



Training impacts compliance with hand hygiene in an Intensive Care Unit

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Background and Objective

Hospital infections (HI) are a matter of concern when it comes to ensuring patients' safety. Nevertheless, 30% of all HI are preventable, and there is convincing evidence that hand hygiene is the most effective measure to prevent HI. Practicing hand hygiene is a simple yet effective way to prevent infections. Cleaning your hands can prevent the spread of germs, including those that are resistant to antibiotics and are becoming difficult, if not impossible, to treat. On average, healthcare providers clean their hands less than half of the times they should. In this context, this study aimed to evaluate compliance to hand hygiene practices before and after simulated training in an Intensive Care Unit.

Methods

This is a quasi-experimental, before and after study conducted between January and July, 2016. The participants comprised health professionals working at the investigated Intensive Care Unit (ICU) (fixed team).

Training consisted in a lesson about the five WHO moments and in the application of a solution that was visible under fluorescent light to evaluate the quality of the handrubbing technique.

To evaluate the compliance with hand hygiene procedures, at least 200 opportunities were observed in each of the study phases (before and after training), which agreed with the minimum recommendation made by the World Health Organization (WHO).

Each observation session lasted 20 minutes and they were performed by trained observers, affiliated to the local infection control service. To assess the compliance with hand hygiene, opportunities were defined according to the five WHO moments. All the opportunities were computed, and a percent ratio of professionals' compliance was calculated before and after training.

Results and Discussion

A total of 50 professionals were assessed and trained during the study. Of these 50 professionals, 37, 10, and 3 belonged to the nursing team, to the medical team, and to the physiotherapy team, respectively.

Opportunities for hand hygiene amounted to 212 and 320 before and after training, respectively. Table 1 lists the percent compliance to hand hygiene practice before and after training.

Table 1. Compliance with hand hygiene by healthcare professionals working in an Intensive Care Unit, before and after training. Ribeirão Preto, São Paulo, Brasil, 2016

	BEFORE TRAINING		AFTER TRAINING	
	OPP. (n)	COMPLIANCE (%)	OPP. (n)	COMPLIANCE (%)
BEFORE CONTACT WITH THE PATIENT	70	6%	66	61%
BEFORE ASEPTIC PROCEDURE	18	89%	50	96%
AFTER CONTACT WITH FLUIDS	20	100%	48	100%
AFTER CONTACT WITH THE PATIENT	64	88%	94	100%
AFTER CONTACT WITH SURFACES	40	75%	62	85%
OVERALL COMPLIANCE	212	72%	320	88%

Conclusion

In-service training is a relevant strategy to improve hand hygiene practice among healthcare professionals. This practice should be stimulated in order to reduce hospital infections, which are a major public health issue.