Presentation for the Nebraska Society of Healthcare Engineers October 17 - 2019

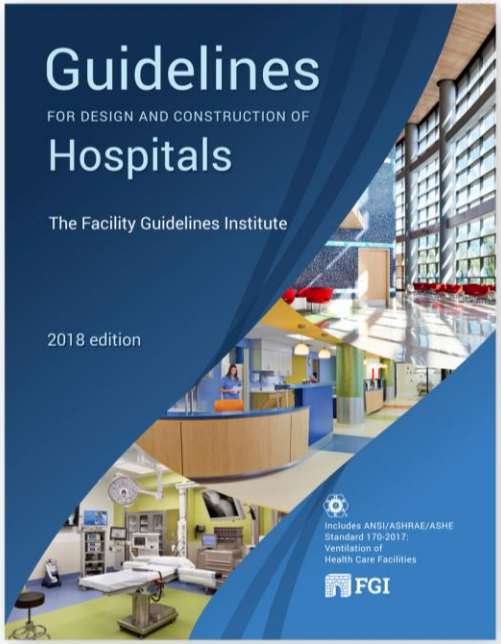
Today's objectives are…

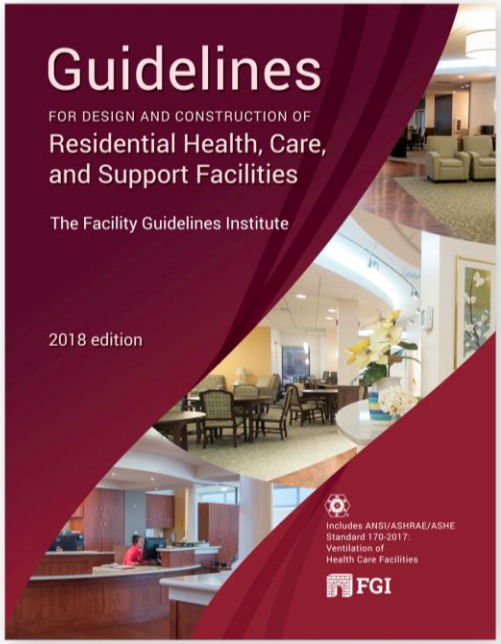
1. Process and People that made FGI Update Possible with NE Legislature

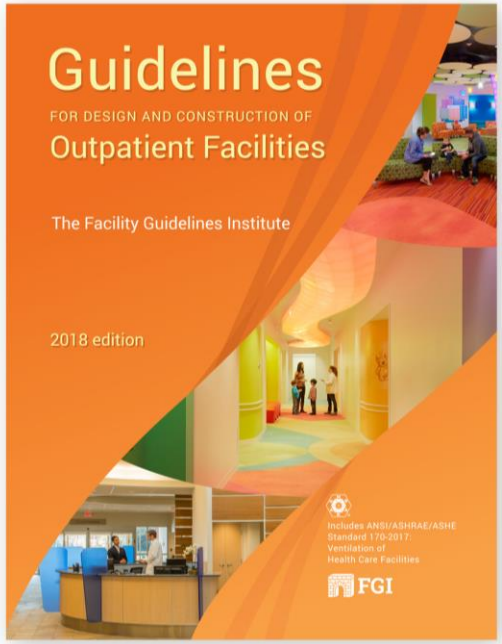
2. Provide a basic understanding of the *Guidelines* process

3. Briefing on the 2018 Guidelines, what has changed & cost.

FGI and the 2018 Hospital, Outpatient and Residential Guidelines







FACILITY GUIDELINES INSTITUTE

The keystone to health care planning, design, and construction

And your presenter is…

Patrick Leahy, AIA, EDAC

Architect & Healthcare Planner
CMBA Architects

FGI Healthcare Guidelines Review Committee, 2015-2018 Cycle, and 2019-2022 Cycle

22 years of Health Care Experience

Objective 1

- Adoption Date
- People that made FGI Update Possible
- Process of and State Legislature Adoption

FGI Guidelines for Healthcare Design and Construction

August 29, 2018 was the effective date of the 2001 FGI Guidelines being replaced by the 2018 Guidelines in Nebraska, per LB409

Process summary:

Sponsors, compromise, Hearing, 3 Votes, signature of governor.

FGI Updated from 2001 to 2018
The people who made this happen:

- NE **Senator Rick Kolowski**, sponsor introduced bill
- NE **Senator Justin Wayne**, Chair of Urban Affairs Committee was a star for 6 building code updates
- **Margaret Buck**, Legislative Aid Rick Kolowski's office was instrumental in learning about code, informing others and shepparding the process with AIA, NSHE and NHA
- **Tom Green**, former Legislative Aid Rick Kolowski's office started the effort.
- **Trevor Fitzgerald**, Legal Counsel Urban Affairs Committee, Loves code and helped describe for us the process of bill adoption
- **Sara Kay** AIA NE Exec DIR. Put us in touch with Tom Green and Margaret Buck, political insights were invaluable.
- **Patrick Leahy**, AIA Architect & Healthcare Planner for CMBA Architects and member of Revision Committee for 2018 FGI & 2022 FGI Guidelines for Design and Construction of Healthcare Facilities.

FGI Updated from 2001 to 2018
The people who made this happen:

- **David Slattery** Director of Advocacy - Asked David Kozak representing NSHE to represent NHA also.
- **David Kozak**, Director of Engineering and Maintenance at St. Francis Medical Center, Grand Island NE, and 2019 President of Nebraska Society of Healthcare Engineers (NSHE).
- **Don Sheets**, Director of Facilities Management at Bryan Health, and Treasurer NSHE.
- **Mark Sears**, Safety Manager, Faith Regional, Past President of NSHE (2018)
- **Skanda Skandaverl**, Division Director, CommonSpirit Health, ASHE Region 8 Board Member, former President of NSHE
- **Rod Chambers**, Director of Facility Services, Saint Elizabeth Regional Medical Center, former President NSHE
- **Doug Erickson**, President of the Facilities Guidelines Institute

FGI Updated from 2001 to 2018
The people who made this happen:

- **Dave Johnson**, AIA testified on 5 other code bills, legislative bills and attended other meetings as well.
- **Ashlee Fish**, Advocacy Director, The Nebraska Health Care Association, (NEHCA), & negotiator of compromise
- **Heath Boddy**, President and CEO, The Nebraska Health Care Association, (NEHCA)

FGI Updated from 2001 to 2018 Organizations involved:

- **NSHE**, Nebraska Society of Healthcare Engineers, - supported
- **AIA** American Institute of Architects - supported
- **NHA**, Nebraska Hospital Association - supported
- **NEHCA**, Nebraska Health Care Association – supported
- **DHHS** - neutral
- **AGC**, Association of General Contractors - Jean D. Petsch Exec Director – neutral
- **Nebraska Legislature – process worked.**

Objective 2

- What us FGI
- basic understanding of the *Guidelines* process

Who is FGI?

