

No-touch taps help combat *C. diff* spread

Dart Valley's Mike Allen explains how no-touch taps can assist in the fight against an organism which continues to attract much attention.

C*lostridium difficile* has become another high profile healthcare acquired infection (HCAI). The importance of handwashing using liquid soap and water has been identified as a critical infection control measure.

Figures published by the Health Protection Agency in 2006 state: "Cases of *Clostridium difficile* infection in patients aged 65 years and above increased by 17.2% in England over the last year, from 44,107 in 2004 to 51,690 in 2005."

A recent article by *Cleveland Clinic Journal of Medicine* published on the CDC site provides some useful guidance: "*Clostridium difficile*-associated disease [CDAD] can range from uncomplicated diarrhoea to sepsis and even death. CDAD rates and severity are increasing possibly due to a new strain. Transmission of *C difficile* occurs primarily in healthcare facilities via the faecal-oral route following transient contamination of the hands of healthcare workers and patients; contamination of the patient care environment also plays an important role.

"The most effective means of decreasing horizontal spread of *C difficile* has been a combination of vigilant hand hygiene and use of isolation precautions.

"Alcohol is not effective in killing *C difficile* spores. Therefore if a hospital is experiencing an outbreak, it is prudent for healthcare workers to wash their hands exclusively with soap and water when caring for patients with known CDAD." The full report can be found online at www.cdc.gov

The DH also recommends: "Handwashing (not relying solely on alcohol gel as this does not kill the spores)" www.dh.gov.uk/PolicyAndGuidance

Informed healthcare professionals will be aware of the degree of difficulty for healthcare workers to clean their hands before and after every patient contact in general wards. None the less, failure to do so in certain circumstances could lead to passing on a potentially fatal infection to a patient.

Achievable goals

Hand hygiene compliance, however, still generally remains below 50%. To achieve significant improvements in hand hygiene we need protocols, which are "practical and achievable". Nurses, in certain instances, can be very busy, working in overloaded wards with less than ideal facilities. It is therefore important to recognise these obstacles and work towards cost-effective and practical improvements to help healthcare workers improve hand hygiene and thus provide a safer environment for patients.

The NPSA initiated the use of alcohol gel and the availability at each bed space. This is one important step towards improving facilities for hand decontamination.

No-touch taps are recommended in many of the Hospital Building Notes [HBNs]. The benefits of electronic no-touch taps include ease of use which encourages handwashing and reduced risk of contaminating hands.

C difficile is another reason why hand washing with liquid soap and water remains a critical part of hand hygiene and the importance should not be underestimated. Alcohol gel does not replace handwashing and the number and locations of clinical handwash basins is a very important factor in the quest to improve compliance in



hospitals. Hand hygiene protocols have always included washing hands with liquid soap and water following certain activities or if the hands are visibly soiled.

No-touch taps should be seriously considered. Water quality, risk of waterborne bacteria at tap outlets and around handwash basins also needs to be considered, particularly in areas with high risk patients. *Pseudomonas* is one such pathogen that can be waterborne or found in damp areas and causes around 10% of HCAI. *Pseudomonas* is transmitted via droplet and can be passed to patients via hands of carers, sometimes due to touching tap handles.

New HTMs give some consideration to water quality issues. However, electronic taps offer additional measures not available from manual taps such as automatic purging to avoid deadleg problems if taps are not used for an extended period. Thermal shock purging via a maintenance keyswitch [for safety] for decontaminating taps may also be worth considering, particularly in high risk patient areas.

The decision on the technology appropriate is not always straightforward, but warrants careful evaluation. Decisions are frequently affected by initial budgets, or individual's experiences. Consideration should be given to risks associated with manual taps, maintenance, ease of use, benefits to infection control, water quality, proven reliability, vulnerability of patients, initial investment and long-term benefits. +



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