

Evidence Review

The Guideline for Sharps Safety was approved by the AORN Guidelines Advisory Board and became effective as of November 1, 2019.

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 December 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 **February 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.

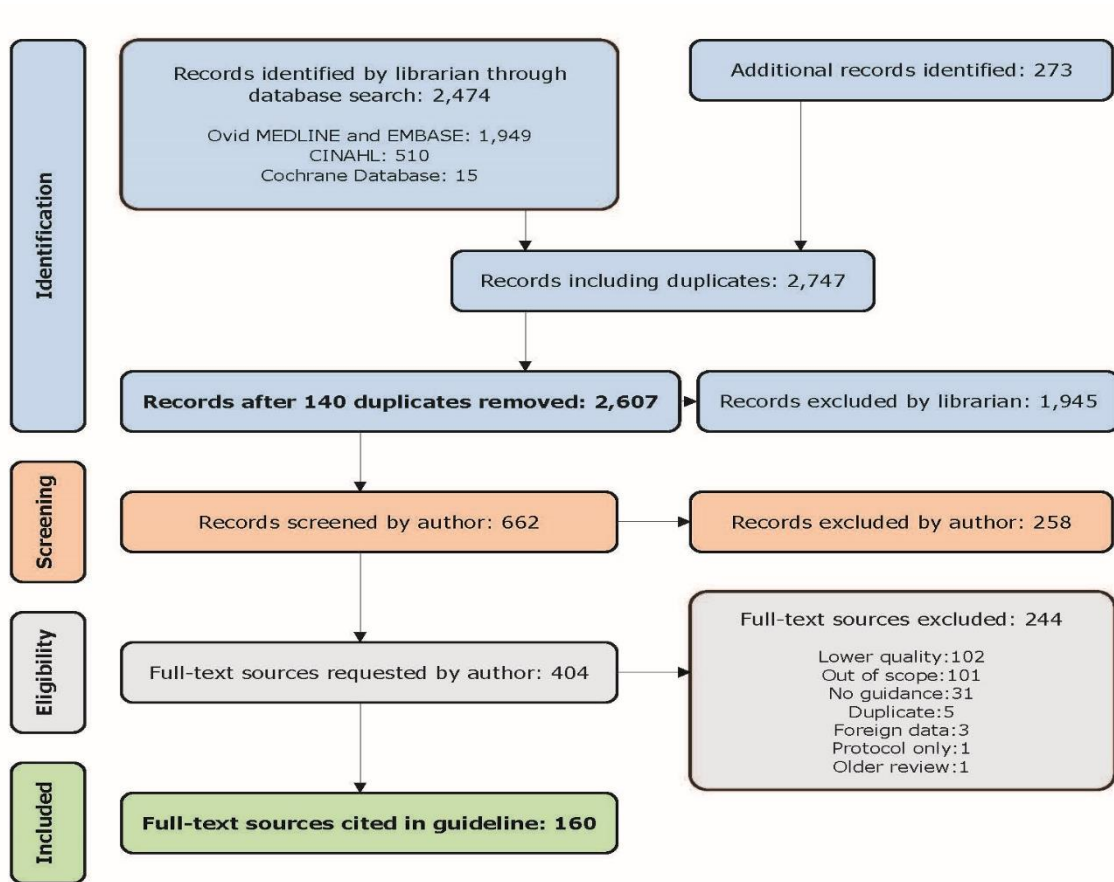
Search terms included *accidents (occupational), bacteria-inhibiting gloves, blood exposure accident, bloodborne pathogens, blood-borne pathogens, blunt tip needles, double gloving, hands-free passing, hypodermic needles, hypodermic syringe, industrial accidents, infection control (instruments, equipment and supplies, methods, standards), needles, needlestick injuries, neutral zone, occupational blood exposure, occupational exposure, occupational injuries, occupational-related injuries, percutaneous exposure, percutaneous injury, protective devices, recapping, safety devices, safety scalpels, safety-engineered sharps, scalpel injuries, scalpels, sharps, sharps injuries, standard precautions, surgical hooks, surgical instruments, surgical staples, surgical stapling, sutures, syringes, universal precautions, virus-inhibiting gloves, wirestick injuries, and wire-stick injury.*

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, 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 June 2013 online 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.
- Evidence ratings revised in *Guidelines for Perioperative Practice*, 2018 edition, to conform to the current AORN Evidence Rating Model.
- Revised 2019 for online publication in *Guidelines for Perioperative Practice*.

Scheduled for review in 2024.