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Leading expert disputes interpretation of hand hygiene survey at University of Nebraska Medical Center

ARLINGTON, Va. [Feb. 11, 2008] – A recent medical study's results are being misconstrued and receiving attention for the wrong reasons.

The study, published in the January issue of *Infection Control and Hospital Epidemiology*, focused on hand hygiene and whether alcohol-based hand gel prevents the spread of hospital-acquired infections. Despite doubling hand hygiene compliance to 70 percent among health care workers at the University of Nebraska Medical Center (UNMC), a corresponding decrease in infections rates was not observed.

This study should not be interpreted to mean that hand hygiene is not important in the prevention of infections or that it contradicts CDC recommendations. Instead, I think the main message is that hand hygiene is not a panacea and that it is but one ingredient in the recipe of infection prevention," said Dr. Mark E. Rupp, lead investigator on the study.

The study was not meant to be seen as a contradiction to current hospital guidelines from the Centers for Disease Control and Prevention, which says better hand hygiene reduces the spread of hospital infections, said Dr. Victoria Fraser of Washington University School of Medicine and also a member of the Board of Directors for The Society for Healthcare Epidemiology of America, SHEA.

"It's not enough to place the focus solely on hand hygiene," said Dr. Fraser. "There are numerous factors contributing to infection rates in hospitals and the spotlight should be on those as well." Some of those factors include: proper insertion and maintenance of catheters and prescribing antibiotics only when necessary so to avoid the appearance of drug-resistant bacteria.

Dr. Rupp further related that, as stated in the paper, the study was underpowered to find a statistically significant effect. "Because the infection rates in the ICUs were low to begin with, we knew it would be difficult to observe a statistically significant change in infection rates, stated Rupp." Additional explanations for the lack of observed correlation between hand hygiene and infection include the possibility that the 70% compliance with hand hygiene observed in this study population did not cross some unknown upper threshold at which point it has an effect. This threshold might depend on other variables such as the level of inoculum, the virulence of the organism, or the immune status of the patient. Rupp said "The bottomline is that these infections are complex and it might be overly simplistic to think that a single intervention would have a profound affect. Unfortunately, there are many people who think that if we just improved hand hygiene all of our infection control problems would go away – this study is a bit of a cautionary message – but **not** a message that hand hygiene isn't important."

The Society for Healthcare Epidemiology of America (SHEA) was organized in 1980 to foster the development and application of the science of healthcare epidemiology, which is broadly defined as activities designed to study and/or improve patient care outcomes. Healthcare epidemiology includes a variety of disciplines and activities including epidemiologic and

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