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**Research Proves Antimicrobial Copper Reduces
the Risk of Infections by more than 40%**

Early results from a comprehensive, multi-site clinical trial in the US demonstrate that the use of antimicrobial copper surfaces in intensive care unit rooms resulted in a 40.4% reduction in the risk of acquiring a hospital infection. Initial study results were presented at the World Health Organization's 1st International Conference on Prevention and Infection Control (ICPIC) in Geneva, Switzerland on July 1st, 2011.

The study, funded by the US Department of Defense, was designed to determine the efficacy of antimicrobial copper in reducing the level of pathogens in hospital rooms, and whether such a reduction would translate into a lower rate of infection. Researchers at the three hospitals involved in the trial – Memorial Sloan Kettering Cancer Center in New York, the Medical University of South Carolina and the Ralph H. Johnson VA Medical Center, both in Charleston, South Carolina – replaced commonly-touched items, such as bed rails, overbed tray tables, nurse call buttons and IV poles, with antimicrobial copper versions.

Rooms with copper surfaces demonstrated a 97% reduction in surface pathogens, the same level achieved by “terminal” cleaning: the regimen conducted after each patient vacates a room.

Dr Michael Schmidt, Professor and Vice Chairman of Microbiology and Immunology at MUSC, who presented the results at ICPIC, said, “Bacteria present on ICU room surfaces are probably responsible for 35-80% of patient infections, demonstrating how critical it is to keep hospitals clean. The copper objects used in the clinical trial supplemented cleaning protocols, lowered microbial levels, and resulted in a statistically significant reduction in the number of infections contracted by patients treated in those rooms.”

In healthcare facilities around the world, 7 million infections occur every yearⁱ. In addition, these infections cost over \$80 billion globally, according to the World Health Organizationⁱⁱ.

Independent laboratory testing has demonstrated that, when cleaned regularly, antimicrobial copper products kill greater than 99.9% of microorganisms. These include deadly antibiotic resistant bacteria such as MRSA, VRE, and other bacteria which can cause fatal infections, such as *Clostridium difficile*. Antimicrobial copper has also been proven effective against

viruses such as Influenza A and pathogenic fungi. Antimicrobial copper is the only family of solid materials that has been registered with the US Environmental Protection Agency as capable of killing disease-causing organisms.

ⁱ bioMérieux Corp, *First World Forum on HCAIS, 2007*

ⁱⁱ World Health Organization, *The Burden of Health Care-Associated Infection Worldwide, 2010*



About MUSC

Founded in 1824 in Charleston, The Medical University of South Carolina is the oldest medical school in the southern US. MUSC educates and trains more than 3,000 students and residents, and has nearly 11,000 employees, including 1,500 faculty members. MUSC operates a 750-bed medical center, which includes a nationally recognized Children's Hospital and a leading Institute of Psychiatry. For more information on academic information or clinical services, visit www.musc.edu or www.muschealth.com.

Latest antimicrobial copper installation

A £1 million, eight-bed intensive care unit specially designed with cutting-edge infection prevention measures has just opened at Trafford General Hospital in Manchester, and is taking advantage of copper's antimicrobial efficacy for touch surfaces. Door furniture in all clinical areas and work surfaces used for the preparation of medication have been made from copper.

The facility is the latest embodiment of Trafford Healthcare NHS Trust's commitment to an outstanding record on healthcare-associated infections. Dr John Barnes, lead consultant in intensive care and consultant anaesthetist, explained that the new unit "will provide a modern, patient-centred service and care to our most critically-ill patients, using the latest innovations in infection prevention and control."

	
Copperised ICU room in MSKCC	Antimicrobial copper IV pole



Antimicrobial copper overbed table

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