

# GUIDELINE FOR HAND HYGIENE

The Guideline for Hand Hygiene has been approved by the AORN Guidelines Advisory Board. It was presented as a proposed guideline for comments by members and others. The guideline is effective September 1, 2016. The recommendations in the guideline are intended to be achievable and represent what is believed to be an optimal level of practice. Policies and procedures will reflect variations in practice settings and/or clinical situations that determine the degree to which the guideline can be implemented. AORN recognizes the many diverse settings in which perioperative nurses practice; therefore, this guideline is adaptable to all areas where operative or other invasive procedures may be performed.

## Purpose

This document provides guidance for hand hygiene and surgical hand antisepsis in the perioperative setting. Hand hygiene is widely recognized as a primary method to prevent health care-associated infections and the transmission of pathogens in the health care setting.<sup>1</sup> Health care-associated infections can result in untoward patient outcomes, such as morbidity and mortality, pain and suffering, longer lengths of hospital stay, delayed wound healing, increased use of antibiotics, and higher costs of care.<sup>2</sup> Thus, prevention of health care-associated infections is a priority for all health care personnel. Hand hygiene and surgical hand antisepsis are effective and cost-efficient ways to prevent and control infections in the perioperative setting.

Normal skin flora on the hands include transient and resident microorganisms. Transient flora are microorganisms that colonize the superficial layers of the skin. Perioperative team members acquire these microorganisms while caring for patients and when coming into contact with contaminated environmental surfaces. Transient microorganisms are easier to remove by hand hygiene than are resident microorganisms, which are seated in the deeper layers of the skin. Skin and nail condition and the presence of jewelry contribute to the number of transient microorganisms on the hands.

The goal of surgical hand antisepsis is to remove soil and transient microorganisms from the hands of perioperative team members and suppress the growth of resident microorganisms for the duration of the surgical procedure to reduce the risk that the patient will develop a surgical site infection (SSI).<sup>3</sup> Safe and effective surgical hand antiseptics rapidly and persistently remove transient microorganisms and suppress the growth of resident microorganisms with minimal skin and tissue irritation.<sup>2</sup>

The perioperative registered nurse (RN) plays a crucial role in developing and implementing proto-

cols for hand hygiene and surgical hand antisepsis in the perioperative setting, including involvement in the selection of surgical hand antiseptics and hand hygiene products. This guideline provides perioperative RNs and other perioperative team members with evidence-based practice guidance for hand hygiene and surgical hand antisepsis to promote patient and personnel safety and reduce the risk for health care-associated infections, especially SSIs.

Hand hygiene in health care settings other than the perioperative setting is outside the scope of this document.

## Evidence Review

A medical librarian conducted a systematic search of the databases Ovid MEDLINE®, EBSCO CINAHL®, Scopus®, and the Cochrane Database of Systematic Reviews. The search was limited to literature published in English from January 2010 through September 2015. Between September 2015 and February 2016, the results of alerts established at the time of the initial search were assessed, and the lead author requested additional articles that either did not fit the original search criteria or were discovered during the evidence appraisal process. Finally, the lead author and the medical librarian identified relevant guidelines from government agencies, professional organizations, and standards-setting bodies.

The search was limited to the concept of hand hygiene to the perioperative setting. Hand hygiene search terms included the subject headings *hand-washing* and *hand disinfection*, supplemented by the keywords *hand washing*, *handwashing*, *hand hygiene*, *hand antisepsis*, *hand contamination*, and *hand decontamination*. Search terms related to the perioperative setting included the subject headings *operating rooms*, *surgicenters*, *anesthesia*, *perioperative care*, *perioperative period*, *perioperative nursing*, and *operating room personnel* and keywords such as *operating theater*, *surgical suite*, *operating suite*, and *perioperative setting*. To retrieve additional relevant articles, the keywords *surgical*, *preoperative*, *preoperative*, *presurgical*, and *pre-surgical* were combined with the keywords *hand antisepsis*, *wash*, *scrub*, *rub*, and *hand preparation*. Subject headings and keywords for cross-contamination and infection, fingernails and jewelry, skin irritation and inflammation, and specific antiseptic agents and products also were included.

Inclusion criteria were research and non-research literature in English, complete publications, and publication dates within the time restriction unless none were available. Excluded were non-peer-reviewed publications and literature on hand hygiene in patient care settings other than the perioperative setting. Editorials, news, and brief items were excluded.

