

AN ALCOHOLIC (AND CHLORHEXIDINE) APPROACH TO HAND HYGIENE

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Poor hand hygiene (hand washing) practices among Health Care Workers (HCW's) are the single most important factor responsible for nosocomial disease transmission. To better understand the epidemiology of Methicillin Resistant *Staphylococcus aureus* (MRSA) colonisation and infection at our institution, we introduced a co-ordinated, multi-modal program Operation Clean Start (OCS) to reduce MRSA transmission, then measured its efficacy. 'OCS' included the introduction of an alcoholic/chlorhexidine hand lotion ('DeBug'), use of Isopropyl alcohol impregnated wipes to clean shared equipment, clearance of MRSA carriage with mupirocin nasal ointment & triclosan body wash and an intensive education and advertising campaign to raise awareness.

Methods: The following outcome measures were assessed before and after the introduction of OCS in study wards. Twice weekly screening for MRSA colonisation in patient's nose and groin, Laboratory/Medical record based monitoring of clinical specimens for MRSA infections & vancomycin usage, weekly screening of HCW's hands and nose, weekly environmental cultures and HCW Hand Hygiene (HH) compliance.

Results: Results for one study level confirm that patient MRSA colonisation and acquisition have decreased from 12.9% to 9.5% and 6.0% to 2.1% respectively when screening samples were collected pre and post OCS. Defined daily dosing of vancomycin and clinical MRSA infections/1000 beddays also declined from 56.78 to 18.05 and 4.21 to 2.70 respectively. HH compliance improved from 40% to 51%, staff hand and nose colonisation reduced from 3.6% to 2.7%, however environmental contamination increased from 13.9% to 22.7%.

Conclusion: A co-ordinated intervention approach such as OCS appears to have been effective in reducing rates of MRSA transmission, infection and vancomycin usage, but background rates of MRSA colonisation remain high. Improved rates of HH compliance since the introduction of DeBug appear to be an important factor. Further surveillance in the initial study wards and additional wards will determine whether these preliminary results are sustainable.