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Antiseptic baths to prevent infections deemed effective for long-term use

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Long-term use antiseptic soap in bathing critically ill patients to prevent healthcare-associated infections (HAIs) did not cause high levels of resistance in bacteria on the patients' skin, according to a new study published online in *Infection Control & Hospital Epidemiology*, the journal of the Society for Healthcare Epidemiology of America (SHEA).

"There has been concern in the healthcare community about the impact of routine, daily chlorhexidine (CHG) bathing on fostering the spread of bacteria resistant to this agent," said David Warren, MD, MPH, lead author of the study and Associate Professor of Medicine in the Division of Infectious Diseases at Washington University School of Medicine and Hospital Epidemiologist at Barnes-Jewish Hospital in St. Louis. "We did not see sustained increase in MRSA resistant to CHG.

Based on studies that showed that CHG used for daily body washing decreases MRSA infections, this practice has become widespread in hospitals. However, the long-term effects of the daily bathing on the prevalence of the qacA/B genes that lead to resistance to CHG in MRSA isolates is largely unknown.

Researchers conducted a retrospective cohort study of patients admitted to the ICU at Barnes-Jewish Hospital in St. Louis, Missouri from 2005 through 2012. They reviewed more than 500 randomly selected isolates of MRSA from surveillance cultures to determine drug resistance. The prevalence of CHG-resistant MRSA isolates fell from 6.2 percent in the year CHG bathing began to zero to 1.5 percent from 2006 to 2009. The

prevalence spiked to 16.9 percent in 2009 and 2010 before subsiding to 4.6 and 7.7 percent in 2011 and 2012.

The authors note that increased prevalence of resistant MRSA isolates at certain points in the study period likely stemmed from patients entering the ICU already colonized with that organism prior to CHG exposure. This allowed the research team to rule out the daily baths as a factor for the increase in CHG-resistant MRSA and the hospital continued to use CHG bathing as a strategy to prevent HAIs.

More information: David Warren, Martin Prager, Satish Munigala, Meghan Wallace, Colleen Kennedy, Kerry Bommarito, John Mazuski, Carey-Ann Burnham. "Prevalence of qacA/B genes and mupirocin resistance among methicillin-resistant Staphylococcus aureus (MRSA) isolates in the setting of chlorhexidine bathing without mupirocin use." Web (January XX, 2016).

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