Consumer Reports

We view ourselves as the *Consumer Reports* of the health care physical environment.

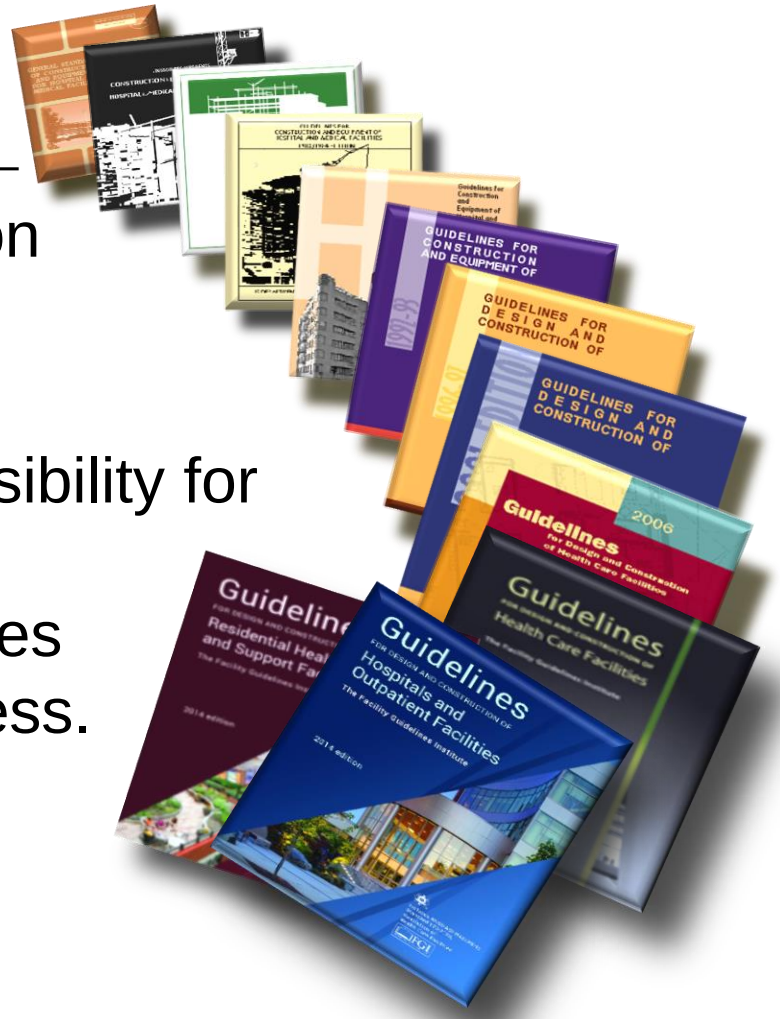
We have a similar view and mission…

Consumer Reports is an **expert, independent, nonprofit** organization whose mission is to work for a fair, just marketplace for all consumers and to empower consumers to protect themselves.

Patient and staff safety is a guiding principal of the FGI *Guidelines*!

Guidelines History

- 1947: First Guidelines Published – General Standards of Construction for Hospitals
- 1985: AIA-AAH assumes responsibility for managing the revision process & publishing the document; organizes multidisciplinary consensus process.
- 2001, 2006, 2010, 2014 and 2018 Editions developed by FGI



National Committee of Experts

FGI Participating Organizations

- ACHA
- AIA-AAH
- ASHE
- ACHE
- AHRQ
- AORN
- ASHRAE
- ACS
- CHD
- NIH
- CDC
- TJC
- CMS

2018 HGRC
100+ Multidisciplinary Committee

20% - Architects
18% - Medical professionals
16% - State AHJs
13% - Engineers
10% - HC administrators/HC org. reps. including Directors of PDC for hospitals
8% - Federal AHJs (IHS, CMS, HUD, VA)
7% - Infection control experts + NIH/CDC
4% - Construction professionals
4% - Interior designers

FGI Process Overview

Consensus-based process for *Guidelines* development using:

- Collective multidisciplinary experience
- Professional stakeholder consensus, including many AHJs (*no manufacturers vote on proposals*)
- Public review process
- Clinical and evidence-based research
- Continual improvement process

Every new edition of the FGI *Guidelines* is different and an “evolution” from previous editions.

Driving Principles

- Minimum/Baseline/Fundamental
- Where possible – advised by evidence
- Addresses national patient safety goals
- Written to be adopted as a standard
- No duplication of other standards
- Manufacturers cannot be members of the Health Guidelines Revision Committee
- Evaluated by a Benefit/Cost Committee

Objective 3

2018 Guidelines, what has changed & cost.

Defining differences of the *Guidelines*!

Functional Program

- Owner driven
- Critical thinking and outcome driven
- Provision of executive summary
- Used by health care organization; updated accordingly
- Informs the physical space program
- Used by AHJ to evaluate design documents

Acoustic Requirements

“Unnecessary noise is the cruelest absence of care”
Florence Nightingale

The Six Key Topics

1. Site Exterior Noise
2. Acoustical Finishes and Details
3. Room Noise Levels
4. Sound Isolation & Speech Privacy
5. Electro-acoustics—**Alarms, Sound Masking**
6. Vibration

