

Safe care pathways: hand hygiene observational sheets - 2023

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ABSTRACT

Aims: Annual monitoring of compliance with WHO hand hygiene procedures by health care personnel at the OO.RR. Vittoria and Comiso. the study aims to implement a system of staff accountability in which explicit actions are put in place to motivate health care workers to be responsible for their behaviors necessary to ensure safe care settings.

Participants: 445 health professionals from the OO.RR. Vittoria and Comiso - ASP Ragusa, as follows - physicians n.161, nurses n.169, OSS n.91, other staff n.24.

Background: the incidence of care-related infections is an emerging critical issue in the international and national health care landscape. Clinical practice if not supported by up-to-date scientific evidence may be ineffective if not harmful. Given that several scientific evidences affirm that a proper training program is the key element for successful ICA control and reduction, it was decided to investigate the correlation between Evidence-based Practice (EBP) knowledge and ICA through observance of proper hand hygiene.

Methods: the observational study was conducted with the help of the WHO framework for hand hygiene self-assessment applied to all health professionals of the OO.RR. of Vittoria and Comiso - ASP Ragusa. The aforementioned framework is a systematic tool, useful to acquire both basic knowledge and activate virtuous pathways in order to promote hand hygiene.

Results: the overall compliance of hand hygiene adherence, detected in each observational form, is 70.6 percent. It is inferred that from the baseline analysis, where hand hygiene adherence was 54%, it increased significantly by 14% (Q2), to 20% (Q3) and 32% (Q4) ($p < 0.0001$).

Conclusions: the hand hygiene self-assessment framework also helps to focus on future projects and challenges. In particular, it represents a predictive tool, to identify key issues that need attention and continuous improvement. The implementation of evidence-based best practices proves to be increasingly relevant in daily practice, particularly in the sensitive issue related to the prevention of infectious risk and the promotion among healthcare professionals of their application in various care settings.

INTRODUCTION

The health impact of Healthcare-Associated Infections (HAIs) is highly significant on the national and local health system, in fact they lead to an increase in the mortality rate of patients and an additional economic burden. HAIs contribute to causing disability and death in patients by increasing antibiotic resistance. Every year, in the European Union, about 3.2 million patients fall ill from infections contracted during their stay in hospitals. Of these, about 37,000 die due to consequences related to such infections.

Infectious risk, i.e. the risk for patients, visitors and operators of contracting an infection, occupies a particular place due to the magnitude of the risk, the complexity of the determinants and the increasing epidemiological trend. The basic and post-basic training of health professionals is not always related to the best scientific evidence, although Evidence-based Practice (EBP) represents a point of reference for curricular development in the disciplinary sectors of the health professions. The implementation of EBP in care settings could be hindered by multiple

factors (educational, cultural, organizational and financial), moreover the literature has highlighted the low propensity to monitor the EBP skills of health professionals.

With a view to bech-marking, the adherence of healthcare professionals to this <good practice> has almost never reached optimal percentages (>80%) even after the introduction of hydroalcoholic gel and dedicated training. The World Health Organization, to counter this phenomenon, has identified an intervention strategy to promote hand hygiene: the multimodal strategy. The multimodal strategy implemented consists of 5 key elements for the promotion of hand hygiene, such as: structure-policy (higher institutional priority to hand hygiene, reward or sanction systems); staff training; monitoring and Feedback, institutional safety culture.

Monitoring compliance with correct and effective hand hygiene procedures is in fact the gold standard aimed at preventing and containing the spread of HAIs. The study aims to implement a staff



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accountability system in which explicit actions are implemented to motivate healthcare professionals to be responsible for their behaviors necessary to ensure safe care settings.

MATERIALS AND METHODS

The observational study was conducted with the help of the WHO framework for self-assessment of hand hygiene applied to all health professionals in OO.S. RR. of Vittoria and Comiso – ASP Ragusa.

The aforementioned framework is a systematic tool, useful for acquiring both basic knowledge and activating virtuous paths in order to promote hand hygiene. The team work, represented by the HAI Control Committee, conducted on-site audits on a quarterly basis in 2023, compiling a total of 445 observation sheets. In the first trimester, the baseline analysis was performed exclusively by observing the behavior of the operators.

After the first quarter and throughout the year 2023, training events were organized to raise awareness among staff about adequate hand hygiene. The observational grid consists of four columns, each of which is dedicated to a professional category: doctors, biologists, nurses, health technicians and OSS. The duration of each assessment was 30 minutes.

The analysis was conducted by studying the 5 opportunities referred to an indication of the observance of hand hygiene (HH): pr-cont, before contact with the patient, pr-aseps., before an aseptic maneuver, dp-fluid, after exposure to risk with a body fluid, dp-cont., after contact with the patient, dp-circ., after contact with what surrounds the patient.

With reference to the 5 opportunities, the response to an indication to hand hygiene was analyzed:

- friction: when hand hygiene is carried out by rubbing with an alcohol-based product,
- washing: when hand hygiene is carried out by washing with soap and water,
- Nothing: When no action is taken.



Figure 1.

RESULTS

In 2023, 445 observational forms were collected for each of which the conduct of health professionals was studied on the occasion of the 5 opportunities, distinguished as follows: 1st quarter baseline n.75, 2nd quarter. n.147, 3rd quarter. n.112, 4th quarter. n.111. (Figure 2).

Specifically, it should be noted that as regards the 1st baseline quarter, the assessment conducted made it possible to record 54% for compliance with hand hygiene and use of gloves (HH+ use of gloves), 45.3% for non-compliance with hand hygiene and absence of gloves (no HH + no gloves); in Q2. 68% for HH+ gloves and 31.9% for no HH+ no gloves; in Q3. 74% for HH+ gloves and 25.8% for no HH+ no gloves; in Q4. 86.4% for HH+ gloves and 13.5% for no HH+ no gloves. The data obtained, from the baseline situation to the 4th quarter, show a significant increase in positivity equal to $\sigma = 0.18$.



Figure 2.



Figure 3.

DISCUSSION

The overall compliance of adherence to hand hygiene, detected in each observation sheet, is equal to 70.6%. It can be seen that, from the baseline analysis, in which adherence to hand hygiene was 54%, it increased significantly by 14% (second trimester), to 20% (third trimester). QoQ) and 32% (Q4) ($p < 0.0001$).

Consistent and significant increases in compliance with proper hand hygiene were observed during the 5 opportunities during the entire follow-up period. In conclusion, the Hand Hygiene Self-Assessment Framework also helps you focus on future projects and challenges. In particular, it represents a predictive tool, to identify key problems that need attention and continuous improvement.

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