

DAILY USE OF OXIVIR WIPES REDUCED C diff, MRSA & VRE

Study by Michelle Alfa and others (AJIC, 2015)

Summary:

The daily use of Oxivir Wipes combined with high rate of cleaning compliance lead to a significant decrease in the rates of three important healthcare-associated pathogens: *C. difficile*, MRSA, and VRE.

The study showed that there were three key elements to achieve this reduction:

1. A clearly defined housekeeping protocol with education and assessment of staff
2. Routine housekeeping compliance monitoring with 80% compliance as a target
3. The use of an effective disinfectant

Study Description:

The 52-week study was undertaken in a 538-bed acute care tertiary hospital in Canada. A second hospital in the same city was used as a comparator. The intervention included the use of a disinfectant cleaner and disposable wiping system in patient care areas.

Prior to the study, only a neutral detergent was used for cleaning of environmental surfaces in the intervention hospital, and *C difficile* rooms were cleaned using a disinfectant cleaner.

A fluorescent marker system was used to measure cleaning compliance. Cleaning compliance on 15 high-touch surfaces was assessed in patient rooms (bedrooms and bathrooms), cleaning was considered acceptable if ≥80% of the fluorescent marks were partially or completely removed.

Cleaning and disinfection was performed by using a 0.5% Accelerated Hydrogen Peroxide® disinfectant cleaner that was applied to surfaces using disposable wipes. The non-intervention (control) site used a cleaner and cotton rags for environmental surfaces. No cleaning compliance validation was performed at the non-intervention hospital. Housekeeping personnel at the intervention hospital received same day cleaning validation results and feedback and were asked to re-clean sites that were not adequately cleaned.

Results:

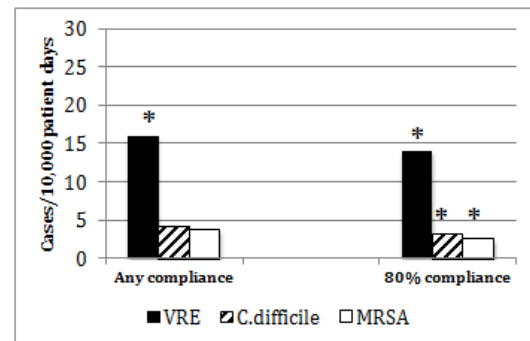
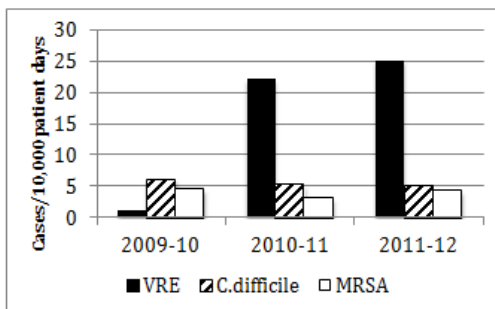
The change from a cleaner applied using cotton rags to a disinfectant cleaner applied using disposable wipes was the only change to housekeeping services over the 52-week study period at the intervention hospital.

The results of this intervention showed a significant reduction (20%) in the rates of MRSA ($P=0.0071$), VRE ($P \leq 0.0001$), and *C difficile* ($P = 0.0005$).

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

HAI Rates with Cleaner only

HAI Rates with Disinfectant-Cleaner in 2012-13



* Significant reduction in VRE rates (any cleaning compliance), and significant reduction of *C.difficile* and MRSA rates when a minimum of 80% cleaning compliance achieved.

This is the first study to demonstrate that significant reduction in *C. difficile* rates can be achieved by using a non-sporicidal disinfectant combined with adequate cleaning compliance. It also supports previous studies that showed the impact of adequate cleaning and disinfection on the rates of healthcare associated pathogens. **Most importantly, it emphasises the value of routine daily cleaning of high-touch surfaces in patient care areas.**