Elements of the SRA

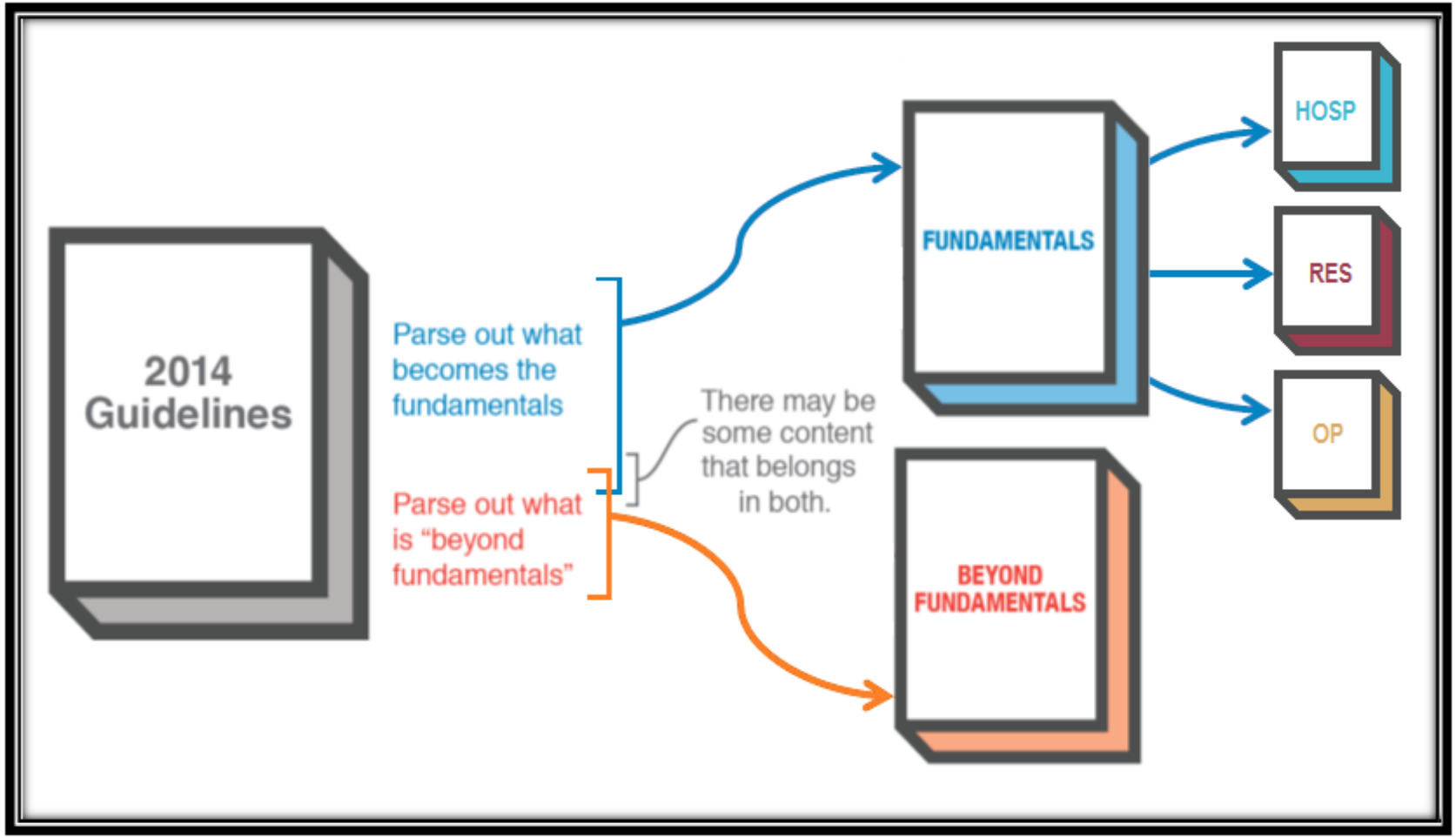
- Falls (including noise causing poor sleep)
- Medication errors (noise and distraction)
- Behavioral health (noise reduction impact)
- Hospital-acquired infections
- Security
- Patient handling and movement
- Patient immobility (hospital only)

2018 *Guidelines*

- Split the standard into two parts:
  - Fundamental requirements – Minimum/baseline standards that can be adopted as code by AHJs.
  - Beyond Fundamentals – Emerging and/or best practices that exceed basic requirements

- Focus on primary care/outpatient facilities as the trend in health care delivery is continuing to move in that direction

New Structure



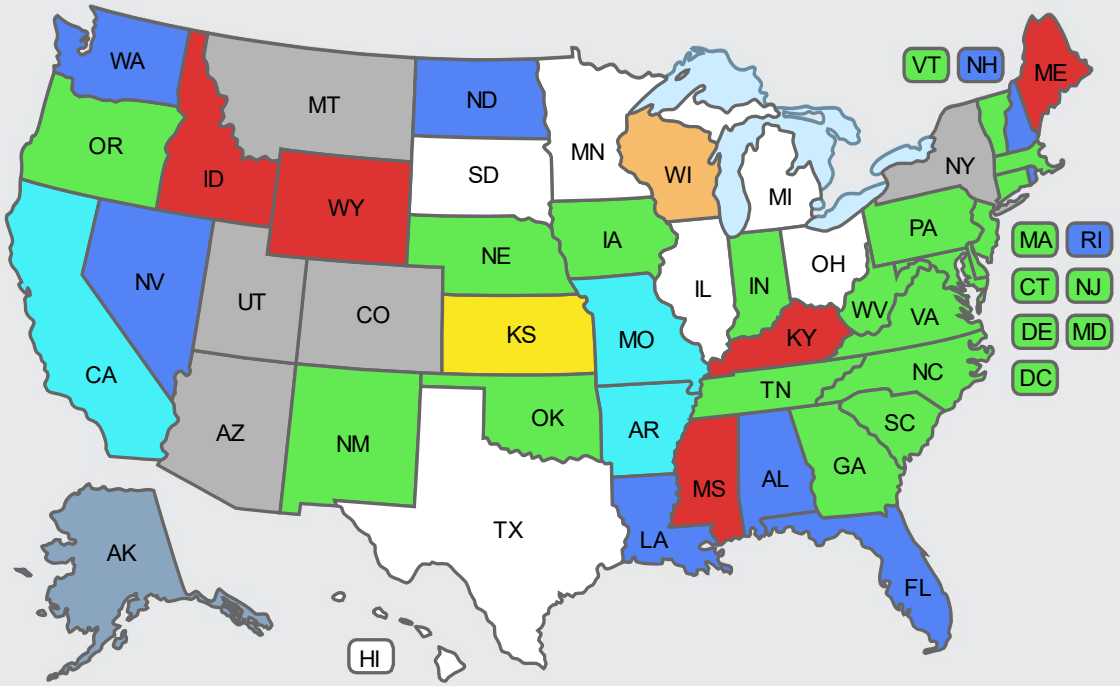
2010 - 2014 Edition First Cost Impact Review

- HGRC Cost/Benefit Committee in conjunction with ASHE
- Review of Hospital/Outpatient document to identify the first cost impact of implementing the 2014 edition (approx. 2% increase in first cost with no credits for cost reductions)

2014 - 2018 Cost Estimate Report

- Hospital
  - General hospital - .1 percent increase
  - Critical access hospital - .7 percent increase
- Freestanding Emergency Facility
  - 3.6 percent increase
- Outpatient Facility
  - Multi-specialty care facility - .4 percent increase
  - Outpatient surgery facility – 3.3 percent decrease

What States use the *Guidelines* and what edition have they adopted?



