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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 [a,b,*], Evelyn Lo MD [b,c], Nancy Olson BSc [a], Michelle MacRae [c], Louise Buelow-Smith RN [c]

[a] St Boniface Research Centre, Winnipeg, MB, Canada
[b] Department of Medical Microbiology, University of Manitoba, Winnipeg, MB, Canada
[c] St Boniface Hospital, Winnipeg, MB, Canada

Key Words:
Methicillin-resistant *Staphylococcus aureus*
Vancomycin-resistant enterococci
Clostridium difficile
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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 ≥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 ≥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.