

Application of Hydrogen Peroxide Vapour (HPV) for the decontamination of mobile medical equipment

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Medical equipment can become contaminated with nosocomial pathogens and can be a source for indirect transmission. To overcome some of the practical constraints associated with Hydrogen Peroxide Vapour (HPV) decontamination, including the need to vacate clinical areas and relatively long cycle times compared with conventional terminal cleaning, we trialled a programme of decontamination of mobile medical equipment in dedicated decontamination rooms in our hospital. 192 items of medical equipment and fixtures were sampled after cleaning but before HPV and again immediately after HPV decontamination. 21% of the 192 sites were contaminated with nosocomial pathogens after standard cleaning (including 6% with methicillin-resistant *Staphylococcus aureus* (MRSA) and 5% with *Acinetobacter* spp.) compared with 4% of the 192 sites after HPV ($p < 0.0001$), including 1 with MRSA and 2 with *Acinetobacter* spp. Some of the items were noted to be visibly dirty after cleaning, which explains the low level of contamination on the equipment after exposure to HPV, because biological soiling reduces the efficacy of HPV. During the project, the HPV equipment and BIOQUELL personnel stationed on-site were deployed to tackle contamination elsewhere in the hospital, including *C. difficile*, which proved to be a useful resource. HPV was an effective method for the decontamination of mobile medical equipment and the application of HPV in a dedicated medical equipment room alleviated some of the practical constraints of the system in our busy hospital.



Other information or references:

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