Other Regulatory Applications of the FGI *Guidelines*

The Joint Commission. EC.02.06.05 states the Joint Commission expects organizations to assess building design and construction requirements based on local, state, and federal regulations and codes. Typically, the state health department licensing entity is the authority having jurisdiction (AHJ), so health care organizations should check that AHJ's licensing rules to determine the criteria for a facility. When state regulations are silent on a particular design criteria, the Joint Commission recognizes the 2014 Facility

KEY

2018	
2014	
2010	
2006	
2001	
1996–97	
Equivalency*	
HVAC only	

**Guidelines* may be applied as an equivalency to state rules.

State Adoption of 2018 *Guidelines*

Early Adopters of 2018

- Georgia
- North Carolina
- West Virginia
- Pennsylvania
- New Jersey
- New Mexico
- Connecticut
- Delaware

Adopted 2018 in 2019

- Iowa
- Indiana
- Colorado
- Michigan
- Florida
- Oregon
- Nebraska
- Nevada
- Washington
- District of Columbia
- Tennessee
- New York
- Massachusetts

21 total

FGI website: a way to keep current with FGI and *Guidelines* activities

Facility Guidelines Institute

https://www.fgiguidelines.org

FGI Resources

Errata

Errata for the 2018 *Guidelines for Design and Construction of Hospitals*

Content Corrections

PAGE	SECTION	ERROR	CORRECTED TEXT
53	Table 1.2-6	[3] In cases where greater speech privacy is required between patient ~~care~~ rooms when both room doors.... [4] This is the performance required...	[3] This is the performance required [4] In cases where greater speech privacy is required between patient rooms when both patient patient room doors...
67	2.1-1	**2.1-1 General** ...	**2.1-1 General** ... **2.1-1.1.4** Outpatient projects located in hospitals shall meet the requirements of the FGI *Guidelines for Design and Construction of Outpatient Facilities.*
132	Table 2.1-2 Nurse Call Devices	**Procedure room/Class 2 imaging room** *Required stations:* ~~Bath,~~ Staff assistance *Optional station:* ~~Emergency call~~ **Operating room/Class 3 imaging room** *Required stations:* ~~Bath,~~ Staff assistance **Electroconvulsive therapy treatment room/pre-procedure and recovery patient care stations** *Required stations:* ~~Bath,~~ Staff assistance	**Procedure room/Class 2 imaging room** *Required stations:* Staff assistance, Emergency call *Optional station:* Nurse master **Operating room/Class 3 imaging room** *Required stations:* Staff assistance, Emergency call **Electroconvulsive therapy treatment room/pre-procedure and recovery patient care stations** *Required stations:* Staff assistance, Emergency call
133	Table 2.1-3 Station Outlets	**Class 1 imaging room** 1 oxygen, 1 vacuum~~, 1 medical air~~ **Operating room/Class 3 imaging room** 2 oxygen, 5 vacuum, 1 medical air, 1 WAGD~~, 1 instrument air~~	**Class 1 imaging room** 1 oxygen, 1 vacuum **Operating room/Class 3 imaging room** 2 oxygen, 5 vacuum, 1 medical air, 1 WAGD
152	2.2-2.8.2	**2.2-2.8.2 NICU Rooms and Areas** ...	**2.2-2.8.2 NICU Rooms and Areas** ... **2.2-2.8.2.6 Reserved** **2.2-2.8.2.7 Nurse call system.** A nurse call system shall be provided in accordance with Section 2.1-8.5.1 (Call Systems).

continued

FGI Bulletin

FGI Bulletin #7

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May 16, 2018 | Category **FGI BULLETIN**

Errata Sheets Posted for 2018 Hospital and Outpatient *Guidelines*

The errata sheets prepared for all *Guidelines* editions are crucial to users of the documents. An errata sheet presents items that are errors in the published books, whether editorial oversights or discrepancies that were revealed after publication. The corrections shown in the errata sheets are considered part of the official documents and should be applied as part of the standards by all users, including authorities having jurisdiction.

Dated errata sheets are posted on the FGI website, and we recommend checking back periodically to make sure you have the most current version. We also will continue to let subscribers to the *FGI Bulletin* know when new errata sheets are posted. For the 2018 digital documents available on MADCAD, the goal is to identify corrections in the online version of the documents.

We appreciate hearing from *Guidelines* users who have questions about the content they use. This is often how errors are found. Write to us at info@fgiguidelines.org.

State Adoption Focus: Colorado

The State of Colorado recently adopted Chapter 4.1, Specific Requirements for Assisted Living Facilities, in the 2018 *Guidelines for Design and Construction of Residential Health, Care, and Support Facilities*. Adoption of the assisted living facility standards includes applicable cross-references found in the chapter. Exceptions to the *Guidelines* requirements are parking and elevator standards, which defer to local regulations.

For assisted living residences applying for a new license, application of

FGI Interpretations

July 11, 2018

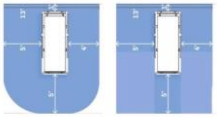
Richard Horeis, AIA
HDR, Inc.
Omaha, NE

Dear Mr. Horeis:

This letter is provided in response to your request for an interpretation of Section 2.2-2.6.2.2 (2) in the 2014 FGI Hospital/Outpatient *Guidelines*.

Question: In Section 2.2-2.6.2.2 (2), regarding clearances for critical care patient care stations, does the 5-foot clearance requirement at the foot of t only require clearance for the width of the bed itself, or is the clearance to extended to include transfer side width (5 feet) and non-transfer side width feet), such that the width of the clearance at the foot of the bed totals 14 fe

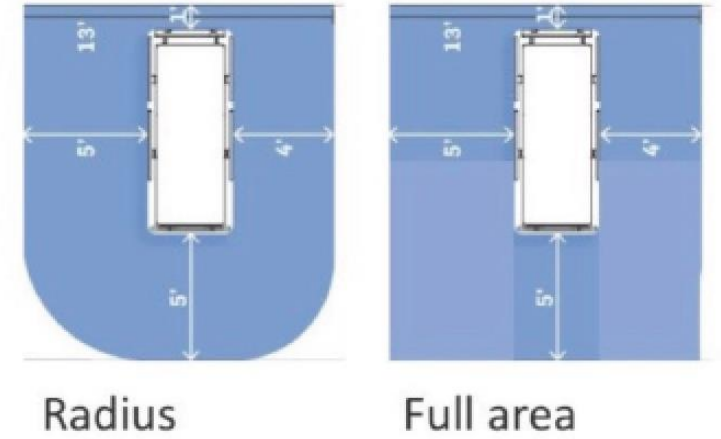
Response: The clearance requirement at the foot of the bed is intended to create sufficient space for care of the patient. Space is needed around the corners of the bed to allow access and movement for equipment, staff, and family members. Staff must be able to easily move around the bed. As we space is needed for IV and pain management systems, warmers, etc., and f use of patient lifts and gurneys. To accommodate these needs, the full dimension at the foot needs to be as wide as the clearances on the sides of bed; however, the squared-off space this creates could be rounded off to accommodate structural or other non-movable encroachments. This respo applies to all places in the *Guidelines* where clearance requirements are provided. The diagrams below may help clarify this response.



