

# ***Adherence, Differences and Resistances: A Review of the Literature on Hand Hygiene in Healthcare Facilities***

**Theme :** Resistance and Renewal: Improving Adherence to Hand Hygiene in the Context of Healthcare Facilities.

**Aim :** The study aims to investigate the level of adherence to hand hygiene practices among healthcare workers, identifying effective strategies for improvement. It seeks to evaluate current training and educational strategies, ultimately aiming to enhance patient safety and nursing practices within healthcare settings.

**Method :** A literature review approach was employed, utilizing databases and WHO resources. Inclusion criteria focused on English and Italian studies, full-text, freely accessible articles, primary studies, and guidelines. Studies published before 2013 were excluded. The research question, based on the PICO methodology, aimed to identify factors influencing adherence and effective improvement strategies.

**Results :** The review highlights key themes, including complications, resource limitations, and individual and organizational factors impacting compliance. Effective strategies identified include continuous training, feedback mechanisms, and ensuring accessibility to hand hygiene facilities.

# ***Hand hygiene: the backbone of health care***



**Hand hygiene is a health procedure that limits the spread of microorganisms.  
It reduces the incidence of ICA.**

**According to the Centre for Disease Control and Prevention, hand hygiene is the most important measure to prevent the spread of infections.**

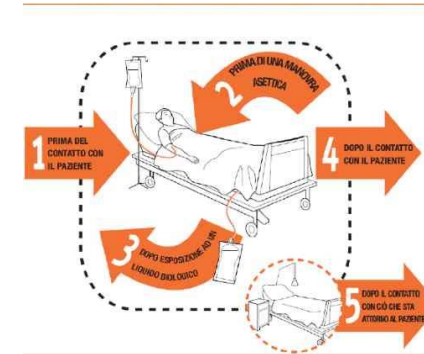
## **Why is hand hygiene so important in health care? WHO states that:**

- ✓ Hands are the most common vehicle for the transmission of microorganisms from one patient/operator to another, from a contaminated environment to patients/operators.
- ✓ Healthcare workers' hands are progressively colonised by **multi-resistant** pathogens.
- ✓ In the absence of hand hygiene action, the longer the duration of care procedures, the greater the degree of contamination of hands.



# Adherence to hand hygiene at the 5 moments of care

The WHO guidelines outline the need for healthcare professionals to perform hand hygiene at least at 5 times during care. Despite the importance of good hygiene practices, adherence by healthcare professionals is often insufficient. Nurses and doctors tend to wash their hands less than half as often as necessary. (WHO, 2009)



**Adherence to guidelines below 40% in healthcare facilities where no special implemented appropriate awareness programmes. (ANIPIO, 2019)**

**Adherence below 20% in residential facilities for the elderly (Italy 17%). (ANIPIO, 2019).**

**WHO outlines that adherence to the five moments of hand hygiene should be at least 75% to ensure safe care.**

## ***Aim of the study***

This literature review focused on hand hygiene, examining the adherence of healthcare workers and factors limiting its practice. In addition, effective strategies to increase adherence to this practice were examined.



***Is the best practice of hand hygiene carried out by healthcare workers negatively influenced by limiting factors?  
What strategies are effective in increasing this practice?***



**Growing evidence on the effectiveness of hand hygiene.  
Level of adherence.**



***Relevance of the topic.  
Impact of the COVID-19 pandemic.***

## *Materials and methods*

### **Databases:**

- Cinahl
- Scopus
- PubMed
- Google Scholar

### **Inclusion Criteria:**

Time limit of ten years and pertaining to the human species. Articles not relevant to the free full-text article were excluded.

### **Keyword:**

hand hygiene, nursing, compliance, barriers, noncompliance, factors, causes, influences

Tabella PICO

**Problem (P): Health workers**

**Intervention (I): Identification of determinants of non-adherence/limiting factors and improvement strategies**

**Comparison (C): /**

**Outcome (O): Improving adherence to hand hygiene by raising awareness among health workers.**

## ***Results: factors limiting adherence to hand hygiene best practice***

**Limiting factors** for hand hygiene may include:

- ✓ **Shortage of time (a factor perceived by healthcare workers):** healthcare workers **state** that they have high workloads and may not have sufficient time to practice hand hygiene as required (Sadule-Rios N et al; 2017).
- ✓ **Shortage of necessary tools and detergents (pre COVID - 19): Availability of hydroalcoholic solutions** and clean water, soap and disposable towels is critical for hand hygiene (Ataiyero Y et al; 2019).
- ✓ **Behavioural factors:**

**These may include lack of awareness of the importance of hand hygiene or lack of appropriate continuing education** (Hammerschmidt J et al; 2019).

**For example, the widespread use of gloves as a substitute for hand hygiene**



## *Results: effective strategies to increase adherence to hand hygiene best practice*

**Effective strategies to increase** hand hygiene may include:

- ✓ **Staff education:** Training healthcare staff on the importance and proper hand hygiene techniques is crucial (Graveto JMGDN et al; 2018).
- ✓ **Ongoing monitoring:** Monitoring hand hygiene practices can help identify areas that need improvement (Doronina O et al; 2017).
- ✓ **Promotion of hand hygiene:** Notices reminding of hand hygiene practice posted in workplaces can be helpful (Luangasanatip N et al; 2015).
- ✓ **Creating an environment centred on patient safety:** Implementing an environment that focuses on patient safety can promote adherence to hand hygiene practices (Pada SMSK et al; 2019).

## *Discussion*

- ✓ Healthcare workers show different levels of hand hygiene compliance, influenced by factors such as self-efficacy, attitude and organisational factors.
- ✓ Continuous training and education are crucial to improve adherence.
- ✓ A holistic approach is needed that promotes an organisational culture that values hand hygiene as a fundamental act of care for patient safety.

### *Research limitations*

- ✓ Small number of articles collected.
- ✓ Impact of COVID - 19 on good practice excluded.
- ✓ Inclusion of articles on health systems in developing countries with different limiting factors compared to health systems in more industrialised countries.



## *Conclusions*

Adherence to hand hygiene is still too low, but research has shown that multimodal approaches can increase adherence.

Constant commitment and involvement of all levels of the organisation are key to maintaining and improving adherence.

It is important to use data from monitoring to guide improvement strategies.

Future health workers must be trained from their early years of study on the importance of hand hygiene.

Health workers, especially nurses, are ready to work together to ensure a safer and more secure hospital environment for all.



