

Hydrogen Peroxide Vapour (HPV) decontamination to tackle *C. difficile* at the Kent and Sussex Hospital

Maidstone Hospital, Maidstone and Tunbridge Wells NHS Trust

Case study contributors:

Gail Locock (Lead Nurse, Infection Control, Maidstone and Tunbridge Wells NHS Trust), Jonathan A. Otter (BIOQUELL (UK) Ltd.)

We experienced an outbreak of *Clostridium difficile*-associated disease in late 2005 at Maidstone hospital. The number of cases increased from 17 to 49 between September and December 2005 and the number of cases from September - December 2005 was 45% higher than the comparable period in 2004. Most of the isolates sent off for typing during the outbreak period were ribotype 027. Many of the cases occurred on two wards; an orthopaedic and general medicine ward. The outbreak response included prompt cohort isolation of *C. difficile* positive patients and the implementation of a cohort ward. The number of *C. difficile* cases returned towards baseline levels within 6 months. Once we judged that the outbreak was under control, the cohort ward returned to normal service. We believed that potential environmental contamination with *C. difficile* could have been a risk following the high volume of *C. difficile* patients treated on the ward during the prior 6-months. Therefore, we used Hydrogen Peroxide Vapour (HPV) decontamination to ensure that the ward was safe to re-open. We were not able to close and empty the entire ward due to bed pressures. The ward consists of four 6-bed bays, which were decontaminated sequentially in November 2006, each cycle taking two hours to complete and the cohort ward was returned to normal service. The number of *C. difficile* cases in the hospital has remained at or below the baseline level for six months, and we believe that HPV decontamination was useful for the terminal decontamination of our cohort ward.



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BIOQUELL UK Ltd, 52 Royce Close, West Portway, Andover, UK. SP10 3TS
Tel: +44 (0)1264 835835 Email: enquiries@bioquell.com