



A multimodal intervention to improve hand hygiene in ICUs in Buenos Aires, Argentina: a stepped wedge trial

Randomized cluster-stepped wedge trial

performed by the Institute for Clinical Effectiveness and Health Policy (IECS) in cooperation with the Association of Nurses for Infection Control (ADECI), Patient Safety Programme, World Health Organization and the Study Center for State and Society (CEDES)

WHAT WAS INVESTIGATED?

- Investigation of the **effect of multimodal intervention on hand hygiene compliance (HHC)** in intensive care units (ICUs) from 11 hospitals in Buenos Aires
- Components of the intervention:
 - Leadership commitment
 - Surveillance and steady supply of material
 - Reminder for hand hygiene
 - Storyboards with results of the observation, pictures from the hygiene team
 - Feedback

WHAT WAS THE RESULT?

- Intervention was effective to improve HHC **by up to 27 %**

Implementation of a multimodal intervention bundle can improve hand hygiene compliance.





BACKGROUND

To prevent healthcare associated infections hand disinfection is the most efficient and cost-effective method. Since 2005, WHO (World Health Organization) therefore has campaigned for hand hygiene – however, the compliance is often not satisfactory. Also, intensive care units, where greatest caution should be exercised due to the weakened patients, are no exception to the rule: the compliance is often even worse here than in normal wards.

GOAL

Rodriguez *et al.* conducted a randomised cluster-stepped wedge trial to investigate how a multimodal intervention influences the compliance in Argentinian intensive care units.

DESIGN AND METHODS

First, Rodriguez *et al.* interviewed 38 nurses and physicians to detect specific obstacles and problems linked to compliance. Based on the interviews, the authors then developed a multimodal intervention that comprised the following five modules:

1. A declaration of commitment by the management to support the intervention
2. Daily checks whether hand disinfectants and soaps are available
3. Use of eye-catching reminders
4. Introduction of a storyboard with the management’s declaration of commitment, monthly progress and photos of the healthcare workers
5. Provision of monthly progress reports for the facility’s coordinator, including comparisons with other participating facilities or international compliance rates

During the study period of nine months between August 2011 and May 2012, the intervention was introduced in 11 ICUs at different time points. Uninvolved observers monitored the employees’ compliance following the 5 Moments of WHO. On three random days per week, at least 30 employees were observed for one hour.

RESULTS

Before the intervention, the baseline of hand hygiene compliance in all facilities was 62 %. After the intervention the individual wards were able to improve by up to 26.7 %. With the control group achieving a compliance of 66 %, the compliance after the intervention’s introduction increased to 75.6 %.

CONCLUSION

With their study Rodriguez *et al.* could prove that a multimodal intervention can increase the hand hygiene compliance in intensive care units.

Figure 1: The absolute difference of the global HHC

