Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

International Journal of Orthopaedic and Trauma Nursing 39 (2020) 100819

Contents lists available at ScienceDirect

International Journal of Orthopaedic and Trauma Nursing

journal homepage: www.elsevier.com/locate/ijotn

Editorial

We need to talk about hand hygiene: A time to reflect on compliance

The hands of care workers are the most common source of infection transmission during healthcare. Hand hygiene, the practice of decontaminating the hands by washing with soap and water or using alcohol hand rub, is the elementary method for breaking the chain of infection. This is a universally acknowledged fact based on more than one and half centuries of evidence which, in nursing, began with Florence Nightingale. It involves an extremely cheap and relatively simple set of steps that can be performed by anyone in less than a minute and is a fundamental skill taught to all health professionals at the beginning of their career. Performing hand hygiene at the right time, every time and in the right way should, therefore, be a basic activity carried out by every health care practitioner. So much so, that if you ask anyone working in a care setting if they always comply with hand hygiene, they will always say that they do: simply because it would be unthinkable to admit that they do not. And yet, there is strong evidence that this is not the case and that performing hand hygiene is often missed.

It is worth noting, of course, that there is a significant problem with hand hygiene compliance in the general population. All around the world, for example, public adherence to hand washing practice following use of a public toilet is an extremely long way from 100%, depending on individual and local culture and customs. There are many reasons for this (although not the topic of this editorial) that highlight the complexity of infection prevention in communities.

It is tempting to think that everyone is currently increasing their compliance with hand hygiene just because of the risk of contracting or transmitting the COVID 19 virus. It may well be that experience of the current pandemic will encourage both health care workers and their local communities to embed hand hygiene in their everyday lives and practice. As we are already discovering, however, the mere threat of contracting or passing on a potentially fatal viral infection is not leading to compliance in many of the measures designed to prevent transmission. This is despite the fact that evidence indicates that health care staff are more likely to conduct hand hygiene when they perceive an infection threat to themselves and their families (White et al., 2015), rather than their own likelihood of transmitting infection to those in their care.

Given the wealth and strength of evidence, and with national and international guidance that hand hygiene is an effective method for preventing infection, it is remarkable that compliance among healthcare workers is not higher (Lynch et al., 2020). Erasmus et al. (2010), in a systematic review, found an overall median compliance rate of 40%, indicating that 60% of hand hygiene opportunities are missed, resulting in significant risk to patients, the community and healthcare workers themselves. In fact, researching hand hygiene compliance is difficult because of the 'Hawthorne' effect that supports greater compliance when staff know they are being observed, so these findings may belie a situation worse than that reported.

The reasons for poor compliance with hand hygiene among nurses and other health care workers are complex, but the literature suggests that the following are part of the picture (Erasmus et al., 2010; Saldu-le-Rios and Aguilera, 2017):

- High activity/workload level and understaffing
- Difficulty accessing hand hygiene resources such as running water and soap
- Lack of education
- Lack of leadership

So, what can we all do to improve hand hygiene compliance in ourselves and our colleagues? What works? There is always a temptation to go for a common and 'simple' option by putting up signs exhorting staff, patients, families, and visitors to wash their hands. We know, however, that this does not work. Birnbach et al. (2017) conducted an observational study to assess the impact a sign designed by a government organisation along with a second evidence-based sign designed by a team of patient safety experts. Hand hygiene compliance following the implementation of the signs was demonstrated to be only 16% and was not significantly different between the two signs. Glossy leaflets are likely to have the same result.

Literature suggests that situations associated with higher hand hygiene compliance rates include (Sands and Aunger, 2020).

- Tasks which are perceived as 'dirty' such as handling body fluids
- Accessibility of materials and equipment
- The introduction of alcohol-based hand rub or gel
- Performance of peers – 'example setting'
- Performance feedback
- Good leadership and communication

The answers are obvious then. Nursing and multidisciplinary teams need to talk to each other. They need to acknowledge that their team and individual compliance rates need to be improved and work together under supportive leadership to seek improvements through education, discussion, and peer feedback. This also needs to be sustained. A systematic review (Doronina et al., 2017) found that education and feedback on compliance declined one month after the intervention.

That is all very well, but what does this really mean to you, the person who is reading this editorial? It means that you should start a conversation: with one or more colleagues. Talk about how difficult it is to admit that you do not always comply with good hand hygiene

https://doi.org/10.1016/j.ijotn.2020.100819

Available online 4 September 2020

practice. Discuss, in a supportive and non-judgemental way, how you could work towards improving compliance as a team. How might you be able to deliver repeated education and good, honest, constructive feedback to each other? Then sustain that effort permanently.

Of course, that is much more complex than it sounds. So, begin by asking yourself a question. Do I care about this enough to start a conversation?

References

Birnbach, D.J., Rosen, L.F., Fitzpatrick, M., Everett-Thomas, R., Arheart, K.L., 2017. A ubiquitous but ineffective intervention: Signs do not increase hand hygiene compliance. Journal of Infection and Public Health 10 (3), 295–298. https://doi.org/10.1016/j.jiph.2016.05.015.

Doronina, O., Jones, D., Martello, M., Biron, A., Lavoie-Tremblay, M., 2017. A systematic review on the effectiveness of interventions to improve hand hygiene compliance of nurses in the hospital setting. J. Nurs. Scholarsh. 49 (2), 143–152.

Erasmus, V., Daha, T.J., Brug, H., et al., 2010. Systematic review of studies on compliance with hand hygiene guidelines in hospital care. Infect. Control Hosp. Epidemiol. 31 (3), 283–294. https://doi.org/10.1086/650451.

Lynch, N. Mahida, Oppenheim, B., Gray, J., 2020. Washing our hands of the problem. J. Hosp. Infect. 104 (4), pp401–403. https://doi.org/10.1016/j.jhin.2020.03.010.

Sadule-Rios, N., Aguilera, G., 2017. Nurses' perceptions of reasons for persistent low rates in hand hygiene compliance. Intensive Crit. Care Nurs. 42, pp17–21. https://doi.org/10.1016/j.iccn.2017.02.005.

Sands, M., Aunger, R., 2020. Determinants of hand hygiene compliance among nurses in US hospitals: A formative research study. PloS One 15 (4), e0230573. https://doi.org/10.1371/journal.pone.0230573.

White, K.M., Starfelt, L.C., Jimmieson, N.L., et al., 2015. Understanding the determinants of Australian hospital nurses' hand hygiene decisions following the implementation of a national hand hygiene initiative. Health Educ. Res. 30 (6), 959–970. https://doi.org/10.1093/her/cyv057.

Julie Santy-Tomlinson

E-mail address: juliesanty@tomlinson15.karoo.co.uk.