

The effect of teaching in improvement of five moments of hand hygiene among healthcare workers in Emergency Department Shah Alam

Lim Fang Jen, Ranjini Sivaganabalan, Shonita Das
Hospital Shah Alam

NMRR NO: NMRR-20-71-52889

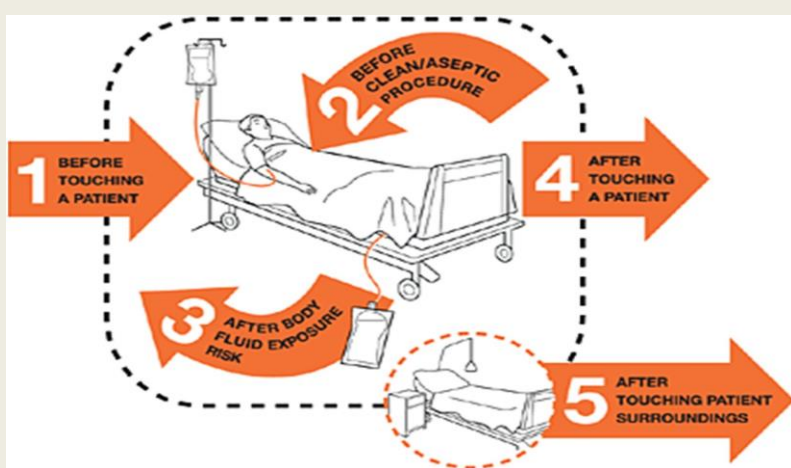
Introduction

Data shows poor hand hygiene compliance in busy emergency department prompted a quality improvement initiative to improve hand hygiene compliance. To date, there have been no comprehensive reviews on hand hygiene in emergency department (ED) within Malaysia. The aim of this study was to investigate hand hygiene compliance rate and to measure the impact of intervention on hand hygiene compliance among staff in the emergency department.

Materials and methods

This is a clinical audit conducted in emergency department of Hospital Shah Alam for a month. A prospective 2 phase pre and post intervention study to determine compliance of hand hygiene and the effect of intervention, via single blinded randomization. This study included emergency physician (EP), medical officers (MO), house officers (HO), staff nurses (SN) and medical assistants (MA) / compulsory placement program (PPW) who worked in Emergency Department, Hospital Shah Alam. The intervention included regular reminders via social media, online continuous medical educations, educational hand hygiene video sharing, rewards, and interviewed staff with poor compliance of hand hygiene.

Figure 1. Five moments of hand hygiene



Results

Total of 36 healthcare professionals participated in the study. The compliance rate was 55.6% in the pre intervention phase. Compliance minimally increases to 59.76% after intervention (Figure 2).

Figure 2. The overall results of pre and post intervention among Emergency Department Staff

