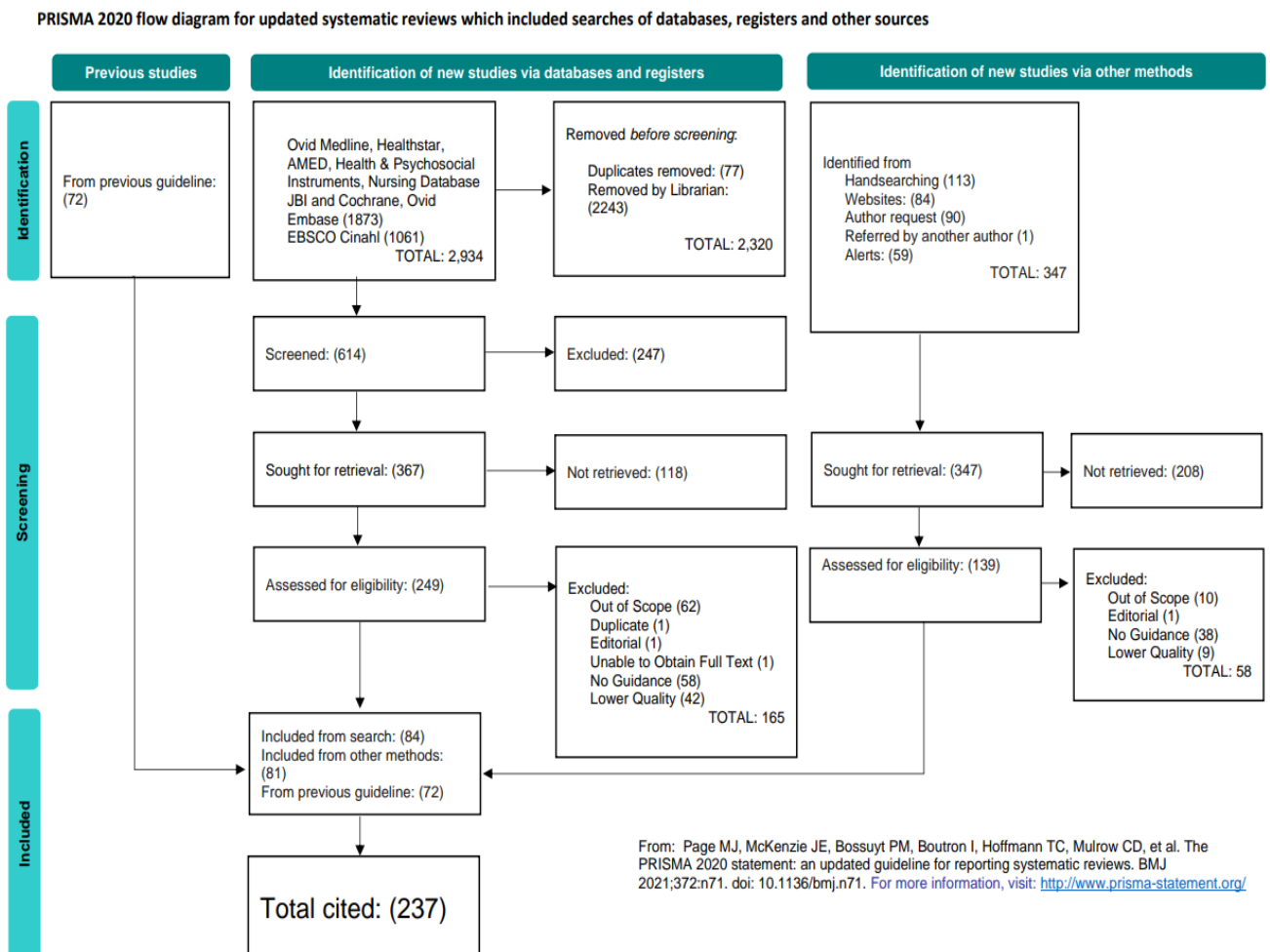The Guideline for Design and Maintenance of the Surgical Suite was approved by the AORN Guidelines Advisory Board and became effective as of July 20, 2023.

EVIDENCE REVIEW

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 2018 through March 2022. 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 June 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.

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. 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 third 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. See the PRISMA 2020 flow diagram (**Figure 1**) below for more information about the systematic review and nature of included studies and resources.

