

Health Care Cleaning and Sanitation Procedures Module Handwashing $^{\rm 3}$

Handwashing is the single most important procedure for preventing nosocomial infections. Handwashing is defined as "a vigorous, brief rubbing together of all surfaces of lathered hands, followed by rinsing under a stream of water." Although various products are available, handwashing can be classified simply by whether plain soap and/or detergents or antimicrobial-containing products are used. Handwashing with plain soaps or detergents (in bar, granule, leaflet, or liquid form) suspends microorganisms and allows them to be rinsed off. This process is often referred to as mechanical removal of microorganisms. Handwashing with antimicrobial-containing products kills or inhibits the growth of microorganisms. This process is often referred to as chemical removal of microorganisms.

When gloves are worn, handwashing is still recommended because gloves may become perforated during use and because bacteria can multiply rapidly on gloved hands.

Recommendations from the Center for Disease Control (C.D.C.)

- A. Handwashing indications
 - 1) In the absence of a true emergency, personnel should always wash their hands.
 - a. Before performing invasive procedures. (Category 1) *
 - b. Before taking care of particularly susceptible patients, such as those who are severely immunocompromised and newborns. (Category 1)
 - c. Before and after touching wounds, whether surgical, traumatic, or associated with an invasive device. (Category 1)
 - d. After situations during which microbial contamination of hands is likely to occur, especially those involving contact with mucous membranes, blood or body fluids, secretions, or excretions. (Category 1)
 - e. After touching inanimate sources that are likely to be contaminated with virulent or epidemiologically important microorganisms. These sources include urine-measuring devices or secretion-collection apparatuses. (Category 1)
 - f. After taking care of an infected patient or one who is likely to be colonized with microorganisms of special clinical or epidemiologic significance; e.g., multiple-resistant bacteria. (Category 1)
 - g. Between contact with different patients in high-risk units. (Category 1)
 - 2) Most routine, brief patient-care activities involving direct patient contact other than that discussed in A.1 above do not require handwashing; e.g., taking blood pressure. (Category 2)
 - 3) Most routine hospital activities involving indirect patient contact do not require handwashing; e.g., handing a patient medications, food, or other objects. (Category 1)
- B. Handwashing technique

For routine handwashing, a vigorous rubbing together of all surfaces of lathered hands for at least 10 seconds, 15 seconds preferred, followed by thorough rinsing under a stream of water. (Category 1)

³ Information taken from Guideline for Handwashing and Hospital Environmental Control





^{*} See definitions of categories on following page



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Handwashing ³ (continued)

- C. Handwashing with plain soap
 - 1) Plain soap should be used for handwashing unless otherwise indicated. (Category 2)
 - 2) If bar soap is used, it should be kept on racks that allow drainage of water. (Category 2)
 - 3) If liquid soap is used, the dispenser should be replaced or cleaned and filled with fresh product when empty. Liquids should not be added to a partially full dispenser. (Category 2)
- D. Handwashing with antimicrobial-containing products (Health-Care Personnel Handwashes)
 - 1) Antimicrobial handwashing products should be used for handwashing before personal care for newborns and when otherwise indicated during their care, between patients in high-risk units, and before care of severely immunocompromised patients. (Category 3)

Ranking Scheme for Recommendations of the C.D.C.

- Category 1 Measures in Category 1 are strongly supported by well-designed and controlled clinical studies that show their effectiveness in reducing the risk of nosocomial infections, or are viewed as effective by a majority of expert reviewers. Measures in this category are viewed as applicable for most hospitals regardless of size, patient population, or endemic nosocomial infection rates.
- Category 2 Measures in Category 2 are supported by highly suggestive clinical studies in general hospitals or by definitive studies in specialty hospitals that might not be representative of general hospitals. Measures that have not been adequately studied but have a logical or strong theoretical rationale indicating probable effectiveness are included in this category. Category 2 recommendations are viewed as practical to implement in most hospitals.
- Category 3 Measures in Category 3 have been proposed by some investigators, authorities, or organizations, but, to date, lack supporting data, a strong theoretical rationale, or an indication that the benefits expected from them are cost-effective. Thus, they are considered important issues to be studied. They might be considered by some hospitals for implementation, especially if the hospitals have specific nosocomial infection problems, but they are not generally recommended for widespread adoption.

