

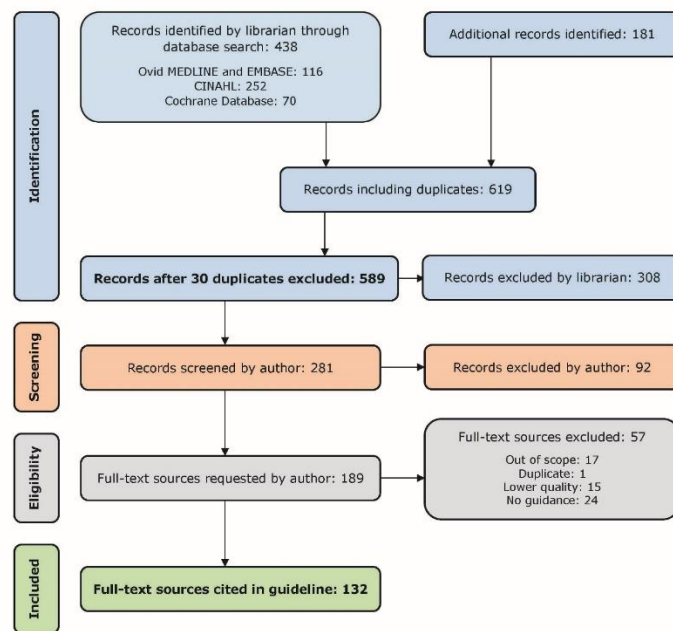
Evidence Review

The Guideline for Hand Hygiene was approved by the AORN Guidelines Advisory Board and became effective as of June 15, 2022.

A medical librarian with a perioperative background conducted a systematic search of Ovid MEDLINE, Ovid Embase, EBSCO CINAHL, and the Cochrane Database of Systematic Reviews. The search was limited to literature published in English from **March 2016** through **February 2021**. At the time of the initial search, weekly alerts were created on the topics included in that search. Results from these alerts were provided to the lead author until **September 2021**. The lead author requested additional articles that either did not fit the original search criteria or were discovered during the evidence appraisal process. The lead author and the medical librarian also identified relevant guidelines from government agencies, professional organizations, and standards-setting bodies. **Search terms** included *2-propanol, acrylic nails, alcohol, alcohol based hand sanitizer, alcohol based hand scrub, alcohol prohibition, allergic contact dermatitis, allergy, Alphadine, ambulatory surgery center, anesthesiologists, artificial nails, Asepsol, Avaguard, audits, bare below the elbows, betadine, Betaisodona, benzalkonium chloride, Birnbach, *contamination, cardiac catheterization laboratory, chaplains, chloroxylenol, clergy, clerics, compatible products, compliance, contact dermatitis, contact eczema, contact irritant dermatitis, contact sensitivity, cross contaminat*, cross infect*, deacons, dermatitis, dermatitis (allergic contact), dermatitis (contact), dermatitis (irritant), Disadine, Drapolene, eczema flare, electric eye faucets, endoscopy suite, exanthema, exudates and transudates, fingernails, gel nail overlay, gel nail polish, Germex, gloves, guideline adherence, hand antisept*, hand disinfect*, hand hygiene, hand sanitiz*, hand wash*, handwashing, henna, hexachlorophane, hypersensitivity, imams, infection, infection control, inflamed skin, interventional radiology, intraoperative period, iodine, irritant dermatitis, Islam, Isodine, isopropanol, isopropyl alcohol, pastors, perioperative care, perioperative nursing, perioperative period, perioperative setting, petrolatum, petroleum, petroleum jelly, policy compliance, povidone iodine, pre-operative hand antisepsis, pre-operative hand preparation, pre-operative rub, pre-operative scrub, pre-operative wash, pre-surgical hand antisepsis, pre-surgical hand preparation, pre-surgical rub, pre-surgical scrub, pre-surgical wash, preoperative hand antisepsis, preoperative hand preparation, preoperative rub, preoperative scrub, preoperative wash, preoperative period, presurgical, presurgical hand antisepsis, presurgical hand preparation, presurgical rub, presurgical scrub, presurgical wash, priests, procedural areas, protocol compliance, PVP-I, PVP-iodine, rabbis, radiology (interventional), rash, religious compliance, religious practices, rings, rubbing alcohol, scrub brush, scrub sink, self tanning products, skin cream, skin inflammation, skin irritation, skin lotion, skin rash, skin sloughing, squames, super shedder, surgical hand antisepsis, surgical hand preparation, surgical nursing, surgical rub, surgical scrub, surgical scrubbing, surgical suite, surgical wash, surgicenters, UV-cured nail polish, waterless hand sanitizer, wearable dispensers, wedding band, wedding ring, wood alcohol, and Zephiran*. Included were research and non-research literature in English, complete publications, and publications with dates within the time restriction when available. Excluded were non-peer-reviewed publications and older evidence within the time restriction when more recent evidence was available. Editorials, news items, and other brief items were excluded. Low-quality evidence was excluded when higher-quality evidence was available, and literature outside the time restriction was excluded when literature within the time restriction was available ([Figure 1](#)).

Articles identified in the search were provided to the project team for evaluation. The team consisted of the lead author and two evidence appraisers. The lead author divided the search results into topics and assigned members of the team to review and critically appraise each article using the AORN Research or Non-Research Evidence Appraisal Tools as appropriate. The literature was independently evaluated and appraised according to the strength and quality of the evidence. Each article was then assigned an appraisal score. The appraisal score is noted in brackets after each reference as applicable. Each recommendation rating is based on a synthesis of the collective evidence, a benefit-harm assessment, and consideration of resource use. The strength of the recommendation was determined using the AORN Evidence Rating Model and the quality and consistency of the evidence supporting a recommendation. The recommendation strength rating is noted in brackets after each recommendation.

Figure 1: PRISMA 2009 Flow Diagram



Adapted from Moher D, Liberati A, Tetzlaff J, Altman DG; The PRISMA Group. Preferred reporting items for systematic reviews and meta-analyses: The PRISMA Statement. PLoS Med. 2009;6(6):e1000097.

Each recommendation rating is based on a synthesis of the collective evidence, a benefit-harm assessment, and consideration of resource use. The strength of the recommendation was determined using the AORN Evidence Rating Model and the quality and consistency of the evidence supporting a recommendation. The recommendation strength rating is noted in brackets after each recommendation.

Publication History

- Originally published May 1976, AORN Journal, as “Recommended practices for surgical hand scrubs.”
- Revised March 1978, July 1982, May 1984, October 1990. Published as proposed recommended practices August 1994.
- Revised November 1998; published April 1999, AORN Journal. Reformatted July 2000.
- Revised November 2003; published in Standards, Recommended Practices, and Guidelines, 2004 edition. Reprinted February 2004, AORN Journal.
- Revised March 2009 for online publication in Perioperative Standards and Recommended Practices.
- Revised July 2009 for online publication in Perioperative Standards and Recommended Practices.
- Minor editing revisions made in October 2009 for publication in Perioperative Standards and Recommended Practices, 2010 edition.
- Reformatted September 2012 for publication in Perioperative Standards and Recommended Practices, 2013 edition.
- Minor editing revisions made in November 2014 for publication in Guidelines for Perioperative Practice, 2015 edition, as Guideline for Hand Hygiene.
- Revised September 2016 for online publication in Guidelines for Perioperative Practice.
- Evidence ratings revised and minor editorial changes made to conform to the current AORN Evidence Rating model, September 2019, for online publication in Guidelines for Perioperative Practice.

Scheduled for review in 2027.