Preventing infections through cleaner hospitals project

By Michelle Allen, Kate Halton, Lisa Hall, Emily Bailey and Nick Graves

While many Australian hospitals have good infection control practices, research about the role cleaning in the hospital environment plays in preventing infections is limited.

Numerous cleaning standards and guidelines exist, but translating this information into meaningful and sustained improvements in cleaning practice is challenging. Development of a bundle approach to improving environmental cleaning may provide a solution.

A bundle is a small, straightforward set of evidence based practices that when performed collectively and reliably improve patient outcomes (Resar et al 2005).

The Preventing Infections Through Cleaner Hospitals (PITCH) project has developed, implemented, and will evaluate, an environmental cleaning bundle to reduce healthcare associated infections (HAI). A structured literature review was used to identify evidence and a multidisciplinary expert panel was used to prioritise practices for inclusion. The five key areas identified were product use, cleaning technique, enhanced auditing, comprehensive training and improved communication.

The Promoting Action Research in Health Services (PARIHS) framework (Kitson et al 1998) was utilised for design and implementation and provided an easy to use, yet comprehensive process. Use of the framework during bundle development ensured that all relevant forms of evidence were considered, including clinical and user experience and local data as well as guidelines and scientific literature, and maximised stakeholder engagement. The framework was then used to guide implementation of the bundle into a large Brisbane hospital by mapping the process to the framework through a needs assessment of the hospital context (eg. leadership, systems and processes, culture). This helped to identify specific areas key to successful implementation, such as a need for improved nurse-cleaner communication, and better staff access to information and helped guide synthesis of information obtained from staff consultations and patient and staff surveys, to develop training resources. Ongoing monitoring has shown that use of the PARIHS framework enabled us to achieve high levels of stakeholder engagement and avoid delays in implementation. We are also already seeing improvements in cleaning practice.

Christine Welsh and Michelle Allen conducting cleaning audits as part of the PITCH project

To evaluate the PITCH bundle we will estimate its effectiveness in terms of changes to cleaning knowledge and performance, and infection rates and estimate its cost-effectiveness. Once this trial is complete, a randomised controlled trial called Researching Effective Approaches to Cleaning in Hospitals project (REACH) will be rolled out to 11 hospitals nationally, to demonstrate whether investing in an environmental cleaning program in acute hospitals reduces the risks of HAI and is cost-effective across a variety of settings. Based on our successes, the larger trial will again use the PARIHS framework to support implementation and evaluation of this complex intervention.

References

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Disclosure of interest: No conflicts of interest to declare. Ms Allen is supported by a scholarship funded through an NHMRC Centre of Research Excellence grant (1030103). Professor Nicholas Graves is supported by NHMRC Research Fellowship grant (1059565).

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