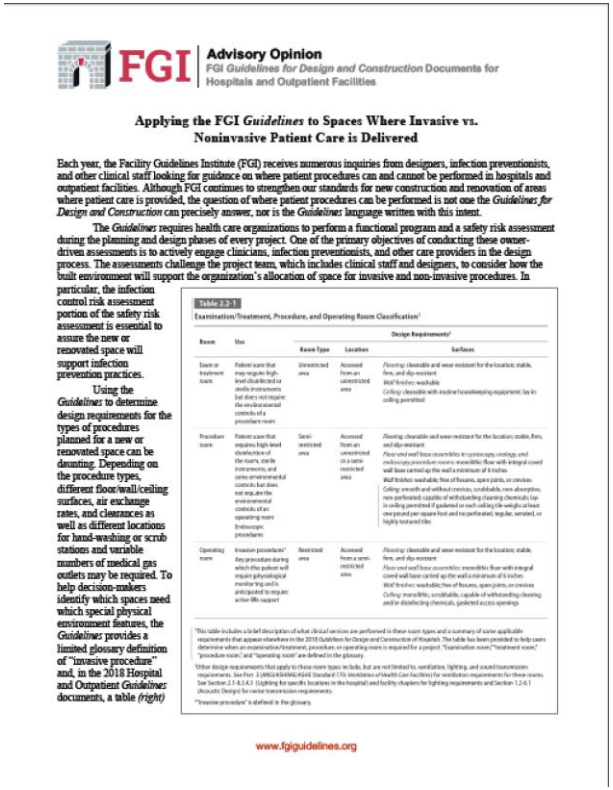
This correspondence is nether intended, nor should it be relied upon, to provide professional consultation or services.

Sincerely,

Douglas S. Erickson, FASHE, CHFM, HFDP, CHC
Chair, HGRC Interpretations Committee
314-800-7896
doug@fgiguidelines.org



FGI Policy Statement Invasive vs Noninvasive



FGI | **Advisory Opinion**
FGI Guidelines for Design and Construction Documents for Hospitals and Outpatient Facilities

Applying the FGI *Guidelines* to Spaces Where Invasive vs. Noninvasive Patient Care is Delivered

Each year, the Facility Guidelines Institute (FGI) receives numerous inquiries from designers, infection preventionists, and other clinical staff looking for guidance on where patient procedures can and cannot be performed in hospitals and outpatient facilities. Although FGI continues to strengthen our standards for new construction and renovation of areas where patient care is provided, the question of where patient procedures can be performed is not one the *Guidelines for Design and Construction* can precisely answer, nor is the *Guidelines* language written with this intent.

The *Guidelines* requires health care organizations to perform a functional program and a safety risk assessment during the planning and design phases of every project. One of the primary objectives of conducting these owner-driven assessments is to actively engage clinicians, infection preventionists, and other care providers in the design process. The assessments challenge the project team, which includes clinical staff and designers, to consider how the built environment will support the organization's allocation of space for invasive and non-invasive procedures. In particular, the infection control risk assessment portion of the safety risk assessment is essential to assure the new or renovated space will support infection prevention practices.

Using the *Guidelines* to determine design requirements for the types of procedures planned for a new or renovated space can be daunting. Depending on the procedure types, different floor/wall/ceiling surfaces, air exchange rates, and clearances as well as different locations for hand-washing or scrub stations and variable numbers of medical gas outlets may be required. To help decision-makers identify which spaces need which special physical environment features, the *Guidelines* provides a limited glossary definition of "invasive procedure" and, in the 2018 Hospital and Outpatient *Guidelines* documents, a table *(right)* that lists some basic procedures performed in examination/treatment, procedure, and operating rooms (this list is *not* exhaustive).

Table 2.2-1
Examination/Treatment, Procedure, and Operating Room Classification[1]

Room	Use	Design Requirements[2]		
		Room Type	Location	Surfaces
Exam or treatment room	Patient room that may require high-level disinfected or sterile instruments but does not require the environmental controls of a procedure room	Unrestricted area	Accessed from an unrestricted area	*Flooring:* cleanable and wear-resistant for the location; stable, firm, and slip-resistant *Wall finishes:* washable *Ceiling:* cleanable with routine housekeeping equipment; lay-in ceiling permitted
Procedure room	Patient room that requires high-level disinfection of the room's, sterile instruments, and some environmental controls but does not require the environmental controls of an operating room Endoscopic procedures	Semi-restricted area	Accessed from an unrestricted or a semi-restricted area	*Flooring:* cleanable and wear-resistant for the location; stable, firm, and slip-resistant *Floor and wall base assemblies in cystoscopy, urology, and endoscopy procedure rooms:* monolithic floor with integral coved wall base carried up the wall a minimum of 6 inches *Wall finishes:* washable; free of fissures, open joints, or crevices *Ceiling:* smooth and without crevices, scrubbable, non-absorptive, non-perforated; capable of withstanding cleaning chemicals; lay-in ceiling permitted if gasketed or each ceiling tile weighs at least one pound per square foot and no perforated, regular, serrated, or highly textured tiles
Operating room	Invasive procedures[3] Any procedure during which the patient will require physiological monitoring and is anticipated to require active life support	Restricted area	Accessed from a semi-restricted area	*Flooring:* cleanable and wear-resistant for the location; stable, firm, and slip-resistant *Floor and wall base assemblies:* monolithic floor with integral coved wall base carried up the wall a minimum of 6 inches *Wall finishes:* washable; free of fissures, open joints, or crevices *Ceiling:* monolithic, scrubbable, capable of withstanding cleaning and/or disinfecting chemicals, gasketed access openings

[1]This table includes a brief description of what clinical services are performed in these room types and a summary of some applicable requirements that appear elsewhere in the 2018 Guidelines for Design and Construction of Hospitals. The table has been provided to help users determine when an examination/treatment, procedure, or operating room is required for a project. "Examination room," "treatment room," "procedure room," and "operating room" are defined in the glossary.

[2]Other design requirements that apply to these room types include, but are not limited to, ventilation, lighting, and sound transmission requirements. See Part 3 (ANSI/ASHRAE/ASHE Standard 170: Ventilation of Health Care Facilities) for ventilation requirements for these rooms. See Section 2.1-8.3.4.3 (Lighting for specific locations in the hospital) and facility chapters for lighting requirements and Section 1.2-6.1 (Acoustic Design) for noise transmission requirements.

[3]"Invasive procedure" is defined in the glossary.

