

Short Communication

Usefulness of a Hand Hygiene (HH) Promoting Campaign with Patient Implication

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In the context of patient care, the hands can transmit pathogens directly through person-to-person contact or indirectly from previously contaminated objects. Despite the fact that they are clearly avoidable, healthcare related infections are recorded in approximately 5% of all patients admitted to hospital. Hand Hygiene (HH) is considered to be a key technique for preventing infections of this kind. Although HH for reducing the transmission and spread of microorganisms is easy to apply, compliance is very low. In 2005, the World Health Organization proposed a series of multimodal strategies for improving compliance with washing techniques, based on education of the health professionals, reminders, feedback and improved accessibility to alcoholic disinfection solutions [1,2]. Thus, promotion of behavioral change for improved hand hygiene compliance remains an ongoing challenge for infection prevention programs.

The present pilot study evaluates compliance with HH and the impact of a campaign designed to implicate the patient in evaluation and motivational reinforcement based on a three-phase, cross-sectional observational study.

The setting of this three-phase, cross-sectional observational study was the Health Department of Gandía (Valencia, Spain), with a recruitment population of about 188,500 inhabitants distributed among 40 municipalities. The Department of Internal Medicine has 24 physicians with 122 beds in individual rooms, each equipped with a water-alcohol solution. Each year this Department registers approximately 5000 admissions, representing an occupation rate of over 95%.

The study included the medical staff of the Department of Internal Medicine and the patients admitted to the Department who agreed to participate as observers. Patients unable to participate in the interview or who lacked a caregiver were excluded, as were those subjected to specific isolation protocols, and terminal or hostile patients.

In the first (pre-campaign) phase, the patients or caregivers were asked whether they had seen the physician perform HH with the water-alcohol solution upon entering or leaving the room.

This first phase was followed by a promotional campaign targeted to the physicians on an individualized basis. The results of the first

phase were explained, a reminder of the indications of HH was provided, and they were informed that the patients were aware of the recommendations and would document whether HH was carried out in the course of each visit. Informative posters were also placed in each of the rooms where the physicians meet before the patient visits.

The second (post-campaign) and third (two months post-campaign) phases involved the repetition of data collection one week and two months after the campaign, respectively. In relation to sample size, the first phase included all the admitted patients that met the inclusion criteria. Based on the data of this baseline sample, and taking a 100% increment to be clinically relevant, the sample size needed for the second and third phases was calculated as ≥ 70 individuals, accepting an alpha risk of 0.05 and a beta risk of 0.2 in two-tailed testing, with the assumption of a loss rate of 0%.

In each of the phases of the study we included the patients admitted each day to the Department and who met the inclusion criteria. The variation in the percentage of patients who remembered the physician having performed HH was evaluated based on Poisson regression analysis.

The study was approved by the Research, Teaching and Ethics Committee of the hospital.

A total of 34 physicians, among staff members of all the specialties in the Department of Internal Medicine and the residents in training rotating through the Department, participated in the study. A total of 85 patients were included in the first phase, 91 in the second, and 78 in the third phase.

The percentage of patients who remembered the physician performing HH before visiting increased from 22.4% in the first phase to 40.7% in the second -this representing a statistically significant increase of 82% (incident rate ratio [IRR] 1.82 [1.04-3.16]; $p = 0.034$). The third phase also revealed an increase in compliance with respect to the pre-campaign phase, though of lesser magnitude (32.1%) and without reaching statistical significance (IRR 1.43 [0.79-2.6]; $p = 0.23$).

With regard to HH at the end of the visit, compliance likewise increased from 14.1% to 30.8% in the second phase (IRR 2.17 [1.11-4.29]; $p = 0.024$) and decreased again to 26.9% two months after the intervention (IRR 1.91 [0.94-3.87]; $p = 0.074$)

In recent years [3-6] several studies have evaluated the efficacy of multimodal strategies for complying with washing techniques. Most of them report a degree of improvement after introducing these strategies, though compliance with HH remains open to improvement. This reflects the need to continue developing and evaluating new interventions for improving HH. Some of these new proposals comprise video monitoring, patient implication as motivational reinforcement, and positive reinforcement, among others [3].

Carried out a randomized, group-controlled clinical trial comparing the efficacy of informative protocols and feedback techniques with and without patient implication as motivational reinforcement. The study recorded an absolute increase in HH compliance of 4% with the combined intervention, versus 3% in the feedback only group, versus the control group.

One limitation of our study is dependency upon the patient as observer. In effect, this situation could lead to underestimation of the true frequency of HH, since some patients did not remember whether the physician had washed his or her hands or not. Fear of or empathy with the physician could also interfere with the results. Another limitation is the fact that the study was conducted on three different days and with different patients.

Conclusion

The introduction of a campaign to promote HH with implication of the patient as a witness (observer) and motivational reinforcement has a significant impact that nevertheless appears to become attenuated over time. New and sustained interventions may be needed to improve short- and long-term compliance and thus reduce the incidence of infections associated with healthcare.

References

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