

# Hand Hygiene: A Simple Cost-Effective Weapon in the Fight against Healthcare-associated Infections



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Healthcare-associated infections (HAIs), infections acquired by patients sometime during the course of receiving care for another condition, represent a serious health and safety risk for patients. Eliminating these infections is a priority and goal for hospitals.<sup>i</sup> The World Health Organization (WHO) reported that complications associated with HAIs impact more than 1.4 million people across the globe at any given time. In the United States alone, more than 1.7 million patients acquire an HAI during a hospital stay each year. Furthermore, the WHO estimates that close to 250 people will die each day due to an HAI in the United States.<sup>ii</sup>

While HAIs are deadly among many different types of patients, the most frequent victims are the sickest and neediest patients. In fact, according to the WHO, globally, at least one in four patients will acquire an infection during a stay in an intensive care unit.<sup>iii</sup>

In addition to posing a grave threat to patient safety, the economic burden for HAIs is significant across the globe, but high standards for hand hygiene represent a simple, cost-effective opportunity to minimize the impact of these dangerous infections.<sup>iv</sup>

## The WHO "Five Moments for Hand Hygiene"

Despite the clear benefits of enforcing good hand hygiene practices in hospitals, compliance remains an issue. The WHO has drawn attention to this problem and in 2005, issued the "WHO Guidelines on Hand Hygiene in Health Care". Generating from these initial guidelines, the WHO made recommendations for "Five Moments for Hand Hygiene"<sup>v</sup>:

1. Before patient contact
2. Before an aseptic task
3. After body fluid exposure risk
4. After patient contact
5. After contact with patient surroundings

## Your 5 moments for HAND HYGIENE



## Measuring Hand Hygiene Opportunities (HHOs) in a Real-life Setting: The "HOW2 Benchmark Study"

Though critical, measuring hand hygiene compliance is often a difficult task for hospitals, as there is no standard or generally accepted best practice method to do so. Measurement typically occurs through direct observation, product utilization or surveys.<sup>vi</sup> However, new research is now available to help quantify hand hygiene opportunities (HHOs) for better measurement of hand hygiene in a given setting.

The "Hospital Hand Hygiene Opportunities: Where and When (HOW2)? The HOW2 Benchmark Study", based on the WHO's "Five Moments for Hand Hygiene", was published in the February 2011 issue of the *American Journal of Infection Control* (AJIC). The "HOW2 Benchmark Study" was funded by Deb Group. Study authors included Connie Steed, MSN, RN, CIC of the Greenville Hospital System in Greenville, S.C. and Dr. Elaine Larson RN, PhD, FAAN, CIC of the Columbia University School of Nursing.

The "HOW2 Benchmark Study" provides the following formula as a recommendation to measure hand hygiene adherence:

$$\frac{\text{\# of times a healthcare worker **actually cleaned** his or her hands}}{\text{\# of times the healthcare worker **should have cleaned** his or her hands}^1}$$

Through direct observation of the WHO's five moments in various settings, the "HOW2 Benchmark Study" generated the estimated denominators for this formula to assist with calculating rates of hand hygiene compliance in settings where measurements of actual hand cleaning are available. This study is the first reported effort at standardizing the WHO's hand hygiene model in a way to usefully assess compliance in a given setting.<sup>vii</sup>

To access the abstract, please visit the "[HOW2 Benchmark Study](#)".

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i Steed et al. Hospital hand hygiene opportunities: where and when (HOW2)? The HOW2 Benchmark Study. *American Journal of Infection Control* 2011;39:19-26.

ii World Health Organization. WHO Guidelines on Hand Hygiene in Health Care . Available at [http://www.who.int/patientsafety/information\\_centre/Last\\_April\\_versionHH\\_Guidelines%5B3%5D.pdf](http://www.who.int/patientsafety/information_centre/Last_April_versionHH_Guidelines%5B3%5D.pdf). Accessed February 14, 2011.

iii World Health Organization. WHO Guidelines on Hand Hygiene in Health Care . Available at [http://www.who.int/patientsafety/information\\_centre/Last\\_April\\_versionHH\\_Guidelines%5B3%5D.pdf](http://www.who.int/patientsafety/information_centre/Last_April_versionHH_Guidelines%5B3%5D.pdf). Accessed February 14, 2011.

iv World Health Organization. WHO Guidelines on Hand Hygiene in Health Care . Available at [http://www.who.int/patientsafety/information\\_centre/Last\\_April\\_versionHH\\_Guidelines%5B3%5D.pdf](http://www.who.int/patientsafety/information_centre/Last_April_versionHH_Guidelines%5B3%5D.pdf). Accessed February 14, 2011.

v World Health Organization. Your 5 moments for Hand Hygiene. October 2006, version 1. Available at [http://www.who.int/entity/gpsc/tools/5momentsHandHygiene\\_A3.pdf](http://www.who.int/entity/gpsc/tools/5momentsHandHygiene_A3.pdf). Accessed February 14, 2011.

vi Steed et al. Hospital hand hygiene opportunities: where and when (HOW2)? The HOW2 Benchmark Study. *American Journal of Infection Control* 2011;39:19-26.

vii Steed et al. Hospital hand hygiene opportunities: where and when (HOW2)? The HOW2 Benchmark Study. *American Journal of Infection Control* 2011;39:19-26.