

POSTER PRESENTATION

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Marked reductions in rates of vancomycin-resistant enterococci (VRE) colonization & disease associated with introduction of a routine hospital-wide bleach cleaning program

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Introduction / objectives

To reduce rates of VRE colonization/disease, we introduced a multimodal hospital-wide bleach-based cleaning program (BBCP) that included a new product (sodium hypochlorite 1000ppm + detergent), new standardised (routine and detailed) cleaning practices & modified glove/gown protocols to rely on alcohol-based handrub & sleeveless aprons. Rates of VRE pre- & post-BBCP were compared.

Methods

Patients in 4 high-risk wards (liver transplant, renal, ICU, hem/oncology) were screened on admission & weekly for rectal VRE colonization, & rates were compared pre-BBCP (Period A [6 mo] – Feb-July 2009) vs post-BBCP (Period B1 & B2 – Feb-July & Aug-Jan 2010/11). Rates of VRE bacteremia (per 100 patients blood cultured [100PBC]) & of urinary tract infection [UTI] were compared - Period A vs B1 & B2.

Results

A 37% reduction in newly recognised VRE colonizations was observed post-BBCP (208/1948 patients screened [Period A] vs 181/2129 [Period B1] vs 143/2141 [Period B2], $p < 0.0001$), despite an increase in screening compliance (68.1% vs 74.6% vs 71.9%, $p = 0.061$) and a stable rate of on-admission VRE colonization (38/1461 [2.6%] vs 44/1795 [2.5%] vs 38/1840 [2.1%], $p = 0.34$). VRE bacteremia declined from 0.48/100PBC (14/2935) pre-BBCP to 0.08/100PBC (5/6194) during the 12 mo post-BBCP

($p = 0.0002$), with a reduction in UTI cases (24 [A] vs 19 [B1] vs 17 [B2]).

Conclusion

The BBCP was associated with a significant reduction in rates of both new VRE colonizations (37% decrease) & VRE disease. This approach potentially represents a new paradigm in the management of VRE.

Disclosure of interest

None declared.

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