Abstract

BACKGROUND: Tablet computers are increasingly used in healthcare, but they may carry nosocomial pathogens. There are few data available on how to clean an iPad effectively for use in the clinical setting.

AIM: We aimed to identify the most effective method of decontaminating the Apple iPad, without causing damage, and establish the duration of any residual effect.

METHODS: Following contamination with a microbial broth (meticillin-resistant Staphylococcus aureus (MRSA), vancomycin-resistant enterococcus (VRE) and Clostridium difficile), we examined efficacy of iPad disinfection in the laboratory using six different disinfectant wipes: Sani-Cloth CHG 2% (chlorhexidine 2%/alcohol 70%), Clorox, Tristel, Trigene, soap and water, and plain cloth. Following cleaning, iPads were recontaminated to examine residual activity. After 480 Sani-Cloth CHG 2% disinfecting episodes, functional and visual analysis of iPads was performed by blinded subjects.

FINDINGS: With the exception of Clostridium difficile, Sani-Cloth CHG 2% and Clorox wipes were most effective against MRSA and VRE, and they were significantly better than the Apple-recommended plain cloth (P ≤ 0.001). A substantial residual antimicrobial effect was seen for >6h after wiping the iPad with Sani-Cloth CHG 2% despite repeated recontamination and without further disinfection. The functionality or visual appearance of the iPad was not damaged by repeated use of Sani-Cloth CHG 2% wipes.

CONCLUSIONS: Sani-Cloth CHG 2% wipes effectively disinfect the iPad against MRSA and VRE, with a residual antibacterial effect and without causing damage.

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KEYWORDS: Chlorhexidine; Decontamination; Personal digital assistant (PDA); Tablet computer; iPad

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