

Editorial

Hygiene of the Hands: Remember not to Forget!

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Our lives are likely increasingly to changes in living environment and matters of choice that interests us in some way. Discussions and selection of the importance of Hand Hygiene (HH) in the control and prevention of Healthcare-Associated Infections (HCAI) are in progress since the publication of the Guideline for Hand Hygiene in Health Care Settings by the Center for Diseases Control and Prevention in 2002 [1]. And nowadays, has the subject been forgotten? Has the problem of the transmission of infections by the Health Care Workers (HCW) been resolved? Are the infections gone?

Human skin is colonized with bacteria in different proportions and locations. The wet regions carry more bacteria, which can be divided into two categories: transient microbiota, which is found in a more superficial layer of the skin, most frequently associated with HCAI and are more easily removed with the HH and also the resident microbiota, to which they are more adhered to layers more internal to the skin, and are more resistant to HH [2].

And Multidrug Resistant Organisms (MDROs) are present in most HCAs that result in increased morbidity, mortality, and health costs. And the risk of acquiring MDROs mainly from the hands of HCW colonized temporarily or indirectly from surfaces is very large [3].

Infection prevention strategies to improve adherence with HH and cleanliness of the environment aim to reduce this risk of transmission. HH contributes to the prevention of all infectious processes, because it avoids the transmission of contaminating microorganisms from the hands. For this, plain (non-medicated) soap and water are used, which are suitable for the removal of transient microorganisms present, since the antiseptic products aim to eliminate these microorganisms. Soap (detergent) emulsifies the lipids, thereby removing them, along with some contaminants that are adhered. Organic solvents, such as alcohol, dissolve lipids (fats from the skin) and destroy the cells of microorganisms. But be careful because the action under the lipids is reduced with the dilution of alcohol into water, so the alcoholic solutions between 60% and 95% are the most effective [4].

According to the Center for Disease Control and Prevention¹, there are different applications to the hands for reducing the number of viable microorganisms, although adherence with HH among

HCWs (including physicians, nurses, and clinical staff and students) has been consistently low [5]. Washing hands with plain soap and water, rubbing for at least 30 seconds, aims to remove dirt and part of the transient microbiota. Washing hands with water and soap containing an antiseptic agent, rubbing for at least 30 seconds is considered an antiseptic handwash, as well as the antiseptic hand rub with antiseptic product (water less) across the surface of the hands for at least 30 seconds, aims to kill and inhibit the growth of contaminants.

Although measures are diverse people refuse to perform correctly this action. According to several observational and epidemiological studies, the main factors are: professionals are always very busy; hands irritated and dry or do not look dirty; the sinks are not near; lack paper towels, soap and other devices; In addition, the use of large nails and rings makes it difficult to practice and takes a long time [1].

Interventions hand hygiene promotion in hospitals should, where appropriate, be adapted to the contextual challenges. The concept of the World Health Organization (WHO) “My Five Moments for Hand Hygiene” was developed with the aim of standardizing HH in clinical practice and reducing the burden of infections associated with health care [6]. The interventions considered most effective include the need for each HCW to perform HH “as a model for others”, visual instructions and ensure the availability of hand sanitizers. The intervention considered less effective is the provision of feedback on HH compliance by HCW.

It remains for us to discuss further and find ways to improve adherence of professional to such a simple and effective practice in a global effort, regardless of resources, to improve adherence to hand hygiene and reduce overall hospital infection rates.

References

- Centers for Disease Control and Prevention. Guideline for Hand Hygiene in Health-Care Settings: Recommendations of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force. *MMWR*. 2002; 51: 1-45.
- Price PB. Bacteriology of normal skin: a new quantitative test applied to a study of the bacterial flora and the disinfectant action of mechanical cleansing. *J Infect Dis*. 1938; 63: 301-318.
- Barnes SL, Morgan DJ, Harris AD, Carling PC, Thom KA. Preventing the transmission of multidrug-resistant organisms: modeling the relative importance of hand hygiene and environmental cleaning interventions. *Infect Control Hosp Epidemiol*. 2014; 35: 1156-1162.
- Marsik FJ, Denys GA. Sterelization, decontamination and disinfection procedures for the Microbiology laboratory. Murray PR, Baron EJ, Pfaller MA, Tenover FC, Tenover FC, Tenover FC, Tenover FC. In: *Manual of Clinical Microbiology*. ASM: Washington. 1995; 86-87.
- Qasmi SA, Mahmood Shah SM, Wakil HYI, Pirzada S. Guiding hand hygiene interventions among future healthcare workers: implications of knowledge, attitudes, and social influences. *Am J Infect Control*. 2018; 46: 1026-1031.
- Salmon S, Pittet D, Sax H, McLaws ML. The 'My five moments for hand hygiene' concept for the overcrowded setting in resource-limited healthcare systems. *J Hosp Infect*. 2015; 91: 95-99.