Figure 1: PRISMA 2020 Flow Diagram

PRISMA 2020 flow diagram for updated systematic reviews which included searches of databases, registers and other sources

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71. For more information, visit: http://www.prisma-statement.org/

On March 1, 2022, a medical librarian with a perioperative background conducted searches for relevant publications on websites of organizations selected by the author (including government departments). Full details of these supplementary searches is included in the Supplementary Content on the aorn.org web site. These results were also screened by two screeners: the medical librarian, and then the lead author.

On March 21, 2022, a medical librarian with a perioperative background conducted a systematic search of 16 health science databases, the names and date coverage of which are given in Table 1. These results were screened by the medical librarian, and then the lead author.

Table 1: Databases searched and coverage

Database	Coverage
AORN Full Text Journals@Ovid	
Books@Ovid	
JBI EBP Database	Current
EBM Reviews - ACP Journal Club	1991 to Current
EBM Reviews - Cochrane Central Register of Controlled Trials	Current
EBM Reviews - Cochrane Database of Systematic Reviews	2005 to Current
EBM Reviews - Cochrane Clinical Answers	Current
AMED (Allied and Complementary Medicine)	1985 to Current
Embase	1974 to Current
Health and Psychosocial Instruments	1985 to Current
Ovid Healthstar	1999 to Current
Ovid MEDLINE(R) ALL	1946 to Current
Ovid Nursing Database	1946 to Current
EBSCOhost CINAHL	1937 to Current

Search strategy development process: The medical librarian referred to a search strategy used for the previous Guideline. A draft search strategy was developed using terms listed in the previous strategy and additional search terms identified from a meeting with the lead author. Using the MeSH Subject Headings database, additional search terms were identified and added to the search strategy. The strategy was limited following the constraints in the eligibility criteria outlined by the lead author.

Editor's note: *MEDLINE is a registered trademark of the US National Library of Medicine's Medical Literature Analysis and Retrieval System, Bethesda, MD. Embase is a registered trademark of Elsevier B.V., Amsterdam, The Netherlands. CINAHL, Cumulative Index to Nursing and Allied Health Literature, is a registered trademark of EBSCO Industries, Birmingham, AL.*

Search Strategies

Ovid (Medline, Cochrane, and Embase)

1   "Air Pollution, Indoor"/ae, ec, pc or "Anesthetics, Inhalation"/ae, ip, po, to, st or Dust/pc or "Electromagnetic Fields"/ae or "Equipment Contamination"/ec, pc or Fungi/gd, ip or Humidity/pc, st or "Occupational Exposure"/ae, ec, pc, st or "Workplace Violence"/ec, pc or ("air pollution, indoor" or "Anesthetics, Inhalation" or "Air Microbiology").de,sh,hw. or ("indoor air" adj2 (pollution or quality)).ti,ab. or ("Inhalation Anesthetics" or "Anesthetic Gases" or "Waste Anesthetic Gases" or Mycoses or "Microbial Colony Count" or "EMI Minimization" or "Electromagnetic Interference Minimization" or "Anesthesia Equipment" or "Air Contamination" or "Airborne Particles").ti,ab.

2   "Hazardous Substances"/ae, ip, po, to, st or "Particulate Matter"/ae, ip, po, st, to or violence/pc or ("Hazardous Substances" or "Particulate Matter" or violence).de,sh,hw. or (biohazards or "assaultive behavior" or "Ultrafine Particles").ti,ab. or (Hazardous adj2 (Material or Chemicals)).ti,ab. or ((airborne or ultrafine) adj2 "particulate matter").ti,ab.

3   1 or 2

4   Automation/ec or "Computer Security"/ec or (Privacy or Confidentiality or "Health Records, Personal" or "Health Insurance Portability and Accountability Act").de,sh,hw. or (Cybersecurity or "Confidential Information" or "Patient Data Privacy" or HIPAA or "Kassebaum Kennedy Act" or "Kennedy Kassebaum Act" or "PL 104-191" or "Public Law 104-191" or "Health Care Technology" or Interoperability).ti,ab

5   (((personal or protected) adj2 (health or medical or patient) adj2 (information or records)) or (data adj2 (ecrypt$ or protect$ or secur$))).ti,ab.

6   4 or 5

7   "Waste Products"/ae, ec or ("Medical Waste" or "Conservation of Natural Resources").de,sh,hw. or ("Environmental Protection" or "Certified Green" or "Energy Conservation" or "Green Retrofit").ti,ab.

