

Recommended Practices for Preoperative Patient Skin Antisepsis

The following Recommended Practices for Preoperative Patient Skin Antisepsis have been approved by the AORN Recommended Practices Advisory Board. They were presented as proposed recommendations for comments by members and others. They are effective August 15, 2014. These recommended practices are intended to be achievable recommendations representing 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 recommended practices can be implemented. AORN recognizes the many diverse settings in which perioperative nurses practice, and as such, these recommended practices are guidelines adaptable to all areas where operative and other invasive procedures may be performed.

Purpose

These recommended practices provide guidance for preoperative patient skin preparation, including preoperative patient bathing; preoperative hair removal; selection of skin antiseptics; application of antiseptics; and safe handling, storage, and disposal of antiseptics.

The goal of preoperative patient skin antisepsis is to reduce the risk of the patient developing a surgical site infection (SSI) by removing soil and transient microorganisms at the surgical site.¹ Reducing the amount of bacteria on the skin near the surgical incision lowers the risk of contaminating the surgical incision site.¹ As part of preparing the skin for antisepsis, preoperative bathing and hair management at the surgical site contribute to a reduction of microorganisms on the skin.²⁻⁴ Effective skin antiseptics rapidly and persistently remove transient microorganisms and reduce resident microorganisms to subpathogenic levels with minimal skin and tissue irritation.¹

Perioperative registered nurses (RNs) play a critical role in developing protocols for preoperative bathing, selecting and applying preoperative patient skin antiseptics, and facilitating appropriate hair removal when necessary. These recommended practices provide the perioperative RN and other perioperative team members with evidence-based practice guidance for preoperative patient skin antisepsis to promote patient safety and reduce the risk of SSI.

The following topics are outside the scope of this document: patient skin antisepsis after incision; antiseptic irrigation; preoperative patient skin antisepsis with no incision; patient skin antisepsis for postopera-

tive wound care, including suture removal; preoperative patient bathing not intended for surgical preparation; preoperative patient bathing for decolonization of *Staphylococcus aureus*; mechanical and oral antimicrobial bowel preparation; adhesive incise drapes; microbial sealants; and antimicrobial prophylaxis to reduce the microbial load on skin.

Evidence Review

A medical librarian conducted a systematic literature search of the databases MEDLINE®, CINAHL®, and the Cochrane Database of Systematic Reviews for meta-analyses, systematic reviews, randomized controlled and nonrandomized trials and studies, case reports, letters, reviews, and guidelines. Search terms included *surgical skin preparation, skin preparation, skin prep, skin antisepsis, skin antiseptic, sterile preparation, disinfectants, local anti-infective agents, antiseptic solution, preoperative care, perioperative nursing, preoperative, surgical procedures, surgical wound infection, skin, skin care, paint, scrub, antiseptic shower, antiseptic cloth, chlorhexidine wipe, preoperative shower, preoperative wash, preoperative bathing, bathing and baths, hair removal, shaving, depilation, depilatory, nonshaved, razor, clipping, clipper, povidone-iodine, chlorhexidine, iodine, iodophors, iodine compounds, 2-propanol, alcohols, baby shampoo, isopropyl alcohol, alcohol-based, parachloroxylenol, chloroxylenol, PCMX, DuraPrep, pHisoHex, Prevantics, Hibiclens, Techni-Care, Chloraprep, Betadine, Betasept, PVP-I Prep, ExCel AP, Castile, iodophor, cyanoacrylates, tissue adhesives, chemical burns, skin diseases, dermatitis, skin sensitivity, surgical fires, fires, flammability, flammable, penis, vagina, mucous membrane, stoma, fingernails, nail polish, artificial nails, jewelry, body piercing, body jewelry, and subdermal implant.*

The initial search, conducted on December 5, 2013, was limited to literature published in English between January 2006 and December 2013; however, the time restriction was not considered in subsequent searches. At the time of the search, the librarian also established weekly alerts on the topics included in the search and until February 2014, presented relevant alert results to the lead author.

Before the systematic search, the medical librarian had provided the lead author with a list of the citations from the 2008 revision of the AORN Recommended Practices for Preoperative Patient Skin Antisepsis for consideration for the 2014 revision. During the development of the guideline, the lead author requested additional articles that either did not fit the original search criteria or were discovered during the