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On one end of the spectrum is the operating room (OR) environment, which is classified as a "restricted area" and needs the maximum environmental control requirements. At the other end is the examination room or emergency department treatment room, where diagnoses and simple treatments are provided. Between these two room types is the procedure room, which is the space type most likely to present a conundrum to design teams and health care organization leaders—how should these rooms be classified and designed? The tricky part is determining when an OR may be required for procedures that otherwise could be safely performed in a procedure room. The 2018 table states that any procedure during which the patient will require physiological monitoring and is anticipated to require active life support must be done in an OR. "Active life support" was intended to mean that a machine is providing basic respiratory or circulatory functions (the patient is unable to either breathe and/or circulate blood on their own or unable to do so sufficiently to preclude physiologic damage). Respiratory assistance with general anesthesia or mechanical ventilation are examples of what the Health Guidelines Revision Committee intended by "active life support."

In the 2018 *Guidelines for Design and Construction of Hospitals* and *Guidelines for Design and Construction of Outpatient Facilities*, a new imaging room classification system was introduced to help designers and clinicians determine what room types are needed for a new imaging facility. The imaging classes correspond with the exam/treatment, procedure, and operating rooms: Class 1 imaging room for diagnostic procedures, Class 2 imaging room for minimally invasive procedures, and Class 3 imaging rooms, which are ORs with mobile or built-in imaging equipment (the latter is defined as a hybrid OR), for invasive procedures (i.e., surgery). Like the conundrum of the procedure room described above, the distinction between when a Class 2 and a Class 3 imaging room is needed is the most difficult to determine. The 2018 edition also includes a table *(left)* to help users understand the differences between these imaging room types.

Table 2.2-2
Classification of Room Types for Imaging Services[1]

Room	Use	Design Requirements[2]		
		Room Type	Location	Surfaces
Class 1 imaging room	Diagnostic radiography, fluoroscopy, roentgenography, computed tomography (CT), ultrasound, magnetic resonance imaging (MRI), and other imaging modalities Services that use natural orifice entry and do not pierce or penetrate natural protective membranes	Unrestricted area	Accessed from an unrestricted area	*Flooring:* cleanable and wear-resistant for the location; stable, firm, and slip-resistant *Wall finishes:* washable *Ceiling:* cleanable with routine housekeeping equipment; lay-in ceiling permitted
Class 2 imaging room	Diagnostic and therapeutic procedures such as coronary, neurological, or peripheral angiography Electrophysiology procedures	Semi-restricted area	Accessed from an unrestricted or a semi-restricted area	*Flooring:* cleanable and wear-resistant for the location; stable, firm, and slip-resistant *Floor and wall base assemblies:* monolithic floor with integral coved wall base carried up the wall a minimum of 6 inches *Wall finishes:* washable; free of fissures, open joints, or crevices *Ceiling:* smooth and without crevices, scrubbable, non-absorptive, non-perforated; capable of withstanding cleaning chemicals; lay-in ceiling permitted if gasketed or each ceiling tile weighs at least one pound per square foot and no perforated, regular, serrated, or highly textured tiles
Class 3 imaging room	Invasive procedures[3] Any Class 2 procedure during which the patient will require physiological monitoring and is anticipated to require active life support	Restricted area	Accessed from a semi-restricted area	*Flooring:* cleanable and wear-resistant for the location; stable, firm, and slip-resistant *Floor and wall base assemblies:* monolithic floor with integral coved wall base carried up the wall a minimum of 6 inches *Wall finishes:* washable; free of fissures, open joints, or crevices *Ceiling:* monolithic, scrubbable, capable of withstanding cleaning and/or disinfecting chemicals, gasketed access openings

[1]This table includes a brief description of the imaging services performed in these room types and a summary of some applicable requirements that appear elsewhere in the 2018 Guidelines for Design and Construction of Hospitals. The table has been provided to help users determine when a Class 1, Class 2, or Class 3 imaging room is required for a project.

[2]Other design requirements that apply to these imaging room types include, but are not limited to, ventilation, lighting, and sound transmission requirements. See Part 3 (ANSI/ASHRAE/ASHE Standard 170: Ventilation of Health Care Facilities) for ventilation requirements for these rooms. See Section 2.1-8.3.4.3 (Lighting for specific locations in the hospital) and facility chapters for lighting requirements and Section 1.2-6.1 (Acoustic Design) for noise transmission requirements.

[3]"Invasive procedure" is defined in the glossary.

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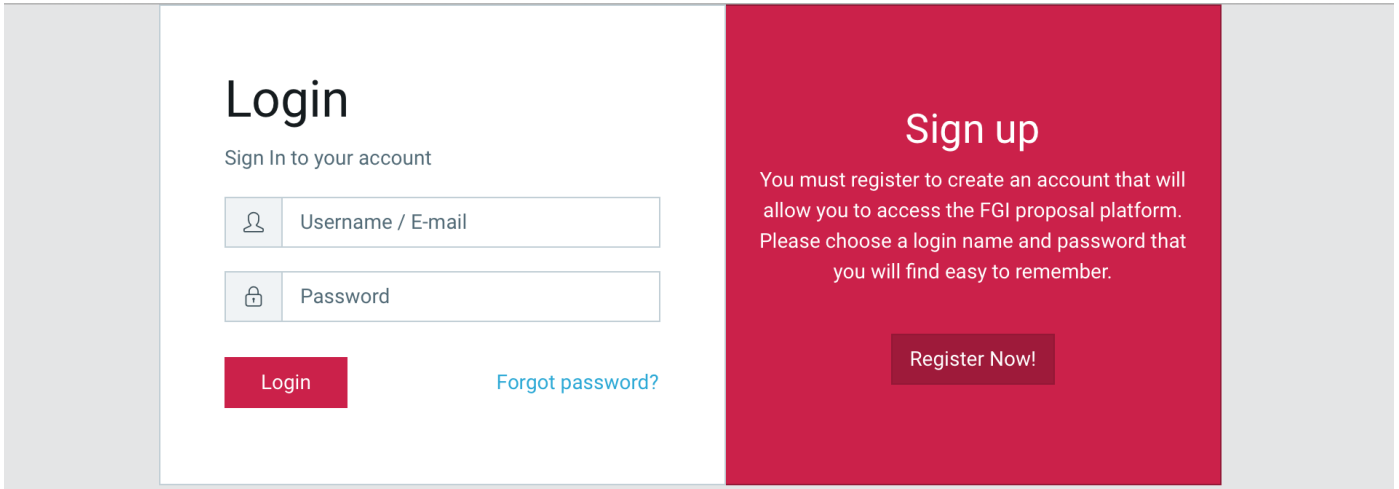
While guidance is provided in the *Guidelines* for newly

Be a part of the *Guidelines* success – get involved!