8   "Mobile Health Units"/ec, td or Pandemics/ec, pc or "Climate Change".de,sh,hw. or ("Communication System Failure" or "Catastrophic Events" or "Damage Assessment" or "Emergency Preparedness Renovations" or "Field Hospitals" or "Mobile Hospitals" or "Contingency Plan" or "Power Failure" or "Power System Failure" or "Utility Failure" or "Utility Service Interruption").ti,ab.

9   ("Delivery of Health Care" or "Healthcare Disparities" or "Medically Underserved Area").de,sh,hw. or ("Medically Underserved Population" or "Minority Health" or "Healthcare Inequalities" or "Health Care Equity" or "Health Care Delivery").ti,ab.

10   "Air Conditioning"/ae, ec, is, mt or "Gas Scavengers"/ec or Lighting/ec, is, mt or "Sanitary Engineering"/ec or ("Environment, Controlled" or Temperature or Workflow).de,sh,hw. or ("Climate Control" or "Administrative Areas" or "Break Room Lighting" or "Changing Room" or "Disposal Systems" or Dehumidifiers or "Equipment Storage" or "Clean Rooms" or "Controlled Environment" or "Laminar Air-Flow Areas" or "Electrical Load Capacity" or "Free Standing Fans" or "Anesthetic Gas Scavengers" or "Germicidal Irradiation" or "Herman Miller Cart" or Hopper or "Hybrid Operating Room" or "HVAC Setback" or Illumination or "Waiting Areas" or "Layout of Facility" or "Locker Room" or "Laminar Airflow" or "Minimally Invasive Surgery" or "Night Setback" or "Operating Room Space" or "Operating Room Cabinets" or "Operating Room Storage" or "Occupant Comfort" or "Operating Room Traffic Patterns" or "Pressure Gradients" or "Portable Humidifiers" or "Restricted area" or "Return Air Ducts" or Plumbing or "Substerile Room" or "Surgical Lights" or "Self-Disinfecting Surfaces" or "Surgical Space Zones" or "Storage Cabinets" or "Support Areas" or "Sterile Supply" or "Surface Requirements" or "Storage of Sterilized Equipment" or "Sterile Processing Areas" or "Staff Lounge Lighting" or "Semi-Restricted Area" or "Transition Zone" or "Task Lighting" or "Traffic Patterns" or "Traffic Flow" or "Traffic Deterrents" or "Unidirectional System" or "Unoccupied Setback" or "Ventilation Setback System Protocol" or "Workplace Lighting").ti,ab.

11   ("Ambulatory Care Facilities" or "Operating Rooms" or "Operating Room Nursing").de,sh,hw. or (Operating adj2 Theat*).ti,ab. or ("Perioperative Nurses" or "Ambulatory Surgery Center" or "Interdisciplinary Team" or "Multidisciplinary Team").ti,ab.

12   3 and 11

13   6 and 11

14   7 and 11

15   8 and 11

16   9 and 11

17   10 and 11

18   12 or 13 or 14 or 15 or 16 or 17

19   limit 18 to (english language and yr="2018 -Current")

20   19 not (conference or proceedings or abstract).pt.

21   remove duplicates from 20

EBSCOhost (CINAHL)

S1   ((MH "Air Pollution, Indoor/AE/EC/PC") OR (MH "Air Pollutants, Occupational/AE/EC") OR (MH "Workplace Violence/EC/PC") OR (MH "Air Microbiology")) OR "Anesthetics, Inhalation" OR "Electromagnetic Fields" OR "Equipment Contamination" OR "Occupational Exposure" OR Fungi OR dust OR humidity

S2   (("Inhalation Anesthetics" or "Anesthetic Gases" or "Waste Anesthetic Gases" or Mycoses or "Microbial Colony Count" or "EMI Minimization" or "Electromagnetic Interference Minimization" or "Anesthesia Equipment" or "Air Contamination" or "Airborne Particles")) OR ("indoor air" N2 (pollution or quality)))

S3   (MH "Particulate Matter/AE/ST") OR biohazards OR "assaultive behavior" OR "Ultrafine Particles" OR ((airborne or ultrafine) N2 "particulate matter") OR (Hazardous N2 (Material or Chemicals))

