



PR792 issued: 12th November 2010

Copper Reduces Contamination Between Cleans

Results presented at the recent 7th International Conference of the Hospital Infection Society in Liverpool confirm the role of antimicrobial copper touch surfaces as a supplement to routine cleaning to improve environmental hygiene in clinical environments.

In an extension of an earlier study, a wide selection of standard touch surfaces were replaced with antimicrobial copper equivalents on a general medical ward at Selly Oak hospital. The frequently-touched surfaces identified for substitution with copper-containing surfaces included door furniture, grab rails, trolleys, over-bed tables and taps. During the six-month study, copper and equivalent control items were sampled once a week for 24 weeks, at least 90 minutes after the morning's routine cleaning and ahead of the 5 p.m. cleaning. The levels of microbiological contamination were then compared between the copper and standard surfaces.

The results showed that the highest contamination was found in the patient bathrooms, particularly on the chrome-plated toilet flush lever handles and tap handles, and on the plastic light pulls and toilet seats.

Copper-containing items, including door push plates, door pull handles, tap handles, toilet flush lever handles, patient over-bed tables, dressing trolleys, socket switches and light pull cord toggles were found to have significantly fewer microorganisms on their surfaces than the controls, and vancomycin-resistant enterococci, meticillin-sensitive *Staphylococcus aureus* and coliform bacteria were recovered less frequently from these.

Contaminated surfaces act as reservoirs of clinical microorganisms, which can be transferred to the hands of staff, patients and visitors. This study shows that, despite routine cleaning, surfaces in the clinical environment may become contaminated with pathogenic microorganisms. Microbial load, including the presence of microorganisms responsible for healthcare-associated infections, was shown to be significantly reduced between cleans on the majority of the copper surfaces, compared to standard surfaces.

The researchers, led by Professor Tom Elliott, Consultant Microbiologist at University Hospitals Birmingham NHS Foundation Trust, concluded that the use of copper, in

combination with optimal infection prevention strategies, may further reduce the risk of patients acquiring infections in hospitals and other healthcare environments.

	
Researchers: Professor Tom Elliott, Doctor Anna Casey and Doctor Tarja Karpanen	Sampling of antimicrobial copper push plate
	
Antimicrobial copper dressings trolley	Antimicrobial copper taps and sink waste

For further information or high res images, contact:

Bryony Samuel
Communications Officer
Copper Development Association
5 Grovelands Business Centre, Boundary Way
Hemel Hempstead, Herts HP2 7TE
Tel: 01442 275705, Fax: 01442 275716
Email: bryony.samuel@copperdev.co.uk
Website: www.copperinfo.co.uk
www.antimicrobialcopper.com

Copper Connects Life.™

Editor's Notes

1. The findings were presented in a poster session at the 7th International Conference of the Hospital Infection Society, October 2010.

<http://www.antimicrobialcopper.com/media/132681/poster-his2010.pdf>.