



## ANTIMICROBIAL COPPER – WHAT, WHY AND WHERE





Patient room and ensuite bathroom at a Lincolnshire sleep clinic, retrofit upgrade in Sept 2014. Images courtesy of Vetobac [www.vetobac.co.uk](http://www.vetobac.co.uk)

## An Introduction to Antimicrobial Copper

Healthcare is under unprecedented pressure: aging population, poor lifestyles, economic budget cuts, the massive burden of HCAs on finances and bed spaces, the "bad bugs and no drugs" scenario of AMR: we need to act!

Healthcare designers and care providers are under pressure to improve the utilisation of space, which constitutes an intensification of healthcare.

### This sounds sensible, but:

- Studies show a correlation between bed occupancy rates and C. diff infection rates in ICUs
- Intensification of agriculture / aquaculture has required extensive use (abuse?) of antibiotics to reduce infection and mortality
- How do we achieve this intensification, and avoid increasing the risk of infection without affecting healthcare worker behaviour or involving room "downtime"?

### There is increasing evidence of the role of the environment in acquisition of infection

- Approximately 80% of overall infection is spread by touch
- An adult touches on average approximately 30 items per minute
- Studies show that a contaminated hand can spread virus to the next seven surfaces touched
- Long-term pathogen survival on inert surfaces is documented
- Studies show that a single contaminated item (doorknob or elevator button) can spread virus rapidly through entire office buildings, hotels or hospitals.

- Inert materials offer no protection between cleans or between touches
- Some frequently-used materials are very difficult to clean (eg stainless steel with brushed surface, or plastic surfaces once damaged by disinfectants)
- Microbiologists tell us about the affinity for bacteria to adhere to plastics and form biofilms, yet plastic surfaces are widely-used in healthcare settings
- Reducing HCAs will benefit patients, wider society and healthcare providers' finances and resources

The use of copper touch surfaces is proven to dramatically reduce microbial bioburden in clinical settings. This is demonstrated in approximately 40 clinical studies, published in respected journals.

Laboratory tests confirm that the intrinsic contact-kill properties of solid copper metals - under realistic indoor conditions - are rapid, multi-modal (not just membrane disruption and cessation of respiration but rapid destruction of DNA / RNA including plasmids), and that the Horizontal Gene Transfer which occurs on standard materials does not occur on copper touch surfaces.



### Antimicrobial Copper Touch Surfaces Company Overview – ACT Surfaces

ACT Surfaces work in close partnership with specialist suppliers and healthcare professionals, to provide a comprehensive service of advice, materials and products. This will enable healthcare providers to improve patient outcomes and optimise return on investment relating to strategic deployment of Antimicrobial Copper Touch Surfaces. Our team has experience of working in NHS Healthcare and the specification of products and materials for engineering, marine and architectural project applications. Our aim is to help healthcare professionals select the best products for their particular setting and infection control needs. With guidance, the right products will be an effective and permanent ally – dramatically reducing microbial bioburden on frequently-touched surfaces, which will reduce the risk of HCAs; this is demonstrated to yield significant clinical savings and free-up valuable clinical resources.

*How could you or your organisation benefit?*

*What could (or should) you consider?*

*Ask us for a straightforward and open discussion of the research, YHEC cost-benefit model, practical considerations for implementation, and commercially available products: without "sales pressure".*



Pegler Yorkshire **Performa**

### Antimicrobial Copper Healthcare Taps Company Overview – Pegler Yorkshire

Pegler Yorkshire has combined antimicrobial copper technology with a selection of its Performa range of healthcare taps and mixers to provide a competitively-priced range specifically designed to suit the needs of healthcare professionals, patients and care home residents.

The range conforms to the latest Health Technical Memorandum for water systems HTM 04-01: Addendum, and is also independently tested and approved by WRAS.



Pegler Yorkshire is well known and respected as one of the leading manufacturers of advanced plumbing, heating and engineering products in the world. It's a reputation earned through a total dedication to quality, innovation and customer service that's been the hallmark of the company since it was established in the 1890's.





Pressed sinks and drainers made by Fellows from Antimicrobial Copper supplied by KME

## Antimicrobial Copper Sinks Company Overview - Fellows

Established in 1895, Fellows specialise in deep-drawn presswork up to 300mm depth. Based in Wolverhampton, and part of the Rical Group, Fellows' experience and expertise has earned them an enviable reputation as "go-to" partners for multiple-drawing, complicated presswork within differing sectors.

New for 2015, Fellows are pleased to announce successful production high-quality deep-drawn sinks using **KME Plus®** warm silver Antimicrobial Copper.

Roger Worsey, Manufacturing Manager at Fellows, said: *"The results from our initial trials far exceeded our expectations. The quality achieved even permits a polished surface finish instead of the standard matt finishes; the material's colour tones are stunning and we feel this lends itself not only to healthcare but also to high-end interior design applications beyond sinks."*

The addition of sinks to the established range of taps, grab rails, light switches and door furniture made from approved Antimicrobial Copper alloy materials is welcomed by healthcare professionals concerned about pathogen survival on standard materials.

For more information on any of the products and services highlighted please contact:

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