Improving adherence to hand hygiene practice

In this article...

 › Problems with promoting consistent hand hygiene practice
 › Benefits of a multimodal approach
 › How nurses can reduce the spread of infections

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Abstract
Storr J, Kilpatrick C (2013)
Hand hygiene compliance rates continue to vary between healthcare settings and individual professionals. This article looks at how a multimodal approach to infection prevention and control, using expertise from other disciplines, can increase compliance with hand hygiene practices.

Infection prevention and control teams work with staff in complex socio-technical systems to help them play their part in preventing infections. This aspect of the role can be particularly challenging. Vincent (2010) describes patient safety as “a tough problem” in cultural, technical, clinical and psychological terms.

Infection prevention and control – particularly hand hygiene compliance – is a key component to maintaining patient safety; however, bridging the gap between evidence and practice, and engaging health professionals and senior management in evidence-based infection-control practices remains an ongoing challenge.

Recent evidence has shown the effectiveness of clinical interventions in controlling the spread of infection – for example the work of Berenholtz et al (2004) in reducing catheter-related bloodstream infections in intensive care units. The impact of such interventions can be enhanced if we look beyond conventional approaches to other disciplines, such as psychology, neuroscience and ergonomics. Integrating other disciplines in approaches to hand hygiene, particularly the social sciences, has been successful to date but hand hygiene compliance is still not being sustained at an acceptable level.

This multifactorial approach to improving hand hygiene is grounded in behavioural science. It has been pioneered by the World Health Organization (2009), from whose website a toolkit of implementation resources is available.

Why is hand hygiene missed?
Hand hygiene is relatively simple to perform. However, embedding it as a habitual behaviour in healthcare, which is performed at the right times as an automatic activity, is far more complex for a number of reasons (Kilpatrick et al, 2013; WHO, 2006).

Anderson et al (2010) give five common reasons for hand hygiene behaviours not being adequately adhered to (Table 1); these provide a solid starting point to explain the complexity of hand hygiene. This research challenges the belief that infection prevention and control and hand hygiene are a matter of common sense, and encourages those working in this area to consider human factors when developing approaches to educate health professionals. These approaches are more likely to improve compliance with guidelines and recommendations.

Using a multimodal approach
Considering the factors summarised in Table 1, it is clear that a single-focused approach is unlikely to work, especially as it is well established that hand hygiene compliance rates are variable. An approach that focuses solely on education and training,
Hand hygiene knowledge and compliance found that it can significantly improve in six pilot sites across five countries and a framework continuum. The desired outcome of appropriately timed hand hygiene action is only the lack of an undesirable outcome – infection – and this outcome is not immediately noticeable. Similarly to the point made above, as there is often no obvious positive result due to hand hygiene, it is difficult to connect action and outcome – again impacting on health professionals’ motivation.

Tasks such as hand cleansing are sometimes perceived as not convenient. Hand cleansing is likely to be dropped or forgotten in a busy working environment. This challenge should be addressed through knowledge enhancement and “cues” to action.

Concurrent clinical activities demand immediate cognitive and physical energy and hand hygiene is often seen as separate, not integral, to the main task. Other demanding tasks do not have delayed feedback and are often more strongly associated with positive results than hand hygiene. Again, the inability to observe the “initiation” of an infection in relation to a particular clinical task, and the invisibility of microbes, makes it difficult to keep hand hygiene part of everyday practice. This means the importance of hand hygiene must be raised on an ongoing basis.

There are very few naturally embedded cues to prompt health professionals to perform hand hygiene within their routine workflow. A naturally embedded cue occurs during the course of a task and signals what to do next. In relation to hand hygiene, there is no physical barrier to prevent a practitioner touching a patient if a hand hygiene action has not occurred. Additionally, if hand hygiene is seen to disrupt the workflow, health professionals may purposefully skip it. Effective cues must be manufactured, tested and strategically placed.

Table 1. Why Hand Hygiene Remains a Challenge

<table>
<thead>
<tr>
<th>Why hand hygiene is difficult</th>
<th>What this means</th>
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<tr>
<td>Health professionals are asked to perform hand hygiene practice but the action does not have a direct and immediately observable result</td>
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Source: Adapted from Anderson et al (2010)

References


Role of nurses

Nurses play a key role in promoting many elements of hand hygiene, including:

» Motivating other staff to perform hand hygiene during clinical activities as recommended in Five Moments for Hand Hygiene (WHO, 2006);

» Helping design and place reminders to prompt professionals to perform hand hygiene during clinical activities;

» Providing information on the flow of patient care to advise where alcohol handrub would be best placed;

» Being willing and committed to revisiting, relearning and gaining understanding of the need for hand hygiene at the right times to prevent infection and save lives, and cascading this information to colleagues.

Conclusion

It is important to draw on available resources and solutions to improve our approach to infection prevention. Reviewing where an organisation sits on the hand hygiene improvement continuum using WHO’s self-assessment framework is an essential starting point.

The implementation of a targeted multimodal improvement strategy has been shown to reduce unnecessary patient harm and increase patient safety. Nurses have the knowledge and experience to play a key role in ensuring ongoing hand hygiene action and can act as vital links between other disciplines. NT