Improving Hand Hygiene Compliance Among Doctors

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Introduction
Healthcare-associated infections (HAIs) result in high morbidity and mortality. The Joint Commission, World Health Organization (WHO) and Centers for Disease Control (CDC) recommend hand hygiene practices to reduce HAIs. Studies have shown that hand hygiene compliance is commonly lowest amongst doctors and this has also been shown to be true in Singapore General Hospital (SGH) from audits done by the Infection Control Department.

Method and aim
A pilot project was conducted in 2015 in one medical ward at SGH with the aim to improve hand hygiene compliance amongst doctors. Successful initiatives were then spread to all medical wards at SGH with aim to increase doctors’ hand hygiene compliance by 10% within 6 months.

Intervention
We illustrated the various possible causes that may result in poor hand hygiene compliance by doctors in our institution in Fig 1. A Pareto Chart was then used to identify main root causes and improvement initiatives identified using a prioritization matrix (see Fig 2).

Pilot Project Intervention
Intervention 1: Putting up of hand hygiene posters at head of each patient’s bed.

Intervention 2: Hand hygiene educational videos at lectures and meetings of the Department of Internal Medicine.

Intervention 3: Medical students were empowered to be hand hygiene advocates to enforce hand hygiene on doctors during ward rounds.

Results of Pilot Study
Median hand hygiene compliance increased from a pre-intervention rate of 36.4% to 55.6% and 80.0% after PDSA 1, 2 and 3 respectively (Fig 3).

Discussion
The median hand hygiene compliance rate increased from a baseline of 53.8% to 75%, with a median compliance of 69.4% (Fig 5). The hand hygiene moment with the least compliance identified was moment 5 (after touching patient’s surroundings), with 37.1% compliance (Fig 6).

We have demonstrated that the use of hand hygiene advocates (medical students and junior doctors) with senior doctors support can help to improve compliance amongst doctors during their daily clinical rounds. These advocates give timely reminders by offering alcohol-based hand rub agents to the clinical team during the morning rounds.

Conclusion
To sustain this good result, these results are shared at the Division of Medicine meeting to affirm continued role of these advocates.

We are now looking to spread these initiatives to the surgical wards with the aim of improving the compliance of all the doctors in SGH.

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