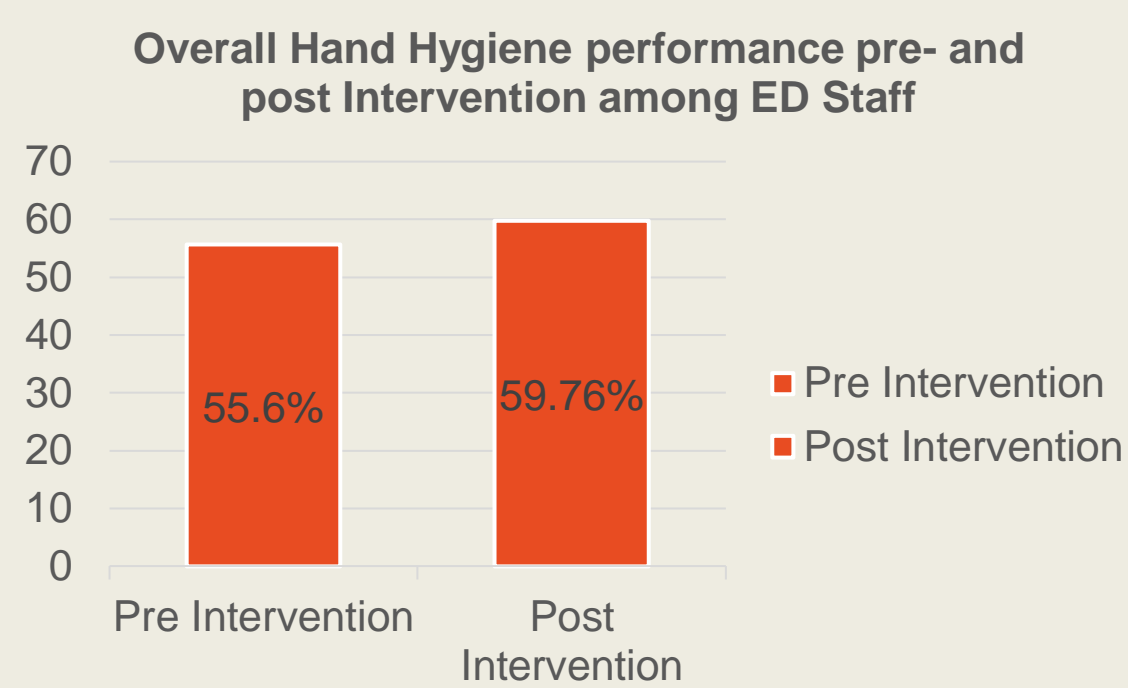
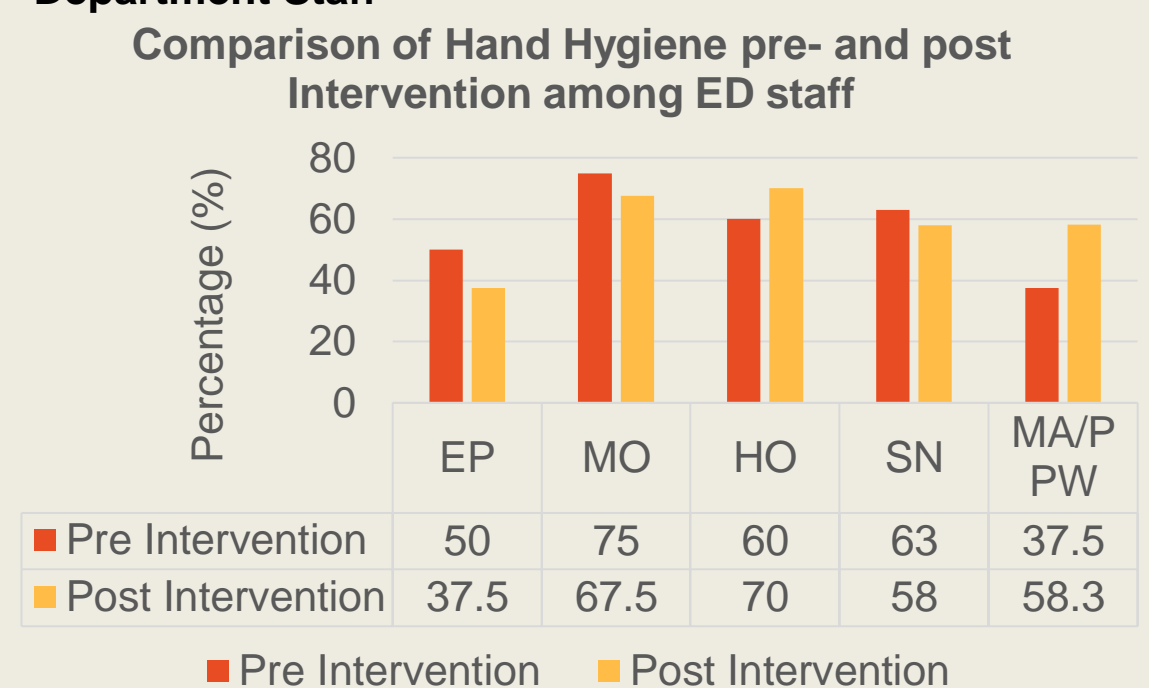


Figure 3. The Comparison of Hand Hygiene between results pre and post intervention among Emergency Department Staff



This study showed 2 groups (HO and MA/PPW groups) with post intervention improvement, whereby another 3 groups (EP, MO and SN groups) with poorer performances post intervention (figure 3).

Discussion

In general, the hand hygiene compliance among emergency staff was low, which beyond satisfactory level of 75% being set by Hospital Shah Alam Infection Control Unit. Inadequate educational program to promote knowledge and awareness could be one of the factors contributed to poor compliance to hand hygiene. Literatures showed hand washing knowledge among majority of health care staff were found to be moderate (Deepak et al., 2020; Thakker & Jadhav, 2015). Another important contributing factor was overcrowding in Emergency department (Bagherian & Hosseini, 2019). It is noteworthy that this study was conducted in the mist of COVID-19 pandemic outbreak. Other possible factors contributed to the low rate of hand hygiene practice are hand sanitizers or hand soap availability and distribution within the emergency setting, skin irritation, and absence of peer-to-peer monitoring.

Conclusion

Hand hygiene compliance was low in Hospital Shah Alam ED setting. Compliance rates remain unsatisfactory despite measures implemented. The review findings indicate that there is a room for improvement in hand hygiene in EDs. Future multilevel modalities are necessary to advocate hand hygiene compliance in EDs.