Control and Prevention and its evidence-based recommendations on treating infections. Together with

HHS' National Action Plan to Prevent Healthcare Associated Infections (<http://www.hhs.gov/ash/initiatives/hai/index.html>) and the Partnership for Patients (<http://www.healthcare.gov/compare/partnership-for-patients/>), AHRQ's efforts are a part of a coordinated approach drawing on the strengths and expertise across HHS.

Details about AHRQ's national CUSP project are available at <http://www.ahrq.gov/qual/hais.htm>. AHRQ's CUSP toolkit is available at www.ahrq.gov/cusptoolkit/.

For more information, please contact AHRQ Public Affairs: (301) 427-1244.

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