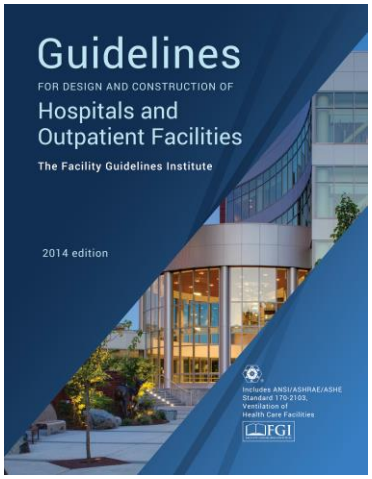


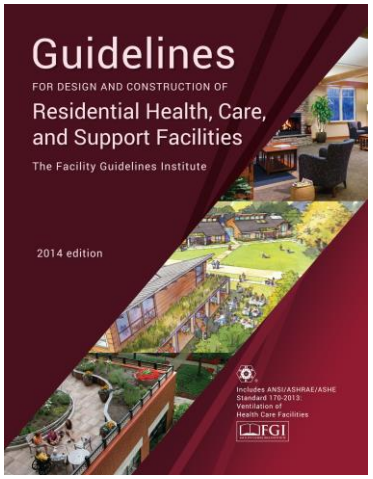
An Invitation to the 2022 *Guidelines* Revision Cycle Proposal Period

(The proposal period will close on July 1, 2019, 4:00 am)

BACKGROUND: The FGI *Guidelines* documents provide fundamental, or baseline, requirements for the design and construction of included facility types, recommending minimum program, space, and equipment needs for clinical and support areas of hospitals, numerous outpatient facility types, and rehabilitation facilities as well as nursing homes, assisted living facilities, hospice facilities, independent living settings, adult day care facilities, and wellness centers. The documents also address minimum engineering design criteria for plumbing, electrical, and heating, ventilation, and air-conditioning (HVAC) systems. The Joint Commission, many federal agencies, and state authorities having jurisdiction use the *Guidelines* either as a code or a reference standard when reviewing, approving, and financing facility project plans; surveying, licensing, certifying, or accrediting newly constructed facilities; or developing their own codes.

2014 *Guidelines*





An overview of major topics that were addressed in the 2014 *Guidelines*.

2014 Hospital and Outpatient Guidelines Major Topics Addressed

- **New chapter** on **children's hospitals**
- **New chapter** on **critical access hospitals**
- New language on **family zone** support features
- Clarification of critical care patient toilet or human waste disposal room
- Bariatric unit fixed mechanical lifts in all bariatric rooms
- Broadened requirements for observation units
- Added appendix language on hybrid operating rooms
- Additional guidance on locating **hand-washing stations** serving multiple patient care stations
- Clarification of **exam table placement** in exam rooms
- **Eliminated unsealed (open) water features**

2014 Hospital and Outpatient Guidelines Major Topics Addressed

- **Removed requirement for sub-sterile** rooms in the OR suite
- Added language on satellite sterile processing rooms
- Cleared up the location of scrub stations in surgical suites
- Increased the **minimum PACU stations to 1.5 per OR**
- **Removed requirement for staff changing and lounge to open directly into the surgical suite**
- New requirements for electroconvulsive therapy (ECT) rooms
- **Removed corridor widths** and refer to **NFPA** and **Building Codes**
- Added **medication safety zones**
- New chapter on dental facilities

2014 Residential *Guidelines*
Major Topics Being Addressed

- Completely **rewritten** separate **Residential *Guidelines* introduced** in **2014**
- **Person centered care** highlighted throughout
- Introduced new nursing home concepts on resident sleeping rooms and community areas
- New concepts for hospice care facilities
- New concepts on assisted living facilities (small, medium, and large)

2018 *Guidelines*

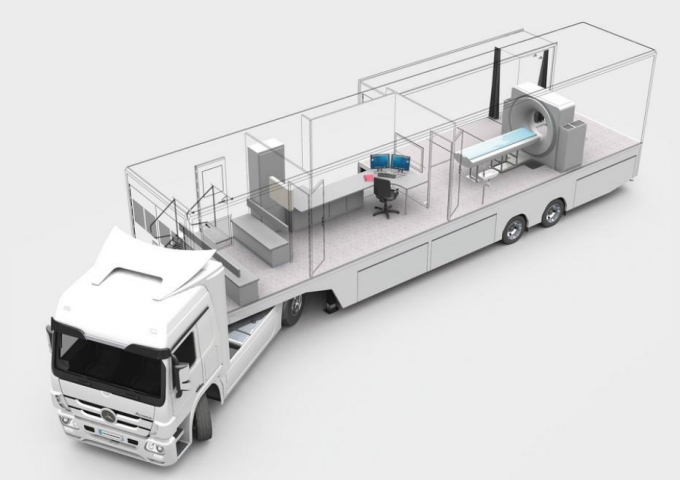
An overview of major topics that were addressed and changes in the 2018 *Guidelines*.

2018 Hospital and Outpatient Guidelines Major Topics Addressed

- Design of **Telemedicine** Services
- **Emergency preparedness**
- Design/clearances to accommodate **patients of size**
- **Pre- and post-procedure** patient care areas – flexibility to combine areas and **correct ratios**
- **Procedure and operating room sizes** that reflect space requirements for anesthesia team and equipment
- **Classification system** for **imaging rooms**

2018 Hospital and Outpatient Guidelines Major Topics Addressed

- Guidance for **when exam/treatment, procedure, and operating rooms** are needed
  - Clearances and spatial relationships
  - Locations for procedure types
- **Mobile/transportable** medical unit revisions



2018 Hospital Guidelines Other Notable Changes

- **Single-bed CCU rooms**
- Sexual assault forensic exam room
- Geriatric treatment room in ED
- **Technology distribution room size**

2018 Residential *Guidelines*
Major Topics Being Addressed

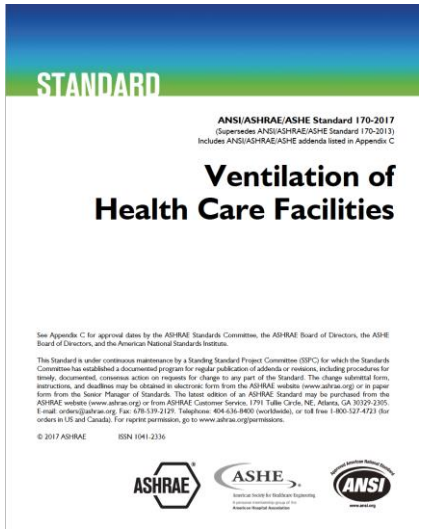
- Updated **acoustic and lighting requirements**
- Grab bar configurations
- New chapter on facilities for individuals with **intellectual and/or developmental disabilities**
- New chapter on long-term residential substance abuse treatment facilities

Ventilation Standards
They are a mess…here are the organizations with something to say about compliance.

