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Antimicrobial copper in an ICU offers a cost-effective additional measure to boost infection control

The translational paper – *From Laboratory Research to a Clinical Trial: Copper Alloy Surfaces Kill Bacteria and Reduce Hospital-Acquired Infections*, published in Health Environments Research & Design Journal – explores copper's efficacy from laboratory research to a clinical trial, focusing on the multi-centre US trial that found an 83% reduction in bacteria on copper surfaces and a corresponding 58% reduction in patient infections in rooms equipped with copper components.

The paper examines the cost difference between the copper items fabricated for the clinical trial and the cost of standard components, and compares it with a lower-end cost for treating an HCAI. In the researchers' calculations, the time taken to recoup the extra cost of the copper items by reduced infections and associated costs is 44.2 days.

This supports the findings of York Health Economics Consortium – based at the University of York – which developed a model using data from the US clinical trial, but with UK figures for component and infection costs. The YHEC model showed a return on investment within two months, and is available for download from www.antimicrobialcopper.org (see the YHEC Business Case Quick Link).

Copper is a powerful antimicrobial with rapid, broad-spectrum efficacy against bacteria and viruses, including MRSA, *E.coli* and norovirus. It shares this benefit with a range of copper alloys – such as brasses and bronzes – forming a family of materials collectively called 'antimicrobial copper'.

Touch surfaces made from solid antimicrobial copper are used by healthcare facilities around the world to reduce the spread of infections such as norovirus and MRSA, supporting key infection control measures such as good hand hygiene and frequent surface cleaning and disinfection.

For more information on antimicrobial copper, visit www.antimicrobialcopper.org.

Reference:

Michels, H.T. 2015. *From Laboratory Research to a Clinical Trial: Copper Alloy Surfaces Kill Bacteria and Reduce Hospital-Acquired Infections* . Health Environments Research & Design Journal. 1–16.

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