

# Disinfection caps cut CLABSI cases in half

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Central line-associated bloodstream infections (CLABSI) dropped by 52 percent when an alcohol-impregnated disinfection cap was used instead of standard scrubbing protocol, according to a new study published in the January issue of the *American Journal of Infection Control*, the official publication of the Association for Professionals in Infection Control and Epidemiology (APIC).

A team of researchers from NorthShore University HealthSystem conducted a study of [adult patients](#) in order to determine the efficacy of 70 percent alcohol-impregnated disinfection caps over the standard cleaning protocol, which involves scrubbing the catheter hub with an alcohol disinfectant wipe prior to accessing the lines. In a three-phased study, contamination rates among 799 patients sampled from three hospitals declined from a baseline of 12.7 percent using the standard cleaning protocol, to 5.5 percent when the disinfection cap was used, and increased back to 12 percent when the intervention was removed and [standard protocol](#) was reinstated. Infection rates at four hospitals declined from a baseline of 1.43 per 1,000 line days to 0.69 during the intervention, and returned to 1.31 per 1,000 line days when the intervention was suspended.

The researchers estimated that system-wide implementation of the disinfecting caps would prevent 21 CLABSIs and four deaths each year.

A central line-associated bloodstream infection is a serious infection that occurs when germs enter the bloodstream through a catheter (tube) that doctors often place in a large vein in the neck, chest, or groin to give

medication or fluids or to collect blood for medical tests. Contaminated catheter hubs can be a cause of such infections.

"Catheter hub [decontamination](#) requires a thorough scrub, and compliance varies," state the authors. "The approach of using a continuously applied alcohol-impregnated sponge as a cap on the hub for a standard approach to catheter care may eliminate the problem of teaching healthcare providers one additional disinfection process they need to use as part of their busy patient care schedule."

**More information:** "Continuous passive disinfection of catheter hubs prevents contamination and bloodstream infection," by Marc-Oliver Wright, Jackie Tropp, Donna M. Schora, Mary Dillon-Grant, Kari Peterson, Sue Boehm, Ari Robicsek, and Lance R. Peterson appears in the American Journal of Infection Control, Volume 41, Issue 1 (January 2013).

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