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## FLASHLIGHT ON LITERATURE

# Use of a daily disinfectant cleaner instead of a daily cleaner reduced hospital-acquired infection rates

**Authors** MJ Alfa, E Lo, N Olson, M MacRae, L Buelow-Smith

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The current study proves that surface cleaning and disinfection with high cleaning compliance is superior to mere surface cleaning in decreasing Hospital Acquired Infections (HAI).

### WHAT IS THE BACKGROUND

- Hospital-acquired infections (HAIs) have a significant impact on the patient quality of life and mortality as well as on the financial burden of the Healthcare setting.
- Inanimate surfaces have often been shown to be part of the transmission chain for pathogenic microorganisms causing HAI.

### WHAT IS THE STUDY DESIGN

- High-touch surfaces in patient and isolation rooms were daily disinfected with a ready-to-use cleaning and disinfection wipe, replacing a cleaning wipe without disinfection properties.
- HAI rates for MRSA, VRE and C. diff and cleaning compliance

### RESULTS

At a cleaning / disinfection compliance of above 80% a significant reduction of HAI with MRSA, VRE and C. diff compared to mere surface cleaning was demonstrated

### WHAT DOES THIS MEAN FOR YOU

- **Daily cleaning and disinfection of high-touch surfaces results in a reduction in HAI rates for MRSA, VRE and C. diff**
- **You need a minimum of 80% cleaning and disinfection compliance is needed to reduce HAI**
- **Fluorescent markers and UV lights help to monitor hygiene compliance**

#### ECOLAB HEALTHCARE EUROPE

Richtistrasse 7  
8304 Wallisellen  
Switzerland  
+41 44 877 2000  
www.ecolab.eu

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Major article

## Use of a daily disinfectant cleaner instead of a daily cleaner reduced hospital-acquired infection rates



Michelle J. Alfa PhD<sup>a,b,\*</sup>, Evelyn Lo MD<sup>b,c</sup>, Nancy Olson BSc<sup>a</sup>, Michelle MacRae<sup>c</sup>, Louise Buelow-Smith RN<sup>c</sup>

<sup>a</sup> St Boniface Research Centre, Winnipeg, MB, Canada

<sup>b</sup> Department of Medical Microbiology, University of Manitoba, Winnipeg, MB, Canada

<sup>c</sup> St Boniface Hospital, Winnipeg, MB, Canada

### Key Words:

Methicillin-resistant *Staphylococcus aureus*  
Vancomycin-resistant enterococci  
*Clostridium difficile*  
Housekeeping  
Environmental cleaning

**Background:** Documenting effective approaches to eliminate environmental reservoirs and reduce the spread of hospital-acquired infections (HAIs) has been difficult. This was a prospective study to determine if hospital-wide implementation of a disinfectant cleaner in a disposable wipe system to replace a cleaner alone could reduce HAIs over 1 year when housekeeping compliance was  $\geq 80\%$ .

**Methods:** In this interrupted time series study, a ready-to-use accelerated hydrogen peroxide disinfectant cleaner in a disposable wipe container system (DCW) was used once per day for all high-touch surfaces in patient care rooms (including isolation rooms) to replace a cleaner only. The HAI rates for methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant enterococci (VRE), and *Clostridium difficile* were stratified by housekeeping cleaning compliance (assessed using ultraviolet-visible marker monitoring).

**Results:** When cleaning compliance was  $\geq 80\%$ , there was a significant reduction in cases/10,000 patient days for MRSA ( $P = .0071$ ), VRE ( $P < .0001$ ), and *C difficile* ( $P = .0005$ ). For any cleaning compliance level there was still a significant reduction in the cases/10,000 patient days for VRE ( $P = .0358$ ).

**Conclusion:** Our study data showed that daily use of the DCW applied to patient care high-touch environmental surfaces with a minimum of 80% cleaning compliance was superior to a cleaner alone because it resulted in significantly reduced rates of HAIs caused by *C difficile*, MRSA, and VRE.

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Switzerland  
+41 44 877 2000  
[www.ecolab.eu](http://www.ecolab.eu)

