

**FHEEA**

**2023**  
*Fall*



**NOVEMBER 29 - DECEMBER 1**

St. Pete Bayfront Hilton

**IMPACTFUL AND RELEVANT EDUCATION; NETWORKING WITH INDUSTRY PROFESSIONALS; AND FUN!!!**

**Major Revisions to the FGI 2022 *Guidelines***

# Speaker:

# John Williams

**Vice President**, Content and Outreach  
**Chair**, Health Guidelines Revision Committee, 2026  
**Vice Chair**, Health Guidelines Revision Committee, 2022  
**Facility Guidelines Institute**

**Executive Director**, Facilities and Construction  
**Washington State Department of Health**

**Chair**, Committee on Healthcare, 2011-2023  
**International Code Council**



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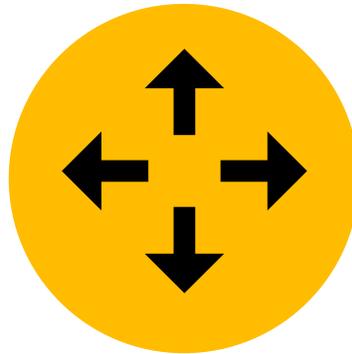
The views expressed in this presentation are the opinion of the speakers and may not be the official position of the Facility Guidelines Institute (FGI) or the Health Guidelines Revision Committee (HGRC).



