TORK Think ahead.

University Hospital to use breakthrough technology to improve hand hygiene and tackle healthcare associated infections (HAI)

Background

Healthcare Associated Infections (HAI) is a serious challenge to any modern hospital. A recent study from the UK suggests that 21% of the available beds throughout NHS England are occupied by patients with an infection acquired in the hospital.[1] It is a well-known fact that improved hand hygiene according to the "WHO my 5 moments for hand hygiene" is important to decrease HAIs and that as much as 30-50% of all HAIs may be attributed to lack of hand hygiene compliance.[2] Another recent study from the UK indicates the importance of increased hand hygiene in terms of lives saved and costs and infections avoided.[3]

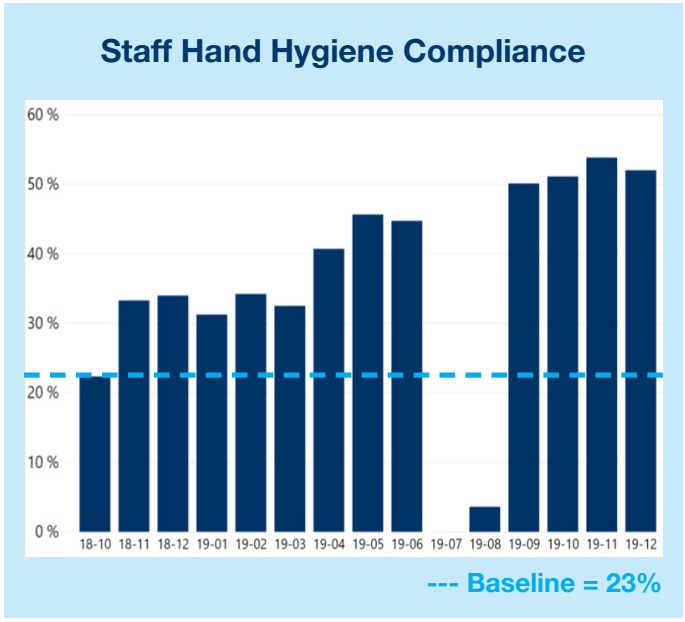
Modern hospitals are of course aware of this and regularly measures hand hygiene compliance by the only method available to them: manual observation. The challenge is that manual observation typically over-estimate the true compliance via e.g. the Hawthorne effect, quantified to as much as a factor 3, giving the organization a false sense of security. Typical values from manual observation is 80-100% compliance whereas scientific studies report that 'real world' compliance generally is of the order of 10-40%.[4]

The innovation

Sahlgrenska University Hospital in Sweden has, together with Essity Hygiene and Health AB tested and developed an automatic hand hygiene monitoring system (Tork Hand Hygiene Compliance Monitoring System) that automatically, objectively and continuously measures individual hand hygiene compliance in clinical practice in one ward. The measured results have been fed back to the nurses in real-time, both individually and as a team. The overarching goal has been to inspire and motivate staff to an increased level of hand hygiene compliance.

The preliminary results from the start in October 2018 through 2019 indicates that the compliance at the ward has more than doubled; from the baseline value of 23% (which is a perfectly normal value reflecting 'real world' compliance) to a team average of more than 50%. This is a significant achievement of the ward and a strong indication that the Tork Hand Hygiene Compliance Monitoring System can inspire a ward to more than double their compliance rate.

A research team led by Annette Erichsen Andersson, associated professor at the Institute of Health and care sciences at the University of Gothenburg will now further validate and explore the clinical use of the Tork Hand Hygiene Compliance Monitoring System.



[1]Guest JF, Keating T, Gould D, et al; Modelling the annual NHS costs and outcomes attributable to healthcare-associated infections in England; BMJ Open 2020;10:e033367. doi: 10.1136/bmjopen-2019-033367 // https://bmjopen.bmj.com/content/10/1/e033367
[2]https://www.who.int/gpsc/5may/background/5moments/en/
[3]Guest JF, Keating T, Gould D, et al. Modelling the costs and consequences of reducing healthcare-associated infections by improving hand hygiene in an average hospital in England. BMJ Open 2019;9:e029971. doi:10.1136/ bmjopen-2019-029971
[4]Gould et al , JIP 2020

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