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EDITORIAL

Hand hygiene promotion: 5 moments, 5 components, 5 steps, and 5 May 2009

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Low staff compliance with hand hygiene practices remains a major problem in most healthcare settings worldwide. Indeed, when appropriate methodology is used to assess compliance, it rarely exceeds 30%.[1] Successful hand hygiene promotion requires a multimodal strategy. Based on earlier experiences at single institutions and hospital networks,[2-5] the World Health Organization (WHO) proposes an approach including at least five components: system change, in particular the recourse to alcohol-based hand rubbing as the standard of care, staff education using newly developed tools, monitoring and feedback of staff performance, reminders in the workplace, and promotion of an institutional safety climate.[1,2] A five-step implementation strategy and related tools are proposed and have been tested in a large number of healthcare settings in both limited and high resource countries.[6] Early results are extremely encouraging.

The findings by Chittaro and colleagues in this issue of the Journal are of interest. The authors observed hand hygiene practices immediately (at seven and 30 days) after the introduction of alcohol-based hand rub in three areas of their hospital. In this approach, none of the four additional components of the multimodal strategy was introduced. As expected, compliance increased modestly from around 20% to 26-27%. Interestingly, even in a setting where overall compliance remained relatively low and where hand rubbing was used in only one-third of hand hygiene activities by a minority of healthcare workers, the recourse to alcohol-based hand rub contributed to bypass the time constraint and improve compliance, thus confirming earlier results.[7]

Similar to reports from a large number of studies conducted in different healthcare worker populations around the globe over more than a decade,[1] staff appeared to be more concerned by their own safety than that of their patients. This observation is universal. When studies are conducted using appropriate observation methods, compliance with hand hygiene practices after contact with patients or exposure to their body fluids (i.e., to protect staff) is always higher than before touching a patient or a device used to monitor vital signs or administer a therapy (i.e., to protect the patient). The “My five moments for hand hygiene” concept[8] has been

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designed to monitor, feedback, educate, and promote correct healthcare worker practices at appropriate times, and it constitutes one of the cornerstones of the WHO multimodal implementation strategy (Figure 1).

Easy and facilitated access to alcohol-based hand rub at the point of patient care is a key component of the multimodal approach and such a system change is a prerequisite for success. However, it is not sufficient as a single measure alone,[9] and its integration among the other components is critical to achieve behaviour modification and sustainability.[1,2,4,5] Results such those presented by Chittaro and colleagues are typical of an early implementation phase; it takes time and the interaction of multiple components to catalyse and integrate behavioural change into daily practice.[2]

Long-term sustainability and its subsequent impact on the reduction of healthcare-associated infection and spread of antimicrobial resistance require also leadership support and organisational climate change at local, regional, and international level.[10] In particular, the past five years have been marked by the recognition of most expert and professional societies of the critical importance of revisiting hand hygiene in healthcare. Of note, the International Federation of Infection Control

Figure 1. The "Your 5 moments for hand hygiene" leaflet.[8] As part of any hand hygiene strategy, it defines the key moments for hand hygiene

(IFIC) has set up a hand hygiene interest group to conduct a project using qualitative and quantitative research methodology to determine the most effective ways to entrench WHO hand hygiene guidelines into healthcare organizations around the world (http://www.theific.org/sigs1.asp, accessed 14 January 2009).

Of 192 United Nations' Member States, 116 ministries of health have endorsed the WHO "Clean Care is Safer Care" initiative and its hand hygiene promotion strategy in only three years between October 2005 and October 2008.[11] Hundreds of healthcare settings around the world have implemented the strategy regardless of their resource level. This five-step implementation strategy, comprising at least five components and including the use of the "My five moments for hand hygiene" tool, ensures that the five fingers of both healthcare workers' hands are clean and safe for patient care. It is therefore not surprising that 5 May 2009 (5.5.2009) has been chosen by WHO as the date of the First World Hand Hygiene Summit where all healthcare facilities worldwide are invited to promote hand hygiene at the point of care (http://www.who.int/gpsc/5may/en/index.html, accessed 14 January 2009) and to catalyse global action to save patient lives. Mark your diary now!

References

1. WHO Guidelines for Hand Hygiene in Health Care (Advanced Draft). Geneva: World Health Organization, 2006.
2. Pittet D, Hugonnet S, Harbarth S, *et al*. Effectiveness of a hospital-wide programme to improve compliance with hand hygiene. Infection Control Programme. *Lancet* 2000; **356:** 1307-1312.
3. Johnson PD, Martin R, Burrell LJ, *et al.* Efficacy of an alcohol/chlorhexidine hand hygiene program in a hospital with high rates of nosocomial methicillin-resistant *Staphylococcus aureus* (MRSA) infection. *Med J Aust* 2005; **183:** 509-514.
4. Pessoa-Silva CL, Hugonnet S, Pfister R, *et al*. Reduction of healthcare associated infection risk in neonates by successful hand hygiene promotion. *Pediatrics* 2007; **120:** e382-390.
5. Grayson ML, Jarvie LJ, Martin R, *et al*. Significant reductions in methicillin-resistant *Staphylococcus aureus* bacteraemia and clinical isolates associated with a multisite, hand hygiene culture-change program and subsequent successful statewide roll-out. *Med J Aust* 2008; **188:** 633-40.
6. Pittet D, Allegranzi B, Storr J. The WHO Clean Care is Safer Care programme: field-testing to enhance sustainability and spread of hand hygiene improvements. *J Infect Publ Health* 2008; **1:** 4-10.
7. Hugonnet S, Perneger TV, Pittet D. Alcohol-based handrub improves compliance with hand hygiene in intensive care units. *Arch In Med* 2002; **162:** 1037-1043.
8. Sax H, Allegranzi B, Uckay I, Larson E, Boyce J, Pittet D. "My five moments for hand hygiene": a user-centred design approach to understand, train, monitor and report hand hygiene. *J Hosp Infect* 2007; **67:** 9-21.
9. Muto CA, Sistrom MG, Farr BM. Hand hygiene rates unaffected by installation of dispensers of a rapidly acting hand antiseptic. *Am J Infec Control* 2000; **28:** 273-276.
10. Pittet D, Donaldson L. Clean Care is Safer Care: a worldwide priority. *Lancet* 2005; **366:** 1246-1247.
11. Allegranzi B, Pittet D. Preventing infections acquired during health-care delivery. *Lancet* 2008; **372:** 1719-1720.