

## Hand Hygiene: Why, When, and With What © 3.2016

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### Hand Hygiene Stats

Numerous studies have documented the causal relationship between hand hygiene practices and health care-associated infections (HAI) rates. In short, poor hand hygiene practices result in higher infection rates! It is normal for skin to be colonized with bacteria and in 1975 the *British Journal of Dermatology* published the article Dispersal of Skin Microorganisms by W C Noble noting that nearly 1,000,000 skin squames with viable microorganisms are shed from the skin daily. This shedding leads to the contamination of a resident's environment including gowns, clothing, bedside tables, and other inanimate objects. Health care workers (HCW) hands can become contaminated with transient flora when there is contact with the resident and/or the patients/resident's environment. One study found that 52% of HCW hands or gloves became contaminated with Vancomycin-resistant Enterococcus (VRE) when they went into a VRE patient room, without even touching the patient<sup>1</sup>. This also brings to light that HCW infrequently go into a room and not come in contact with the environment. Studies also noted that microorganisms tend to be concentrated around fingernails, even after hand hygiene is performed. The World Health Organization (WHO) Guidelines on Hand Hygiene in Healthcare 2009 [http://apps.who.int/iris/bitstream/10665/44102/1/9789241597906\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/44102/1/9789241597906_eng.pdf) note that HCW with direct contact with patients/residents should not wear artificial nails or extenders. In addition, natural fingernails should be kept short and not exceed ¼ of an inch.

### Highest Quality of Care

In order to ensure the highest quality care for your patient's/resident's, adherence to proper hand hygiene practices is a must. The WHO has numerous resources to support hand hygiene education, promotion, and monitoring adherence. Their guideline identifies the 5 Moments for Hand Hygiene which includes: before touching a patient/resident; before clean/aseptic procedure; after body fluid exposure; after touching a patient/resident; and after touching patient/resident surroundings. These guidelines include graphics and posters on how to perform hand hygiene and provide guidance on when to use soap and water and when to use an alcohol-based hand rub. Soap and water should be used when hands are visibly soiled, have potentially been exposed to body fluids, and/or when there is the potential for contact with spore-forming pathogens such as *C. difficile*. Alcohol hand rubs may be used for other hand hygiene opportunities and there is no recommendation that requires the use of soap and water after using alcohol based hand rubs. In other words, there is no evidence to support having to use soap and water after having used alcohol hand rub many times in a row, unless there is the

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potential to have had contact with body fluids, *C. difficile* and other spore-forming pathogens, or hands have become visibly soiled.

### **In summary**

Quality patient/resident care includes excellence in hand hygiene as a primary form of defense against infection spread to patients/residents as well as staff and those they come in contact. Centers for Medicare and Medicaid Services (CMS) has focused their attention on infection prevention and the skills of those professionals responsible to identify, track, and trend to protect their facility patients/residents as well as staff and visitors. The impending CMS regulations specific to infection prevention should be read and considered by HCWs as policies, procedures, and programs are developed, approved, and implemented. Staff education is key and should be included during peak times such as orientation, annually, but also in conjunction with identified need. The adage 'an ounce of prevention' is pivotal in today's health care world and failure to do so may result in undesirable outcomes.

### **Contact A.C. Burke**

For more information on this or other topics and or to discuss services by A.C. Burke or one of her colleagues at RB Health Partners, Inc., please contact A.C. at [ac@rbhealthpartners.com](mailto:ac@rbhealthpartners.com) or call A.C. at 727.786.3032.

<sup>1</sup> Hayden MK et al. Risk of hand or glove contamination after contact with patients colonized with vancomycin-resistant enterococcus or the colonized patients' environment. *Infection Control and Hospital Epidemiology*, 2008, 29:149–154.