S4   S1 OR S2 OR S3

S5   (MH "Data Security/EC") OR (Automation or "Computer Security") OR Privacy OR Confidentiality OR "Health Records, Personal" OR ("Health Insurance Portability and Accountability Act") OR (Cybersecurity or "Confidential Information" or "Patient Data Privacy" or HIPAA or "Kassebaum Kennedy Act" or "Kennedy Kassebaum Act" or "PL 104-191" or "Public Law 104-191" or "Health Care Technology" or Interoperability) OR ((personal or protected) N2 (health or medical or patient) N2 (information or records)) OR (data N2 (ecrypt* or protect* or secur*))

S6   ((MH "Waste Products/AE/EC") OR (MH "Conservation of Natural Resources") OR (MH "Medical Waste")) OR (("Environmental Protection" or "Certified Green" or "Energy Conservation" or "Green Retrofit")

S7   ((MH "Climate Change") OR (MH "Mobile Health Units/EC/TD")) OR pandemics OR (Communication System Failure" or "Catastrophic Events" or "Damage Assessment" or "Emergency Preparedness Renovations" or "Field Hospitals" or "Mobile Hospitals" or "Contingency Plan" or "Power Failure" or "Power System Failure" or "Utility Failure" or "Utility Service Interruption")

S8   (MH "Healthcare Disparities") OR ("Delivery of Health Care" or "Medically Underserved Area" or "Medically Underserved Population" or "Minority Health" or "Healthcare Inequalities" or "Health Care Equity" or "Health Care Delivery")

S9   ((MH "Environment, Controlled") OR (MH "Air Conditioning/AE/EC/MT")) OR ("Gas Scavengers" or Lighting or "Sanitary Engineering" or Temperature or Workflow or "Climate Control" or "Administrative Areas" or "Break Room Lighting" or "Changing Room" or "Disposal Systems" or Dehumidifiers or "Equipment Storage" or "Clean Rooms" or "Controlled Environment" or "Laminar Air-Flow Areas" or "Electrical Load Capacity" or "Free Standing Fans" or "Anesthetic Gas Scavengers" or "Germicidal Irradiation" or "Herman Miller Cart" or Hopper or "Hybrid Operating Room" or "HVAC Setback" or Illumination or "Waiting Areas" or "Layout of Facility" or "Locker Room" or "Laminar Airflow" or "Minimally Invasive Surgery" or "Night Setback" or "Operating Room Space" or "Operating Room Cabinets" or "Operating Room Storage" or "Occupant Comfort" or "Operating Room Traffic Patterns" or "Pressure Gradients" or "Portable Humidifiers" or "Restricted area" or "Return Air Ducts" or Plumbing or "Substerile Room" or "Surgical Lights" or "Self-Disinfecting Surfaces" or "Surgical Space Zones" or "Storage Cabinets" or "Support Areas" or "Sterile Supply" or "Surface Requirements" or "Storage of Sterilized Equipment" or "Sterile Processing Areas" or "Staff Lounge Lighting" or "Semi-Restricted Area" or "Transition Zone" or "Task Lighting" or "Traffic Patterns" or "Traffic Flow" or "Traffic Deterrents" or "Unidirectional System" or "Unoccupied Setback" or "Ventilation Setback System Protocol" or "Workplace Lighting")

S10   ((MH "Perioperative Nursing") OR (MH "Operating Room Personnel") OR (MH "Operating Rooms") OR (MH "Operating Room Traffic Patterns")) OR ("Ambulatory Care Facilities" or "Operating Room Nursing") OR Operating N2 Theat* OR ("Perioperative Nurses" or "Ambulatory Surgery Center" or "Interdisciplinary Team" or "Multidisciplinary Team")

S11   S4 AND S10

S12   S5 AND S10

S13   S6 AND S10

S14   S7 AND S10

S15   S8 AND S10

S16   S9 AND S10

S17   S11 OR S12 OR S13 OR S14 OR S15 OR S16

S18   S11 OR S12 OR S13 OR S14 OR S15 OR S16   Limiters - Published Date: 20180101-20220331; English Language; Peer Reviewed; Exclude MEDLINE records

Web Searches// All searches conducted in 2022.

