

Evidence Review

The Guideline for Transmission-Based Precautions was approved by the AORN Guidelines Advisory Board and became effective as of December 1, 2018.

A medical librarian with a perioperative nursing background 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 **2012 through 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 **April 2018**. 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.

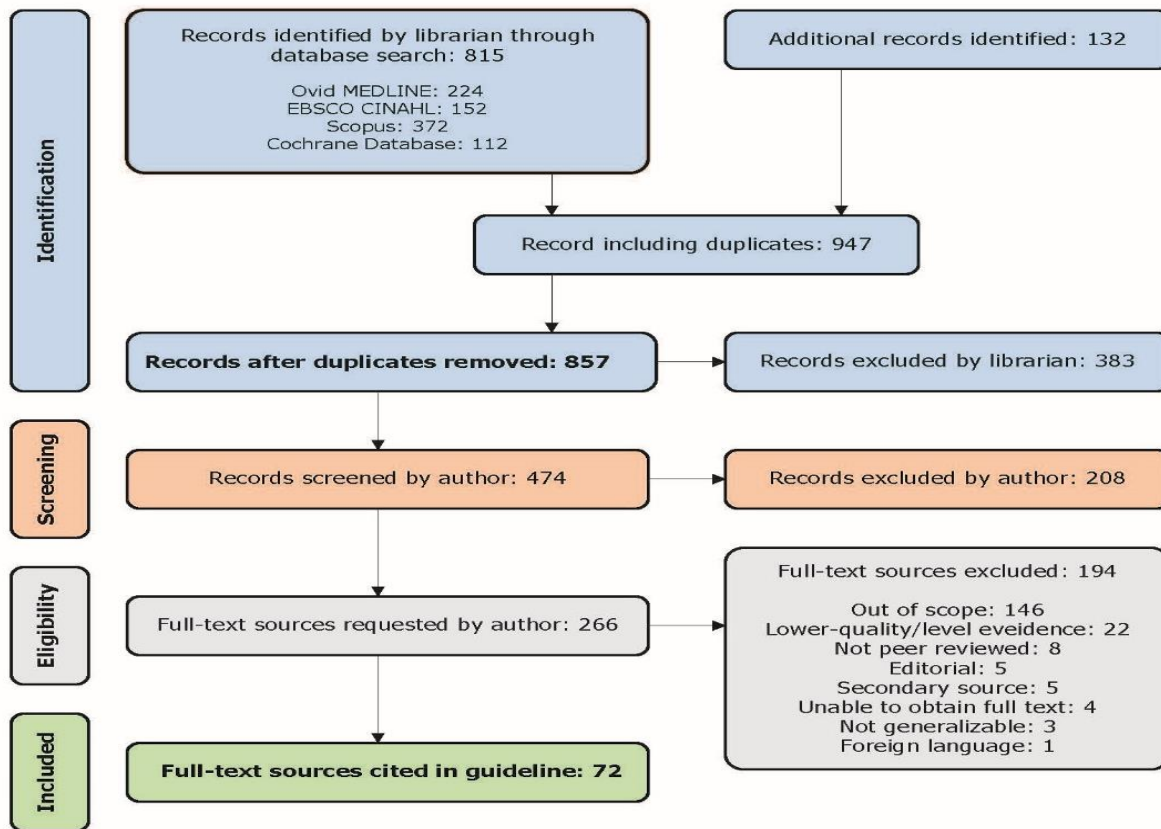
Search terms included *airborne precautions, biological warfare, biological warfare agents, bioterrorism, blood-borne pathogens, chemical terrorism, chemical warfare, Clostridium difficile, communicable diseases, disaster planning, disease outbreaks, disease transmission (horizontal, infectious, patient-to-professional, professional-to-patient), doffing, donning, droplet precautions, drug resistance (microbial), Ebola, Ebola virus, Ebolavirus, emergency preparedness, extensively drug-resistant tuberculosis, gram-negative bacteria, gram-negative bacterial infections, gram-positive bacteria, hemorrhagic fever (Ebola, viral) HEPA filter, hepatitis C, hepatitis (viral, human), herpesvirus, HIV infections, HIV-infected patients, infectious disease transmission, infectious skin diseases, isolation precautions, latent tuberculosis, meningitis (viral), methicillin resistance, methicillin-resistant Staphylococcus aureus, microbial drug resistance, multidrug resistant organism, needle stick injuries, needlestick injuries, negative pressure environment, patient isolation, personal protective equipment, quarantine, skin diseases (infectious, viral), staging wound closure, standard precautions, Staphylococcus aureus, TB precautions in tissue, transmissible infections, tuberculosis, tuberculosis (central nervous system, cutaneous, gastrointestinal, meningeal, multidrug-resistant, ocular, pulmonary), tuberculosis cutaneous precautions, tuberculosis precautions, tuberculosis tissue precautions, universal precautions, vancomycin resistance, vancomycin-resistant Enterococci, viral hepatitis, viral meningitis, and viral skin diseases.*

Included were research and non-research literature in English, complete publications, and publication 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 one evidence appraiser. The lead author divided the search results into topics. The members of the team reviewed and critically appraised 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, Atman 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 February 1993, *AORN Journal*, as “Recommended practices for universal precautions in the perioperative practice setting.”
- Revised November 1998 as “Recommended practices for standard and transmission-based precautions in the perioperative practice setting”; published February 1999, *AORN Journal*. Reformatted July 2000.
- Approved June 2006, AORN Board of Directors, as “Recommended practices for prevention of transmissible infections in perioperative practice settings.” Published in *Standards, Recommended Practices, and Guidelines*, 2007 edition.
- Revised and reformatted December 2012 for online publication in *Perioperative Standards and Recommended Practices*.
- Evidence ratings revised 2013 to conform to the AORN Evidence Rating Model.
- Minor editing revisions made in November 2014 for publication in *Guidelines for Perioperative Practice*, 2015 edition.
- Revised December 2018 for publication in *Guidelines for Perioperative Practice* online.
- 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 2024, on hold pending publication of CDC updated Isolation Precautions (expected mid-2024).