

Detergent Cleaning Increases Transmition of Pathogens



Transmission of Staphylococcus aureus from dry surface biofilm

(DSB) via different types of gloves Shamaila Tahir MBBS, Grad Dip Inf&Immu, PhD1, Durdana Chowdhury MBBS, MPhil1, Mark Legge BAnVetBioSc1, Honghua Hu BSc, Grad DipSc, PhD, MASM1, Greg Whiteley BSc, PhD2, Trevor Glasbey BSc(Chem), PhD2, Anand K. Deva BSc(Med), MBBS, MS, FRACS1 and Karen Vickery BVSc(Hons), MVSc, PhD, MASM1 1Surgical Infection Research Group, Faculty of Medicine and Health Sciences (FMHS), Macquarie University, Sydney, New South Wales, Australia and 2Whiteley Corporation, Tomago, Newcastle, New South Wales, Australia

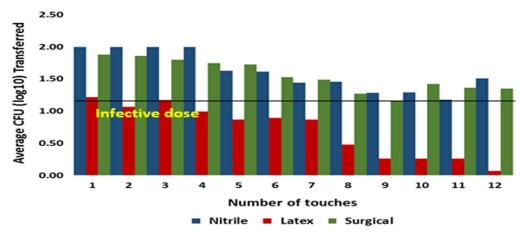


Fig. 3. Number of colony-forming units (CFU) of bacterial cells transmitted from untreated S. aureus dry-surface biofilm (DSB) per touch. Black horizontal line in the graph indicates the infective dose (15 cells/cm2 or 1.18 logs/cm2).

Treating the dried surface biofilm with 5% neutral detergent increased the transmission rate of dried surface bacteria 10-fold

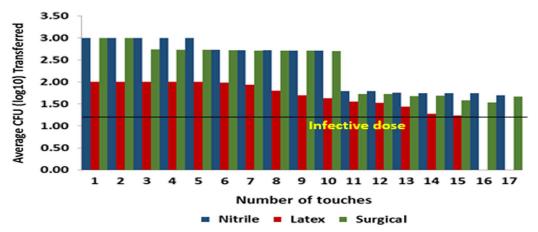


Fig. 4. Number of colony-forming units (CFU) of dry-surface biofilm (DSB) bacterial cells transmitted from detergent treated Staphylococcus aureus DSB with the number of touches. The infective dose is 15 cells/cm2 1.18 logs/cm2.