

## Evidence Review

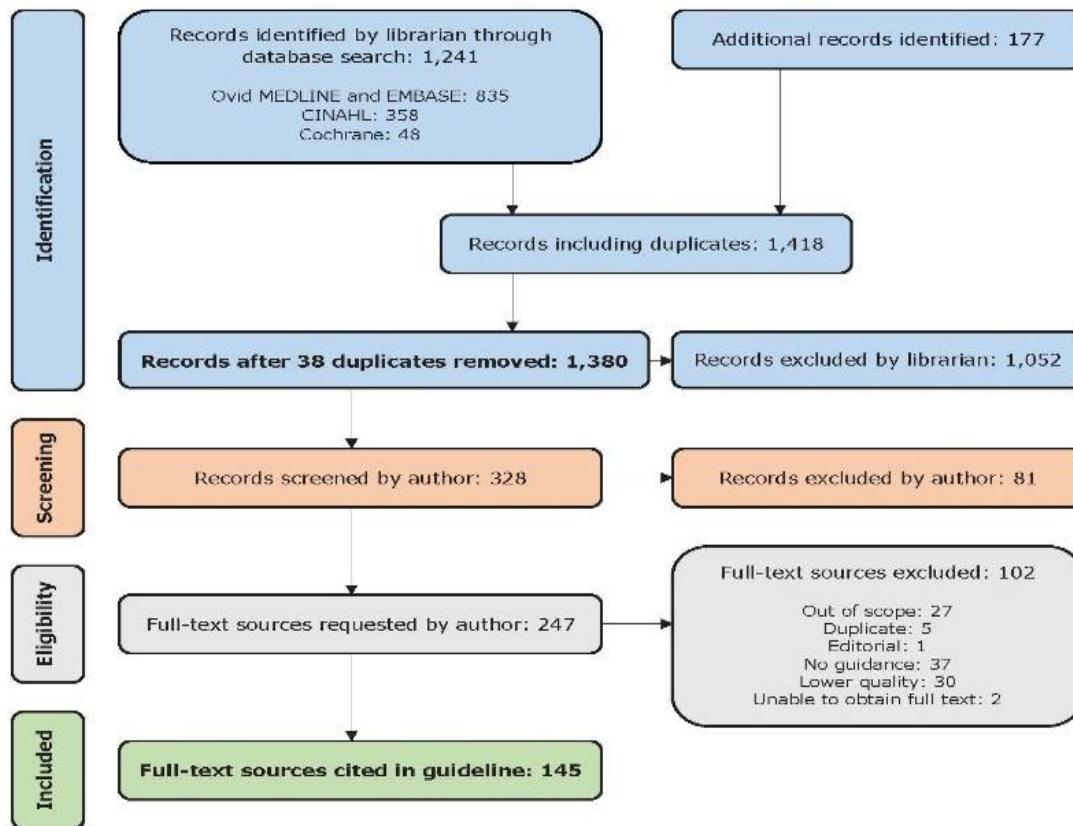
The Guideline for Environmental Cleaning was approved by the AORN Guidelines Advisory Board and became effective as of January 13, 2020.

A medical librarian with a perioperative background conducted a systematic search of the databases Ovid MEDLINE®, Ovid Embase®, EBSCO CINAHL®, and the Cochrane Database of Systematic Reviews. The search was limited to literature published in English from **January 2013 through November 2018**. 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 **May 2019**. 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 *adenosine triphosphate, air sampling, ambulatory surgery center/facilit\*, ants, aspergill\*, auto scrubber, bacterial count, bacterial load, bedding and linens, beds, bioluminescence detection, bleach, body fluids, central processing, central service department, central supply (hospital), checklist, cleaning program/ regimen/ schedule/ standard/ policies/ guideline/ protocol/ routine, cleaning zone, cleansing agents, cloths, cockroaches, colony count (microbial), contact surface, contact time, Creutzfeldt-Jakob disease/syndrome, cross infection, curtains, decontamination, decontamination (hazardous materials), detergents, diphtheria, disease reservoirs, disease transmission (infectious), disinfectants, disinfection, dust, dwell time, enhanced environmental cleaning, environmental microbiology/ monitoring/ cleaning/ services/ surface, fleas, flies, fluid waste management, fluorescent light, fomites, gram-negative bacteria, gram-positive bacteria, green cleaning, healthcare associated infection, heater-cooler, high-touch objects/surfaces, hospital housekeeping, hospital laundry service, housekeeping department, housekeeping (hospital), hydrogen peroxide, ice machine, infection control, insects, keyboard covers, laundry, laundry department, laundry service (hospital), lice, luminescent measurements, mattresses, microbial colony count, microfibr\*, mites, mouse, nosocomial infection, occupational health/exposure/injuries/safety, operating room tables, operating rooms/suites/theat\*, ozone, patient monitors/transfer board, pest control/management, phenols, Phthiraptera, previous patient, prior patient/room occupant, quaternary ammonium compounds/disinfectant, room contamination, scrub sink, silver, Siphonaptera, sodium hypochlorite, solvents, sterile processing/supply, sterilization and disinfection, sticky mat, storage areas, subacute spongiform encephalopathy, surgical wound infection, surgical wound infection, surgicenters, tacky mat, terminal cleaning/disinfection/decontamination, textiles, ultraviolet light, ultra-violet light, ultraviolet rays, vermin, viruses, visual inspection, waste disposal (fluid), and wet time*. Included were research and non-research literature in English, complete publications, and publications with dates within the time restriction when available. Historical studies were also included. 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 one evidence appraiser. The lead author and the evidence appraiser reviewed and critically appraised each article using the AORN Research or Non-Research Evidence Appraisal Tools as appropriate. A second appraiser was consulted if there was a disagreement between the lead author and the primary evidence appraiser. 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.

## Publication History

- Originally published June 1975, *AORN Journal*, as “Recommended practices for sanitation in the surgical practice setting.”
- Format revised March 1978; March 1982; July 1982. Revised April 1984; November 1988; December 1992.
- Revised June 1996; published October 1996, *AORN Journal*. Reformatted July 2000.
- Revised; published December 2002, *AORN Journal*.
- Revised 2007; published in *Perioperative Standards and Recommended Practices*, 2008 edition.
- Minor editing revisions made to omit PND codes; reformatted September 2012 for publication in *Perioperative Standards and Recommended Practices*, 2013 edition.
- Revised September 2013 for online publication in *Perioperative Standards and Recommended Practices*.
- Minor editing revisions made in November 2014 for publication in *Guidelines for Perioperative Practice*, 2015 edition.
- Evidence ratings revised in *Guidelines for Perioperative Practice*, 2018 edition, to conform to the current AORN Evidence Rating Model.
- Revised 2019 for publication in *Guidelines for Perioperative Practice*, 2020 edition.

Scheduled for review in 2025