Copper Kills Antibiotic-Resistant 'Nightmare Bacteria'

Copper Development Association

Antimicrobial Copper Products in Hospitals Should Be Considered as a Response to CDC's Latest Warning on Lethal Bacteria

Deadly bacterial infections are on the rise in American hospitals, as antibiotics are being overcome by germs known as carbapenem-resistant Enterobacteriaceae (CRE). While many antibiotics have failed to treat bacteria such as CRE, Antimicrobial Copper has been proven to continuously kill greater than 99.9% of bacteria* that cause healthcare acquired infections within two hours, including those resistant to antibiotics.

The Centers for Disease Control and Prevention (CDC) has warned that CRE—a strain of bacteria that kills up to half of the patients who are infected—is becoming more common. In the last decade, the proportion of Enterobacteriaceae that were carbapenem-resistant quadrupled from 1.2% in 2001 to 4.2% in 2011.

"CRE are nightmare bacteria," CDC Director Dr. Tom Frieden said in a statement, according to CNN. "Our strongest antibiotics don't work and patients are left with potentially untreatable infections. Doctors, hospital leaders and public health must work together now to implement CDC's 'detect and protect' strategy and stop these infections from spreading."

A Department of Defense study at three hospitals in the U.S. found that copper is capable of killing pathogens very effectively. In fact, Antimicrobial Copper and its alloys (e.g. brass and bronze) are registered with the US Environmental Protection Agency (EPA) as being able to kill greater than 99.9% of infection causing bacteria [1]* within two hours of exposure.

"It is of particular interest that two of the bacteria that make up the CRE strain—E. coli, and Enterobacter aerogenes, and a third organism of concern, although not members of CRE, carbapenum-resistant Pseudomonas aeroginosa (CRPA)—are related to the strains that were actually killed within the two hours on Antimicrobial Copper surfaces when tested under EPA test protocols," said Harold Michels, Senior Vice President of Technology & Technical Services at the Copper Development Association (CDA). In addition to the three bacteria cited above, copper surfaces also kill several other deadly superbugs, including Methicillin-Resistant Staphylococcus aureus (MRSA) and Vancomycin-Resistant Enterococcus (VRE), within two hours. This effect is covered by a public health EPA registration, and was also proven in recently completed clinical trials.

A study published in the July 2012 edition of the Journal of Clinical Microbiology found that when the surfaces of hospital components (e.g. bedrail, IV pole, overbed

table) made of other materials were replaced with copper ones, there was an 83% reduction in the amount of bacteria [2] on those surfaces. With healthcare acquired infections on the rise as a result of these bacteria, the use of Antimicrobial Copper should be considered as a key infection-fighting strategy.

“Hospitals should think of ways beyond handwashing to decrease healthcare-associated infections,” said Dr. Archelle Georgiou, physician and healthcare advocate. “Antimicrobial Copper represents a breakthrough innovation to address healthcare acquired infections, and hospitals who install Antimicrobial Copper products are engineering safety into their patient care.”

Currently, there are hundreds of Antimicrobial Copper healthcare related products—from IV poles to stretchers to door hardware — available today.

For more information about Antimicrobial Copper, visit www.antimicrobialcopper.com [3].

* Laboratory testing shows that, when cleaned regularly, Antimicrobial Copper surfaces kill greater than 99.9% of the following bacteria within 2 hours of exposure: MRSA, Vancomycin-Resistant Enterococcus faecalis (VRE), Staphylococcus aureus, Enterobacter aerogenes, Pseudomonas aeruginosa, and E. coli O157:H7. Antimicrobial Copper surfaces are a supplement to and not a substitute for standard infection control practices and have been shown to reduce microbial contamination, but do not necessarily prevent cross contamination; users must continue to follow all current infection control practices.

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