7/11: Author request for info on OSHA reg requirements on construction/ renovation/ confined spaces.> Used google.com to search for author supplied web site (https://www.osha.gov/confined-spaces/standards)> Under "Standards and Enforcement", clicked "More"> Browsed resources and saved for author screening. (x3)

4/1: EIC of GLs suggested web site; used google.com to search org name, "American College of Healthcare Architects."> Chose "healtharchitects.org" web site.> Chose "Resources" from top nav bar> Chose "White papers" from menu> Saved list for author screening. (x3)

4/1: Discussion with editor in chief; suggestion of NIHD as web resource for author of D&M GL> used Google to search for NIHD> Noticed "NIHD Book" as menu option at top of page.> Clicked on NIHD book link, saved citation for author screening.

3/9: Used google.com to search for "association of surgical technologists"> Chose first result, " Association of Surgical Technologists https://www.ast.org As the oldest and most widely recognized professional organizations for surgical technologists, AST's primary purpose is to ensure that surgical technologists ..."> Under "About", chose "Position Statements."> Scrolled to result; saved for author screening.

3/9: Used google.com to search for "american nurses association"> Chose second result, " American Nurses Association: ANA Enterprise https://www.nursingworld.org We're here to improve patient care through supporting both individuals and organizations to advance the nursing profession. From advocating in the halls of ..."> Chose "Practice & Advocacy" from menu bar> Chose "Work Environment"> Chose "Health & Safety" from L nav bar> Chose "End Nurse Abuse"> Scrolled to "Educate Yourself"; saved resource for author screening.

3/9: Used google.com to search for "american nurses association"> Chose second result, " American Nurses Association: ANA Enterprise https://www.nursingworld.org We're here to improve patient care through supporting both individuals and organizations to advance the nursing profession. From advocating in the halls of ..."> Chose "Practice & Advocacy" from menu bar> Chose "Work Environment"> Chose "Health & Safety" from L nav bar> Chose "Disaster Preparedness" from L nav bar> Expanded "ANA Resources"; saved resource for author screening.

3/9: Used google.com to search for "american nurses association"> Chose second result, " American Nurses Association: ANA Enterprise https://www.nursingworld.org We're here to improve patient care through supporting both individuals and organizations to advance the nursing profession. From advocating in the halls of ..."> Chose "Practice & Advocacy" from menu bar> Chose "Work Environment"> Chose "Health & Safety" from L nav bar> Chose "Disaster Preparedness" from L nav bar> Scrolled to "Helping You Be Prepared"; saved resource for author screening. (x5)

3/9: Used google.com to search for "acorn australian college of operating room nurses"> Chose first result, " Australian College of Perioperative Nurses | ACORN https://www.acorn.org.au Australian College of Perioperative Nurses | ACORN. ... Perioperative Fundamentals: Fluid and electrolytes 6th April 2022 This webinar is part of the ..."> Chose "Standards" from menu bar> Saved resource for author screening.

3/9: Used google.com to navigate to "International Association for Healthcare Security and Safety"> Chose first result, "International Association for Healthcare Security and Safety https://www.iahss.org Earn your Certified Healthcare Security Officer (CHSO) certification with the IAHSS Basic Training and Exam. The Basic course covers defining ..."> Under "Member Resources," chose "Guidelines (Industry & Design)"> Saved for author screening.

3/9: Used google.com to navigate to "International Association for Healthcare Security and Safety"> Chose first result, "International Association for Healthcare Security and Safety https://www.iahss.org Earn your Certified Healthcare Security Officer (CHSO) certification with the IAHSS Basic Training and Exam. The Basic course covers defining ..."> Under "Member Resources," chose "Guidelines (Industry & Design)"> Scrolled to "*Guidelines Preview- Available to the Public"; saved for author screening.

3/9: Used google.com to search "ansi"> Chose second result, "American National Standards Institute - ANSI Home https://www.ansi.org The American National Standards Institute - ANSI - facilitates and corrdinates the U.S. voluntary standards and conformity assessment system." and chose the "ANSI Home" option.> Chose "Access Document Libraries"> Chose "Access Public Documents."> Under "Standards Activities", chose "ANSI Energy Efficiency Standardization Coordination Collaborative."> Opened "Published Roadmap and Progress Report"> Opened document, saved for author screening.

3/9: Consulted NFPA resources used in creating the current GL> Used google.com to navigate to nfpa.org> Chose "Codes and Standards" from menu bar> Chose "List of All Codes and Standards"> Entered "110" in search box> Clicked on name of code returned by search> Saved resource for author screening.

