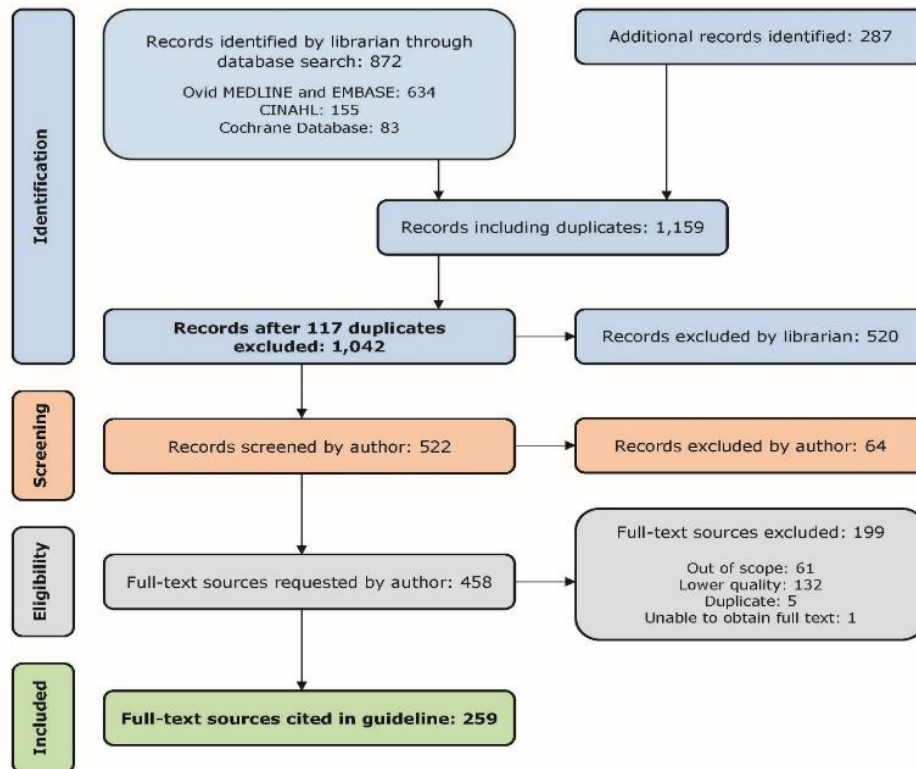


Evidence Review

The Guideline for Processing Flexible Endoscopes was approved by the AORN Guidelines Advisory Board and became effective as of September 15, 2022.

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 2015 through March 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 **February 2022**. 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 *access to health care, acetic acid, advanced sterilization products, Ambu, allergic reaction, allergy, automated endoscope reprocessor, availability of health services, bacterial adhesion, biocide, biofilms, biofoul, borescope, Boston Scientific, bronchoscopes, CaviCide, chemical safety, chemical safety measures, chlorine dioxide wipes, cholangiopancreatography (endoscopic retrograde), Cidex, Circon-Gyrus ACMI, cleaning verification, cleansing agents, colonoscopes, cross infection, cystoscopes, decontamination, detergents, disinfectants, disinfection, drying cabinet, duodenoscopes, duodenoscopy, elevator channel, elevator mechanism, endoscope sheath, endobronchial ultrasound bronchoscope, endoscope storage, endoscope tip protector, endoscopes, endoscopic retrograde cholangiopancreatography, endoscopic surgical procedures, endoscopic ultrasound scope, endoscopy, ENT endoscopes, enzymatic detergents, equipment contamination, ERCP scope, flexible bronchoscope*, flexible colonoscopy*, flexible cystoscopy*, flexible duodenoscopy*, flexible endoscopy*, flexible gastroscopy*, flexible hysteroscopy*, flexible laryngoscopy*, flexible ureteroscopy*, fomites, Fujinon, gastroscopes, glutaraldehyde, glutaral, health care associated infection, health care inequalities, health services accessibility, health services availability, health services needs and demand, healthcare associated infection, healthcare disparities, helicobacter infections, Helicobacter pylori, high-level disinfection, hospital infections, hypersensitivity, hysteroscopes, infection control, instrument air, instrument disinfectant, ionized water, laryngoscopes, leak detection, leak test, magnification, mechanical processor, medically underserved area, medically underserved population, Medivator, natural orifice endoscopic surgery, natural orifice transluminal endoscopy, nosocomial infection, occupational exposure, occupational hazards, occupational safety, Olympus, Pentax, Phazyme 125, physician shortage area, protective clothing, protein test, racial disparities, reprocessing, Richard Wolf, Scope Buddy, scope sheath, simethicone, social determinants of health, Spaulding, sterile water, sterilization, sterilization and disinfection, Steris, storage cabinet, storage sheath, Storz, surgical endoscopy, underserved patients, underserved population, ureteroscopes, video laryngoscope, washer disinfectant, washing system, water microbiology, and water supply. 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, editorials, and news items. 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**).*

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.

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 in the event of 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.

Publication History

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- Revised September 2022 for online publication in *Guidelines for Perioperative Practice*.

Scheduled for review in 2027.