ASHRAE 170 and the Outpatient Guidelines

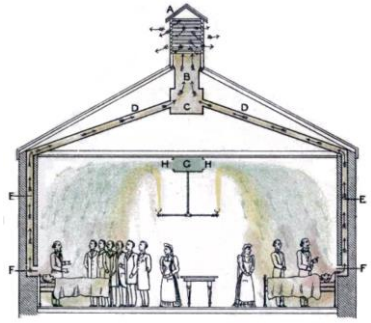
Hospital and Outpatient ventilation requirements

This section is a reprint of the 2017 ASHRAE Standard 170. FGI and ASHRAE have a partnership to work on the content together and to publish Standard 170 as a part of the *Guidelines*.



ASHRAE 170 and the Outpatient Guidelines

- Ambulatory surgery and and endoscopy facilities shall comply with all of ASHRAE 170
- The following facility types only have to meet ventilation requirements for the spaces listed in ASHRAE 170, other spaces not listed do not have to comply with ASHRAE 170:
  - Imaging facilities with Class 2 and 3 imaging rooms
  - Infusion facilities
  - Dialysis facilities



ASHRAE 170 and the Outpatient Guidelines

- The following facility types do not have to comply with ASHRAE 170 but should follow local mechanical codes:
  - General and specialty medical services
  - Urgent care
  - **Imaging facilities with Class 1 imaging rooms**
  - Outpatient psychiatric facilities
  - Outpatient rehabilitation facilities
  - Dental facilities
  - Birth centers

ASHRAE 170

- Initial committee meetings in 2002
- First standard issued in 2008
- Updated through a continuous maintenance process
- New edition published every 4 years
- FGI and ASHRAE try to keep in sync with each other
- Included in the *Hospital and Outpatient Guidelines*

Continuous Maintenance Process

Under continuous maintenance procedures anyone may propose changes at any time. Each change will be considered by the appropriate Standing Standard Project Committee (SSPC) or Standing Guideline Project Committee (SGPC), according to a definite schedule, shown in Clause 2. The project committees may also propose changes

ASHRAE 170 – (2008 – 2013)

- Patient room total air changes per hour reduced from 6 to 4
- Endoscopy procedure room pressure relationship changed to no requirement
- Added language on fully ducted return or exhaust air systems
  - Any location where pressure relationship must be maintained
  - Recovery rooms, critical and intensive care areas, intermediate care areas, burn units
  - Patient care areas of inpatient facilities
- OR air change rate setback allowed
- Switchable pressure systems are not permitted

ASHRAE 170 – (2013 – 2017)

- Exam room air changes per hour – reducing from 6 to 4
- Clarification of outpatient occupancy requirements
- OR classification
- Clarification of “recirculating room HVAC units”
- OR air distribution – primary diffuser array requirements
- Residential health care requirements
- Coordination of central sterile ventilation and OR humidity requirements with AAMI

Now onto our old “friend”…

CMS Regulation for Ventilation

§482.41(c)(4) - There must be proper ventilation, light, and temperature controls in pharmaceutical, food preparation, and other appropriate areas.

- Interpretive Guidelines §482.41(c)(4)

> Temperature, humidity and airflow in the operating rooms must be maintained within acceptable standards to inhibit bacterial growth and prevent infection, and promote patient comfort. Excessive humidity in the operating room is conducive to bacterial growth and compromises the integrity of wrapped sterile instruments and supplies. Each operating room should have separate temperature control. Acceptable standards such as from the Association of Operating Room Nurses (AORN) or the American Institute of Architects (AIA) should be incorporated into hospital policy.

CMS Regulation for Ventilation

§482.41(c)(4) - There must be proper ventilation, light, and temperature controls in pharmaceutical, food preparation, and other appropriate areas.

Survey Procedures §482.41(c)(4)

- Verify that the hospital is in compliance with ventilation requirements for patients with contagious airborne diseases, such as tuberculosis, patients receiving treatments with hazardous chemical, surgical areas, and other areas where hazardous materials are stored.
- Verify that each operating room has temperature and humidity control mechanisms.
- Review temperature and humidity tracking log(s) to ensure that appropriate temperature and humidity levels are maintained.

All bad roads lead to CMS…

The Main Issue: If you design to current Standard 170 requirements, CMS may require you to comply with the 2008 edition, without amendments, anyway. This is a **potential problem when requirements of the 2008 edition have been relaxed or reduced by amendments to either the 2008 or 2013 edition**. This is also a potential issue with states that have not adopted the current edition or addenda.

CMS Application of ASHRAE 170

Addendum a – 2008

- CMS could require 70°F - 75°F temperature range vs. 72°F to 78°F
- While the addition of the word “patient” in front of “corridor” in Table 7.1 was intended to clarify that non-patient corridors do not need to meet these requirements, CMS could potentially apply these requirements to all corridors.

Addendum b – 2008

- CMS could preclude the use of recirculating room HVAC units in laboratories (no chilled beams)
- CMS could require positive pressure in endoscopy, ICU and Burn Unit rooms vs. no requirement
- CMS could require 15 ACH of Total air vs. 6 in an endoscopy procedure room

CMS Application of ASHRAE 170

Addendum w – 2008

Gastrointestinal Endoscopy Procedure Room

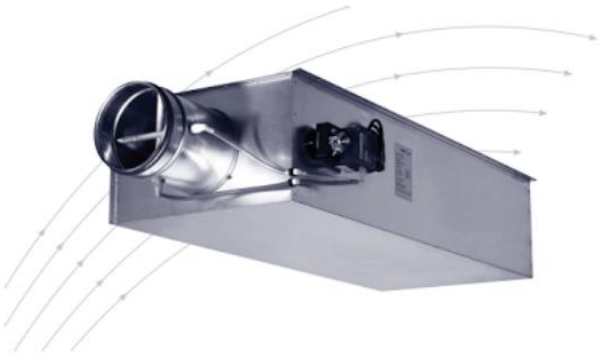
- Reduces minimum Relative Humidity to 20%
- Requires space to be treated as Bronchoscopy if both procedures will be performed in the same space
- Changes differential pressure from Positive to No Requirement (N/R)
- CMS may not allow endoscopy and bronchoscopy procedures to be performed in the same room

CMS Application of ASHRAE 170

Ducted Return Air Systems

In addition to spaces listed in Table 7.1 that have differential pressure requirements, these spaces also must be served by ducted return air systems:

- Recovery Rooms
- Critical and Intensive Care
- Intermediate Care
- Burn Unit



Questions?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2018 edition
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