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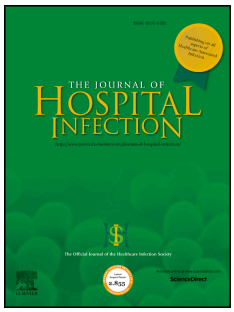

Test parameters for efficacy evaluations of aerial hydrogen peroxide decontamination systems

S. Ali, S. Yui, M. Muzslay, A.P.R. Wilson

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Letter to the Editor:

Test parameters for efficacy evaluations of aerial hydrogen peroxide decontamination systems

Dear Editor,

We comment on the difficulties posed when designing test criteria for the assessment of whole-room aerial hydrogen peroxide decontamination systems.

In-use efficacy data of biocides and decontamination systems provides essential information on performance in local hospital conditions, potential advantages and weaknesses that may not be obvious from manufacturer brochure material and commercial test data. Obtaining unbiased data on end-user efficacies is difficult and therefore an independent head-to-head study is useful.

We have previously conducted a study to evaluate the reductions in environmental contamination during in-use operation of two commercially-available hydrogen peroxide whole-room disinfection systems [1].

In the absence of defined, standardised national testing protocols we designed our own testing protocol for our setting. Our assessments involved in-house biological indicators (BIs) using a Gram-positive, Gram-negative and a spore-bearing organism (MRSA, ESBL-producing *Klebsiella pneumoniae* and *C. difficile* 027 spores respectively) to simulate clinically-relevant organisms in the hospital environment and incorporated varying levels of soiling challenges to indicate best and worst-case efficacy outcomes when using either system