

Research Compact

Tags

Octenisan, MRSA, Decolonization

Title

Intranasal octenidine and universal chlorhexidine bathing can reduce meticillin-resistant *Staphylococcus aureus* (MRSA) acquisition in an extended care facility in Singapore

Authors

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Source

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Aim of the study

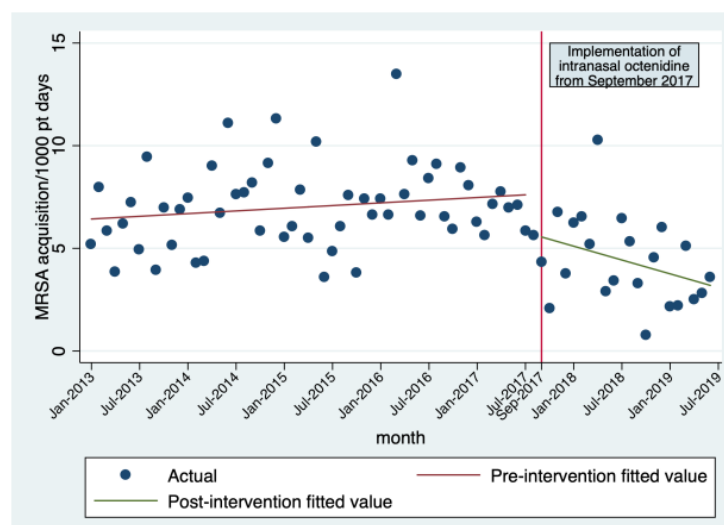
MRSA is prevalent in extended-care facilities. One of the main reservoirs of MRSA are the nares. Antiseptic whole body wash and intranasal mupirocin treatment have been shown to be effective for MRSA decolonization. However, more and more mupirocin resistant MRSA strains get isolated. This study assesses the effect of topical intranasal octenidine, coupled with daily universal chlorhexidine bathing, in reducing MRSA acquisition in an extended care facility.

Methods

Quasi-experimental before-after study over a time period of 6 years in a 100-bed rehabilitation hospital. Routine MRSA screening on admission clarified colonization status of patients. Universal bathing with 4% chlorhexidine and intranasal application of octenidine gel were implemented in the intervention period. Colonization status was again assessed at discharge. Monthly MRSA acquisition rates per 1,000 patient-days were compared in the pre- and post-intervention periods. The data were also adjusted for hand hygiene compliance and MRSA prevalence on admission.

Results

In the 22 months long intervention period the mean monthly MRSA-acquisition rate decreased significantly from 7/1000 patient days (pre-intervention) to 4.4/1000 patient days. In unadjusted data the acquisition rates were stable over the whole study period. When adjusting to hand hygiene compliance and MRSA prevalence on admission the acquisitions were stable in the pre-intervention period, but dropped immediately after implementation of the intervention



Conclusion

Intranasal octenidine together with chlorhexidine baths can successfully reduce MRSA-acquisition rates in extended-care facilities. This is especially useful in high mupirocin resistance prevalence settings. This study again highlights the importance of bundle concepts in the fight against multiresistant bacteria.