



# Hospital cleaning and disinfection: what is best practice?

**M**ost hospitals focus their efforts only on terminal cleaning of patient rooms, with less emphasis on daily cleaning. However, as Ivan Obreza\* from Diversey Care, Australia points out, this must change in order to achieve better patient outcomes.

There is clear evidence (Mitchell 2015, Otter 2013 and Hayden 2008) that the most contaminated environmental surfaces in hospitals are those close to the patient, and that the risk of cross-infection is higher if a new patient is admitted into a room previously occupied by an infected patient.

Cohen (2012) stated that 45% of the people who enter a surgical unit patient room are nurses. 23% are visitors. **The patient's bedrail is touched up to 256 times per day by different people. Yet it is disinfected only once.** And in many cases, probably not at all.

Thus we should not be surprised that high touch surfaces in the patient zone contribute to hospital-acquired infection (HAI) risk. It follows that more frequent disinfection at the point of care is important if we are to lower HAI rates and healthcare costs.

In her 2015 study published in the *American Journal of Infection Control*, Michelle Alfa showed that best practice is dependent upon the "3 Ps" of disinfection: the right product, the right process, and proof of cleaning compliance.

There is no magic "silver bullet" when it comes to selecting the right product. All disinfectants have some limitations or side effects. Some damage fabrics and equipment, others are not sustainable, and many leave sticky residue on surfaces.

Selecting the right disinfectant for a hospital is a matter of balancing the trade-offs between efficacy, surface compatibility and safety. Rutala & Weber (2014) argue that the cost of labour and the cost of infection should form part of a facility's calculation when evaluating the selection of the ideal disinfectant. They contend that the buy price of a particular product does not necessarily reflect its long term value as a safe, effective disinfectant.

With the advent of sporicidal products, very high-level disinfection – previously the domain of CSSD – is now available at the point of care. Sporicidals kill bacterial spores such as *C. difficile* without the toxicity associated with bleach. A sporicidal product should be considered where there is a high index of suspicion of *C. difficile* infection (CDI) e.g. diarrhoea with antibiotic administration.

Once the right disinfectant has been selected, the right process needs to be implemented. If cleaning time is limited, it makes no sense to disinfect ledges and window panes when the pathogens are concentrated on bedside tables, remote controls and bedrails.

Start at the bed, then work outwards. Clean the bathroom last.

Microfibre is a reliable platform as the cloths and mops mechanically remove pathogenic load that may be missed by inadequate disinfection.

A review of the available evidence to date suggests that the right process for best practice disinfection includes using disinfectant wipes at the point of care and encouraging their use by clinical staff. The simple act of using a disinfectant wipe on stethoscopes between patients is a good visible reminder of the need for a team approach to infection prevention.

Proof of cleaning compliance can be performed by cleaning supervisors or infection prevention nurses. Fluorescent ink validation with UV light leads to a clear improvement in cleaning effectiveness (Rutala & Weber, 2010).

Cleaners remain the last line of defence against HAIs. But with the increasing complexity of modern healthcare, we cannot expect cleaners to be the only line of defence. We each must play a part to optimise patient outcomes. It is incumbent upon us all to foster a team-centred approach to cleaning and disinfection.

## About Diversey Care

*We are the leading provider of smart, sustainable solutions for cleaning and hygiene. Through the integration of new technology-enabled services and systems, our solutions drive increased productivity, food safety and infection prevention to ultimately enhance the end-user experience.*

### References:

1. Cohen, et al. Frequency of patient contact with healthcare personnel and visitors: Implications for infection prevention. *Joint Commission Journal of Quality and Patient Safety*. 2012; 38 (12): 560-565.
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3. Rutala WA & Weber DJ. Selection of the ideal disinfectant. *Infection Control and Hospital Epidemiology*. 2014; 35: 855-865
4. Weber DJ, Rutala WA, Miller MB, Huslage K & Sickbert-Bennett E. Role of hospital surfaces in the transmission of emerging health care-associated pathogens: Norovirus, *Clostridium difficile* and *Acinetobacter* species. *American Journal of Infection Control*. 2010; 38: S25-S33.



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