

## Management and analysis of hand hygiene in reference ICUs in the North Zone of Ceará

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### ABSTRACT

Experienced healthcare professional adept in managing and analyzing hand hygiene protocols in intensive care units (ICUs). Implemented strategies to enhance adherence to hand hygiene protocols, resulting in a notable reduction in healthcare-associated infections (HAIs). Utilized active learning methodologies to engage healthcare teams and ensure consistent compliance with hygiene practices. Proficient in conducting situational diagnoses, implementing changes, and assessing the impact of interventions. Committed to upholding patient safety standards through effective hand hygiene measures.

**Keywords:** Nursing, Infection, Patient safety.

### INTRODUCTION

Healthcare-associated infections (HAIs) are infections caused by microorganisms that come from various body sites of a patient, between patients and even between them and the scope of care, in which the hands of health professionals are a source and vehicle for the transmission of these germs (Costa *et al*, 2019). According to the World Health Organization (WHO), HAIs currently represent an international concern, as they involve the work of health professionals, the quality of materials for daily use and the physical facilities of hospitals (WHO, 2009).

Patients who are hospitalized in an intensive care unit (ICU), depending on the severity of their disease, are exposed to invasive procedures and prolonged hospitalization, thus having a high risk of acquiring infections (Carparina *et al*, 2019). In view of the above, the study aims to report the experience of the management and analysis of hand hygiene in reference ICUs in the North Zone of Ceará.

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## **MATERIALS AND METHODS**

This is an experience report study on the management and analysis of hand hygiene in reference ICUs in the North Zone of Ceará. The study took place in the city of Sobral, located in the North Zone of Ceará, more specifically in the Northern Regional Hospital (HRN) is the largest hospital in the interior of the Northeast Region, with more than 54 thousand square m<sup>2</sup> of built area, being responsible for serving an estimated population of 1.6 million people, from the 55 municipalities that are part of the Northern macro-region of the State ((Institute of Health and Hospital Management, 2021) and took place from April to June 2022. The experience report consisted of the second edition of the Project to encourage the increase of adherence to Hand Hygiene, aiming at the reduction of infections, carried out by Anvisa, throughout Brazil. The project covered the stages of situational diagnosis, implementation of changes and new observations to verify the impact of the actions. The composition of the hand hygiene team was formed by members of the care team and the SCIH, totaling eleven people per team as one of the requirements of the project.

## **FINDINGS**

The activities were followed in three stages, which were, stage a situational diagnosis, stage 2 implementation of changes and stage 3 making new observations to verify its impact. Stage 1 consisted of non-participant observation where team members, by means of a scale, went to the service at all times without, however, identifying themselves to only evaluate the performance of hand hygiene adherence by the health team, the finding was median hygiene adherence where it was not performed in the five moments of approach to the patient. There is less hygiene at the time of handling the equipment used by the patients, such as: infusion pump, evaluation of serums, use of electrodes, monitors, and hygiene is restricted to the most invasive procedures or after leaving the patient's island. After analyzing the hygiene in all ICU shifts and evaluating the process in the entire team present, the situational diagnosis was constructed. The report was built on top of the findings and guided by the management tool, 5W2h, after this stage, an action plan based on active methodologies was built that should be carried out in all shifts and with all team members. Stage 2 consisted of the implementation of changes, where the team attended the service supporting andragogy and active learning methodologies, addressing an action entitled, "Hand hygiene, it depends on us". The activity took place in a dynamic way, involving all members of the team, with the distribution of gifts and alcohol gel to everyone who from then on would have a specific date for use, with control with the name of the professional in the pharmacy service, to request new bottles for them. Stage 3 consisted again of a reassessment of the team, which was not performed by the same professionals who performed the first analysis. All those involved observed a change in the team's behavior, greater adherence to hand hygiene, and engagement in the use of individual alcohol gel bottles,



with periodic changes in the estimated period, with a reduction in the hospital infection rate in the service. Nowadays, hand hygiene has been fundamental when it comes to Patient Safety, as an example we can cite the "World Alliance for Patient Safety", carried out by the World Health Organization (WHO), which highlights the practice of hygiene as essential for global health (Bastian; Foster; Barbosa, 2021). Thus, the understanding of the aspects associated with the adherence of Hand Hygiene is fundamental for the construction of barriers against hand hygiene infection related to hospital care and consequently improvement of the care provided to users by the health professionals present there, who constitute the largest disseminators of microorganisms in the hospital environment (Oliveirra, *et al*, 2021).

Based on the results of the research, it is important to observe the importance of continuing the project started, since it improved adherence to hand hygiene and decreased infection rates in the service. It is also important that this theme is addressed with emphasis and clarity because discussing hand hygiene and carrying out in-depth studies is necessary and also using strategies of training, feedback, encouragement from the team and the SCIH are necessary. Health services must work together to provide for the safety of both patients and professionals. In this context, we emphasize the relevance of the continuity of continuing education, to intensify and raise awareness for this action, this care among professionals and for a greater adherence to this act that is so fundamental. However, for this to happen, the entire team needs to be in tune and with the same purpose, which is the safety of the patient and of themselves.



## REFERENCES

- Bastian, M. S., Fonseca, C. D., & Barbosa, D. A. (2021). Os desafios da higienização das mãos de profissionais de saúde no pronto-socorro: revisão integrativa. *BJHR*, 4(1), 485-499.
- Carapina, J. C., et al. Perfil de suscetibilidade para infecções relacionadas à assistência à saúde (IRAS) no Brasil: uma revisão sistemática. Encontro da rede distrital de avaliação de tecnologias em saúde – Arca Repositório Institucional da Fiocruz. (2018). Retrieved from <https://www.arca.fiocruz.br/handle/icict/39136>
- Costa, M., et al. Principais micro-organismos responsáveis por infecções relacionadas à assistência em saúde (IRAS) em UTIS: uma revisão integrativa. *Rev Eletron Facul Evang Ceres*, 8(1), 06-20. Retrieved from <http://dx.doi.org/10.36607/refacer.v8i1.4480>
- Instituto de Saúde e Gestão Hospitalar. (2021). Unidade Hospitalar Hospital Regional Norte. Retrieved from <https://www.isgh.org.br/onde-estamos/hospital-regional-norte>
- Organização Mundial da Saúde (OMS). (2009). *Salve Vidas: Higienize suas Mãos. Guia para a Implementação da Estratégia Multimodal da OMS para a Melhoria da Higiene das Mãos.* Retrieved from [https://proqualis.net/sites/proqualis.net/files/Guia\\_de\\_Implementao\\_estrategia\\_multimodal\\_de\\_melhoria\\_da\\_HM\\_0.pdf](https://proqualis.net/sites/proqualis.net/files/Guia_de_Implementao_estrategia_multimodal_de_melhoria_da_HM_0.pdf)
- Oliveira, W. S., et al. Resultado da percepção de acadêmicos da saúde quanto à importância da realização da higienização das mãos na técnica correta. *BJHR*, 4(3), 10717-27.