3/9: Consulted NFPA resources used in creating the current GL> Used google.com to navigate to nfpa.org> Chose "Codes and Standards" from menu bar> Chose "List of All Codes and Standards"> Entered "13" in search box> Clicked on name of code returned by search> Saved resource for author screening.

3/9: Consulted NFPA resources used in creating the current GL> Used google.com to navigate to nfpa.org> Chose "Codes and Standards" from menu bar> Chose "List of All Codes and Standards"> Entered "99" in search box> Clicked on name of code returned by search> Saved resource for author screening.

3/9: Consulted NFPA resources used in creating the current GL> Used google.com to navigate to nfpa.org> Chose "Codes and Standards" from menu bar> Chose "List of All Codes and Standards"> Entered "101" in search box> Clicked on name of code returned by search> Saved resource for author screening.

3/8: Used google.com to search "ashe"> Chose second result, "ASHE - Home | ASHE https://www.ashe.org The American Society for Health Care Engineering (ASHE) is the largest association dedicated to optimizing the health care built environment."> Chose the "News & Resources" drop down menu and then "Resource Library"> Filtered results by "Compliance Tools"> Browsed list of resources> Visited CDC site for Emergency preparedness (https://emergency.cdc.gov/planning/index.asp)> Scrolled to resources relevant to "Healthcare Facilities and Providers"> Saved resource for author screening.

3/8: Used google.com to search "ashe"> Chose second result, "ASHE - Home | ASHE https://www.ashe.org The American Society for Health Care Engineering (ASHE) is the largest association dedicated to optimizing the health care built environment."> Chose the "News & Resources" drop down menu and then "Resource Library"> Filtered results by "Compliance Tools"> Browsed list of results; saved resource for author screening. (x10)

3/8: Used google.com to search "ashe"> Chose second result, "ASHE - Home | ASHE https://www.ashe.org The American Society for Health Care Engineering (ASHE) is the largest association dedicated to optimizing the health care built environment."> Chose the "News & Resources" drop down menu and then "Resource Library"> Filtered results by "Guides/ Reports"> Browsed list of results; saved resource for author screening. (x2)

3/8: Used google.com to search "ashe"> Chose second result, "ASHE - Home | ASHE https://www.ashe.org The American Society for Health Care Engineering (ASHE) is the largest association dedicated to optimizing the health care built environment."> Chose the "News & Resources" drop down menu and then "Resource Library"> Filtered results by "Monographs"> Browsed list of results; saved resource for author screening. (x14)

3/8: Used google.com to search "ashe"> Chose second result, "ASHE - Home | ASHE https://www.ashe.org The American Society for Health Care Engineering (ASHE) is the largest association dedicated to optimizing the health care built environment."> Chose the "News & Resources" drop down menu and then "Resource Library"> Filtered results by "Standards/ Guidelines"> Browsed list of results; saved resource for author screening.

3/7: Used google.com to search "ashrae"> Chose first result, "Home | ashrae.org https://www.ashrae.org With more than 50,000 members from over 132 nations, ASHRAE is a diverse organization dedicated to advancing the arts and sciences of heating, ventilation, air ..."> Under "About" drop-down option, and chose "Position Documents"> From top of screen, chose "Resource Lists" option> Scrolled down to "ASHRAE Standards"> Browsed list of standards. Saved for author screening.

3/7: Used google.com to search "ashrae"> Chose first result, "Home | ashrae.org https://www.ashrae.org With more than 50,000 members from over 132 nations, ASHRAE is a diverse organization dedicated to advancing the arts and sciences of heating, ventilation, air ..."> Under "About" drop-down option, and chose "Position Documents"> From top of screen, chose "Resource Lists" option> Scrolled down to "ASHRAE Standards"> Browsed list of standards. Saved for author screening. (x4)

3/7: Browsed Library's collection of ASHRAE documents, saved for author review.

