It is true to say that environmental surface screening, whether during an outbreak or non-outbreak situation, often fails to detect healthcare pathogens of interest despite targeting known reservoirs. There are several reasons for this, but even resilient pathogens are surprisingly few in number on high risk near-patient surfaces.3,4 Rarely do screening programmes actually quantify cfu values on these surfaces, but, when they do, organisms such as S. aureus and Clostridium difficile are <1 log10.3,4 If that is the case, then for these organisms at least, a physical wipe that reduces microbial contamination by 3 log10 is more than sufficient to deal with scanty survivors.

Shouldn’t the in-vitro impact of physical wiping alone have been explored further? Perhaps the authors missed this particular trick but, on the other hand, they have produced a truly excellent paper, which offers a standard for disinfectant and detergent wipe testing, now and for the future.

**Facility Cleaning & Disinfection after a MRSA Infection**

When MRSA skin infections occur, cleaning and disinfection should be performed on surfaces that are likely to contact uncovered or poorly covered infections.

- Cleaning surfaces with detergent-based cleaners or Environmental Protection Agency (EPA)-registered disinfectants is effective at removing MRSA from the environment.

**Missing a trick? Response to: ‘Disinfectant wipes are appropriate to control microbial bioburden from surfaces’**

2015 Published by Elsevier Ltd on behalf of the Healthcare Infection Society.

I wish to comment on the recent paper examining the efficacy of disinfectant wipes by Sattar et al. The authors state in the summary that, ‘Disinfectant pre-soaked wipes are rarely tested using conditions simulating their field use, and the label claims of environmental surface disinfectants seldom include wiping action.’ This is absolutely correct, but while the paper goes on to demonstrate the kill potency of different commercial wipes using rigorous methodology, it does not adequately explore the data presumed attributable to the wiping action alone (see control values in Figure 1). Indeed, there is no discussion of the effect from physical wiping without disinfectant.

The authors can correct me if I am wrong but it seems that wiping alone with control cloths reduced Staphylococcus aureus and Acinetobacter baumannii inocula by 3 log10 colony-forming units after 10 s of wiping. It is possible that the authors have ‘missed a trick’ here, as they say.

Why is mechanical removal of microbial soil important? Perhaps the most pertinent point to make is that routine cleaning of healthcare surfaces with a range of wipes and cloths in the UK National Health Service is performed with detergent only, and this doesn’t appear to have done too much harm given the situation described worldwide.

Furthermore, the reduced toxicity of environmentally friendly cleaning deserves support from such studies. This evidence may encourage other hospitals and healthcare regions to discard routine use of disinfectants and adopt a more ‘green’ (and exceedingly cheaper) approach.

**Efficacy of Different Cleaning and Disinfection Methods against Clostridium difficile Spores: Importance of Physical Removal versus Sporicidal Inactivation**

Infection Control & Hospital Epidemiology 2012, VOL 33, NO. 12
William A. Rutala, PhD, MPH;1 Maria F. Gergen, MT (ASCP);2 David J. Weber, MD, MPH12

We tested the effectiveness of disinfectants and wipe methods against Clostridium difficile spores. Wiping with non sporicidal agents (physical removal) was effective in removing more than 2.9 log10 C. difficile spores. Wiping with sporicidal agents eliminated more than 3.90 log C. difficile spores (physical removal and/or inactivation). Spraying with a sporicide eliminated more than 3.44 log10 C. difficile spores but would not remove debris.

Infect Control Hosp Epidemiol 2012;33(12):1255-

**RESULTS**

Results are summarized in Table 2. Any method that included wiping the Formica surface resulted in a greater than 2.90 log10 reduction in C. difficile spores. Even wiping with a non sporicidal product, QC-53, was effective in eliminating more than 2.90 log10 C. difficile spores. Thus, physical removal can eliminate approximately 3 log10 C. difficile spores from environmental surfaces.

Our data demonstrated that wiping environmental surfaces, even with a non sporicidal product, can eliminate approximately 3 log10 C. difficile spores. Most studies that have quantitated the level of C. difficile surface contamination have reported levels below 1 log10 (<10 colony-forming units per Rodac). Thus, the level of C. difficile elimination demonstrated by our study would be sufficient to remove the expected level of contamination. Unfortunately, studies have repeatedly demonstrated that less than 50% of room surfaces are adequately cleaned.

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- Hospital disinfection with neutral pH and up to 95% less chemical.
PCS validates its recommended environmental surface decontamination processes with CREM Co Labs newly developed third tier of the Quantitative Carrier Test Method (QCT-3) to assess decontamination of high-touch environmental surfaces (HITES) with the incorporation of field-relevant wiping.

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TEST ORGANISM: Clostridium difficile spores (ATCC 43598), Staphylococcus aureus (ATCC 6538) and Salmonella choleraesuis (ATCC 10708)

Efficacy of Different Cleaning and Disinfection Methods against Clostridium difficile Spores: Importance of Physical Removal versus Sporidal Inactivation

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Environmental Cleaning & Disinfecting for MRSA

Links and References

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