

EDITORIAL

HAND HYGIENE; A RESPONSIBILITY OF HEALTH CARE PERSONNELS

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Hand hygiene is a simple yet highly effective infection control measure in healthcare settings, but adherence among healthcare professionals remains disappointingly low. For almost two decades, World Health Organization (WHO) has been a global leader in promoting and bolstering hand hygiene as an essential preventative step against infectious diseases, especially in hospital settings.¹ Contaminated hands of healthcare professionals transmit infections, including drug-resistant microorganisms. Improving hand hygiene adherence can reduce pathogen transmission by up to 50% and achieving around 60% adherence rate can significantly lower Healthcare-Associated Infections (HAIs).² Alarming, two-thirds of medical personnel, however, don't comply with the hand hygiene recommendations due to a variety of reasons, including lack of institutional emphasis, forgetfulness, time restrictions, and understaffing.

Health-care-associated infections (HAIs) are one of the most frequent adverse outcomes in hospital treatment and pose a significant public health threat, that has significantly increased in recent years. It has detrimental effects on the health of patients in hospitals across the board, particularly those who are in critical care unit (ICU) beds.³ WHO estimates that 3.5% to 12% of patients in high-income countries and 5.7% to 19.1% in low- and middle-income countries have HAIs at any given time. However, these figures may underestimate the true burden due to underre-

porting in many countries. HAIs are primarily spread through contaminated hands of healthcare workers, making hand hygiene a crucial strategy in infection control.⁴ In addition to lengthening hospital stays and increasing the use of antibiotics, HAIs contribute to the emergence of antimicrobial resistance (AMR), which is currently acknowledged as a public health emergency on a worldwide scale. In this regard, hand hygiene serves two key purposes: preventing infections at their origin and reducing unnecessary antibiotic use. Strengthening hand hygiene practices is therefore crucial in combating AMR and supporting antibiotic stewardship.

The SARS-CoV-2 virus-causing COVID-19 pandemic, which started in early 2020, has affected all facets of hand hygiene in medical and public environments. Because the significant role of airborne and droplet transmission was not initially recognized, hand hygiene was marketed as one of the most crucial preventive measures early in the pandemic.⁵ The COVID-19 pandemic temporarily brought global focus to hand hygiene, leading to a surge in the use of alcohol-based hand rubs (ABHRs) and the reinforcement of handwashing guidelines. Despite the emphasis on hand hygiene during the pandemic, post-pandemic observations suggest a decline in compliance, highlighting the need for ongoing institutional efforts. Effective hand hygiene adherence must become a continuous quality improvement

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objective, extending beyond crisis responses. To bridge the compliance gap, healthcare institutions should implement multifaceted strategies such as automated hand hygiene monitoring systems, readily accessible ABHR dispensers, and regular audits with constructive feedback. Leadership involvement is vital; administrators and senior physicians need to set an example of appropriate conduct and assist frontline employees with training and acknowledgment. Educational interventions should go beyond

didactic sessions and incorporate simulation-based training and behavioral reinforcement. By decreasing infection rates, hospital stays, antibiotic use, and related healthcare expenses, investments in hand hygiene promotion provide significant returns.

In conclusion, hand hygiene is a low-cost, high-impact strategy that has been shown to be effective in lowering HAIs and enhancing patient safety. The challenge lies in applying this knowledge to regular therapeutic practice, not in appreciating its significance. Hand hygiene must continue to be a top focus in all healthcare settings as the world's healthcare community deals with changing disease threats and the ongoing problem of antibiotic resistance. Strengthening hand hygiene compliance is not only a scientific mandate but a moral imperative-one that defines the quality, safety, and ethical standard of modern medicine.

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CONFLICT OF INTEREST
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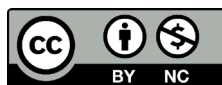
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All the authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.



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