3/7: Used google.com to search "ashrae"> Chose first result, "Home | ashrae.org https://www.ashrae.org With more than 50,000 members from over 132 nations, ASHRAE is a diverse organization dedicated to advancing the arts and sciences of heating, ventilation, air ..."> Under "Technical Resources" drop-down option, and chose "ASHRAE Library"> From top of screen, chose "Resource Lists" option> Scrolled down to "ASHRAE Standards"> Browsed list of standards. Saved for author screening. (x2)

3/7: Used google.com to search "facilities guidelines institute"> Clicked "Guidelines" drop down menu on top of screen; chose "Purchase the Guidelines"> Saved for author screening. (x2)

3/7: Used google.com to search "facilities guidelines institute"> Clicked "Education" drop down menu on top of screen; chose "2018 FGI Guidelines Update Articles"> Saved for author screening. (x3)

3/7: Used google.com to search "facilities guidelines institute"> Clicked "Beyond Fundamentals" drop down menu on top of screen; chose "Beyond Fundamentals Library"> Scrolled down to resource, saved for author screening. (x2)

3/7: Reading document for another project, noticed a possibly-relevant section> Saved for author screening

3/4: Used google.com to search "energy star hospitals"> Scrolled to result, "Tools and Resources | ENERGY STAR"> Scrolled to result, saved result for author screening. (x2)

3/4: Used google.com to search "energy star hospitals"> Chose first result, "ENERGY STAR Score for Hospitals (General Medical and ..."> Saved result for author screening.

3/4: used google.com to search "Leadership in energy and environmental design"> Chose first result, "LEED rating system | U.S. Green Building Council https://www.usgbc.org › leed"> Clicked top L 3 dash menu, chose "LEED and human health" under "About"> Scrolled to bottom and expanded "Reports" option> Saved result for author screening

3/4: used google.com to search "Leadership in energy and environmental design"> Chose first result, "LEED rating system | U.S. Green Building Council https://www.usgbc.org › leed"> Clicked top L 3 dash menu, chose "LEED and human health" under "About"> Saved result for author screening

3/4: Used google.com to search "hospital design guidelines site:cdc.gov"> First result was this document; saved for author review.

3/4: From google.com, searched "fema healthcare disaster"> Scrolled down to "Planning Guides | FEMA.gov"> Scrolled to result, saved for author screening.

3/4: Used google.com to search "osha hospital maintenance"> Chose first result, "Healthcare - Overview Occupational Safety and Health ..."> Clicked for information on "Workplace Violence"> Scrolled to link; saved for author screening (x2)

3/1: Used google.com to search "OSHA hospital renovation"> While browsing results, saw description: "Healthcare workers face a number of serious safety and health hazards. ... In addition to the medical staff, large healthcare facilities employ a wide ..."> Clicked "Workplace violence" link in L nav bar.> While browsing text, noticed link for this result, saved result for author screening

3/1: Used google.com to search "OSHA hospital renovation"> While browsing results, saw description: "Healthcare workers face a number of serious safety and health hazards. ... In addition to the medical staff, large healthcare facilities employ a wide ..."> Clicked "Workplace violence" link in L nav bar, saved result for author screening. (x2)

3/1: Used google.com to search "OSHA hospital renovation"> While browsing results, saw description: "It is responsible for the management and coordination of work projects for the construction, renovation and ongoing maintenance of the infrastructure at the ..."> Clicked link, saved result for author screening. (x4)

3/1: Used google.com to search "FDA surgical suite"> In browsing results, saw link: "Information about the Use of Forced Air Thermal Regulating ..."> Clicked link, saved result for author screening.

3/1: Used google.com to search "FDA surgical suite"> In browsing results, saw text saying "air-handling apparatus for a surgical operating room" in description> Clicked link, then clicked link "For the most up-to-date version of CFR Title 21, go to the Electronic Code of Federal Regulations (eCFR)."> Saved result for author screening.

Health Facilities Management, 2014 to current, handsearching (x59)

AAH Academy Journal, 2016 to present, handsearching (x14)

LEUKOS, 2015 to present, handsearching (x10)

HERD: Health Environments Research & Design, 2014 to present, handsearching (x27)

Journal of Health Design, 2016 to present, handsearching (x3)

RESULTS

Studies that offer insights that can inform perioperative nursing practice in the area of facility design and maintenance of the surgical suite were included in this review. Studies that appeared to meet the inclusion criteria were excluded if they were of lower quality, provided no guidance, were duplicates of already-included studies, full text was not available in English, the results were not applicable or generalizable to the perioperative practice setting, were the wrong setting, or wrong population. A synthesis of the study results informed construction of practice recommendations and this synthesis is described briefly in the corresponding rationales that follow each practice recommendation. Additional information about each included study is found in the evidence table that corresponds to the published guideline.

REGISTRATION

PROSPERO Registration: CRD42021274097