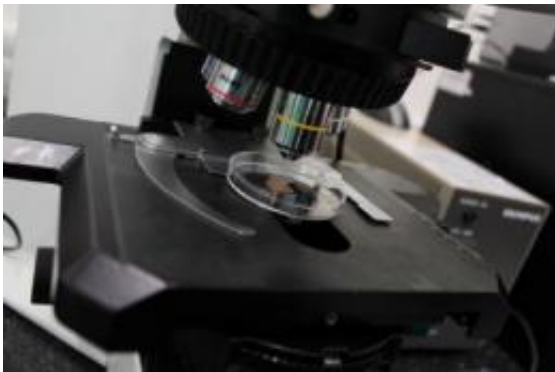


# MRSA eliminated by copper in live global broadcast

April 4 2011

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The live experiment used state-of-the-art fluorescent microscopy to show copper eradicating an exceptionally high challenge of MRSA bacteria -- one of the notorious antibiotic-resistant superbugs -- within minutes. Credit: Copper Development Agency

A live broadcast from the University of Southampton today (4 April 2011) highlighted the effectiveness of antimicrobial copper in preventing the spread of antibiotic-resistant organisms, such as MRSA, in hospitals.

Tying in with the theme of this week's World Health Day – 'Antimicrobial resistance and its global spread' – a live experiment from a laboratory at the University of Southampton used state-of-the-art fluorescent microscopy to show copper eradicating an exceptionally high challenge of MRSA bacteria – one of the notorious antibiotic-resistant

superbugs – within minutes.

Microbiologists and clinicians worldwide witnessed tens of thousands of MRSA bacteria perishing rapidly on copper, yet surviving on stainless steel: a material used commonly in hospitals, yet lacking any antimicrobial efficacy. Professor Bill Keevil, Director of Environmental Healthcare at the University of Southampton and leader of the experiment, explained the significance of the result: "Bacteria such as MRSA can survive on ordinary surfaces like door handles, taps and grab rails for days, even months, and be transferred on hands, spreading bacteria to other surfaces or to patients.

"As more resistant bacteria emerge, we're running out of drugs to treat the infections they cause, so we need to do everything practicable to prevent their spread. Copper is a powerful antimicrobial, which quickly and continuously reduces the number of bacteria on its surface. We've demonstrated it here, in the lab, and it's also been shown to be effective in busy clinical environments as part of a set of infection control procedures.

"Changing common touch surfaces in hospitals to copper can help break the chain of infection, leading to a more hygienic environment, which must have a positive impact on the well-being of patients, even in the face of antibiotic-resistant bacteria."

Approximately seven million people worldwide acquire a healthcare-associated infection (HAI) each year, and of the four million in Europe, around 37,000 die. In addition to the immeasurable personal toll, they cost over \$80 billion globally, according to the World Health Organisation.

Provided by University of Southampton

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