

Cleaning and disinfection in home care: A comparison of 2 commercial products with potentially different consequences for respiratory health

Goodyear et al, American Journal of Infection Control (2017)

This research paper describes a field study of two cleaning and disinfection products in 46 seniors' homes where the outcomes were ability to remove soil and microorganisms from household surfaces.

The two cleaning products were:

- environmentally preferable product
- conventional bleach-containing product

The results of the testing suggested that the environmentally preferable product and traditional bleach-containing product were both effective in removing microorganisms and the traditional bleach-containing product was only slightly more effective for soil removal than the environmentally preferable product. The two products were used in a manner that is typical of cleaning performed by home care aides in client homes.

Employers and other Stakeholders –

What is the relevance of the research findings?

The results of the study are relevant to home healthcare work because:

- More people receive complex care in their homes, therefore, cleaning and disinfection tasks are becoming increasingly important in home care
- Some home care clients may be at greater risk of infection due to illness or ongoing medical treatment
- Antibiotic resistant strains of disease-causing microorganisms may be brought into the home when a client has recently been discharged from the hospital
- The choice of cleaning and disinfection products for home care use would ideally achieve a balance between effective infection control and minimizing client and aide inhalation exposure to strong cleaners
- Strong disinfecting cleaners such as those that contain bleach may be no more effective than safer alternatives when it comes to surface cleaning (removal of soil)
- Environmentally preferable products may be as effective as the bleach-containing product for disinfection (removal of microorganisms)

Intervention Opportunities –

- Consider the health status of home care clients with particular regard to their susceptibility to infection and whether they may be undergoing treatment for antibiotic resistant disease-causing microorganisms

- Develop a clear understanding of the difference between surface cleaning (removal of soil) and surface disinfection (removal of microorganisms)
- Identify which cleaning products provide effective cleaning and which products provide disinfection
- Train home care aides to
 - make informed choices about whether cleaning is needed or cleaning and disinfection is needed for a particular home
 - understand which products provide cleaning and which provide disinfection
 - recognize that traditional disinfection products such as bleach may present inhalation hazards to both themselves and the client
 - use ventilation wherever possible when using disinfection products such as bleach