# AGENDA



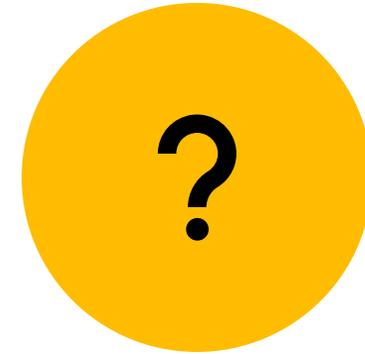
**Staffing**



**Major  
changes in  
2022**



**New Ideas for  
2026**



**Questions**

# Staffing Updates



# **DOUGLAS S. ERICKSON, FASHE**

**Chair of the 2010, 2014 and 2018 editions**

**Immediate Past Chair 2022**

**CEO Emeritus of the Facility Guidelines Institute**

**Senior Healthcare Advisor, Specified  
Technologies**

**Retires December 2023**



**Heather Livingston**  
Westhampton, Massachusetts  
*CEO*



**John Williams**  
Olympia, Washington  
*VP, Content and Outreach  
Chair, HGRC*

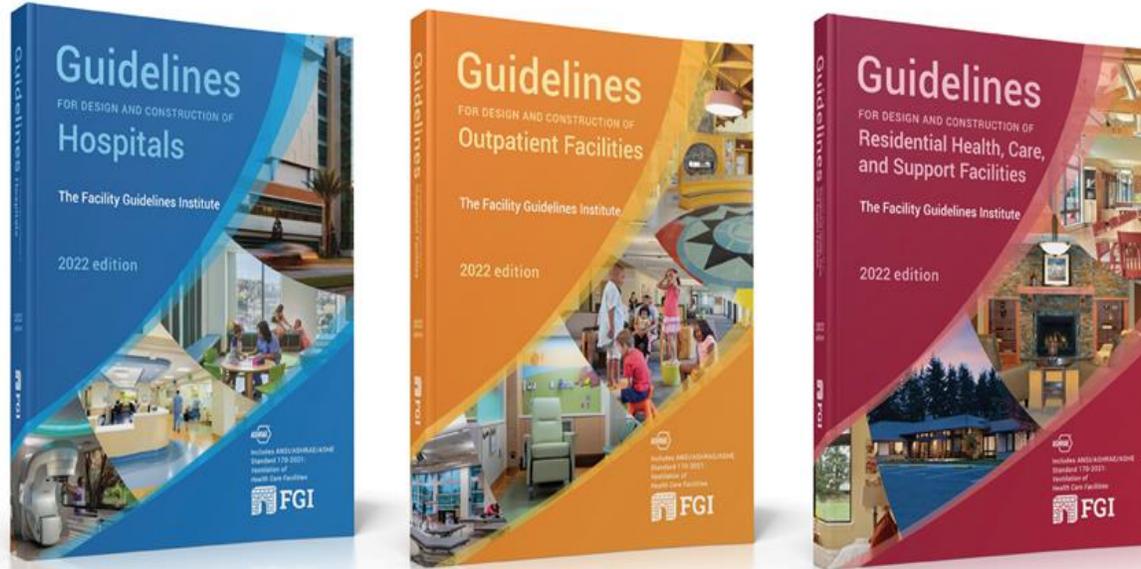


**Barbara Stretchberry**  
Middleton, Wisconsin  
*Managing Editor*



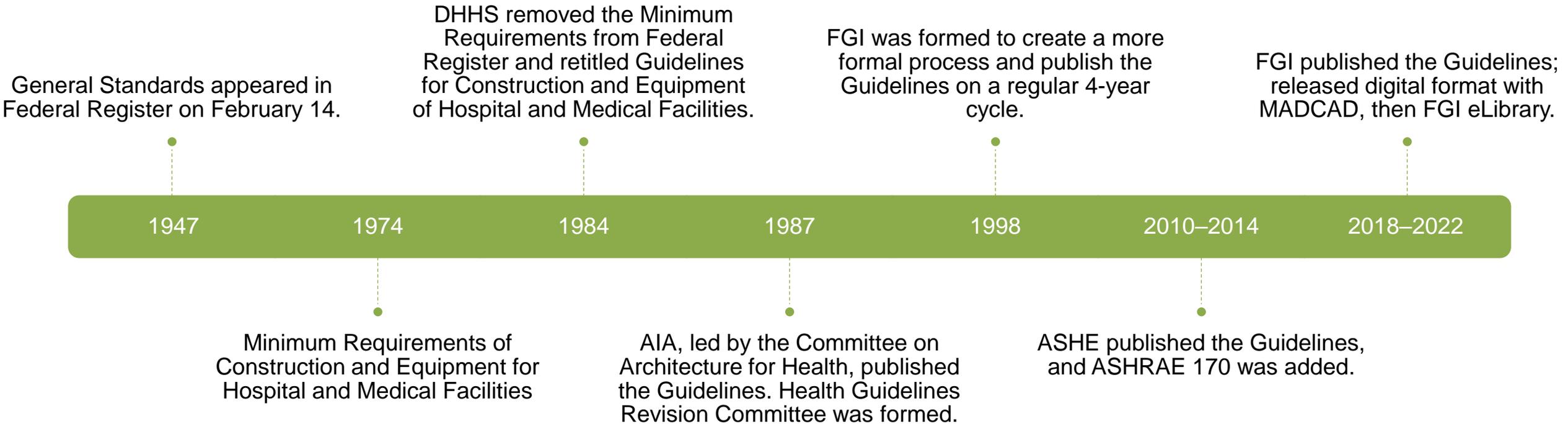
# FACILITY GUIDELINES INSTITUTE

The keystone to health care planning, design, and construction



- 501(c)(3) not-for-profit
- Develops and publishes three *minimum* standards
  - New work
  - Scalable
  - Risk based
  - Standard of care
  - Safe harbor
- Various supporting resources
- Manages a public consensus process to consider revisions

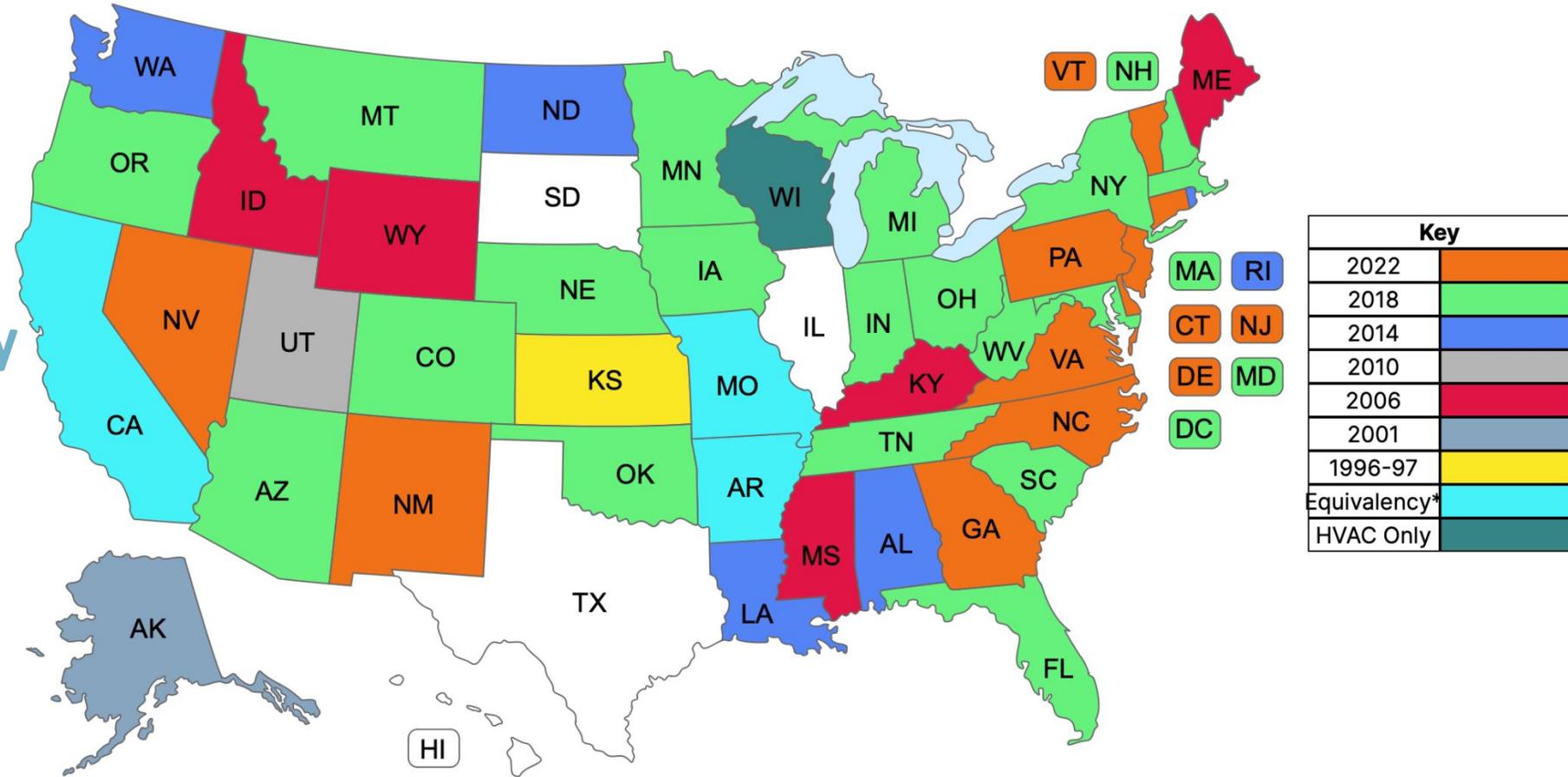
# History of the *Guidelines*



43 states have adopted some edition of the *Guidelines*.

Adoption by reference, typically by licensing agencies.

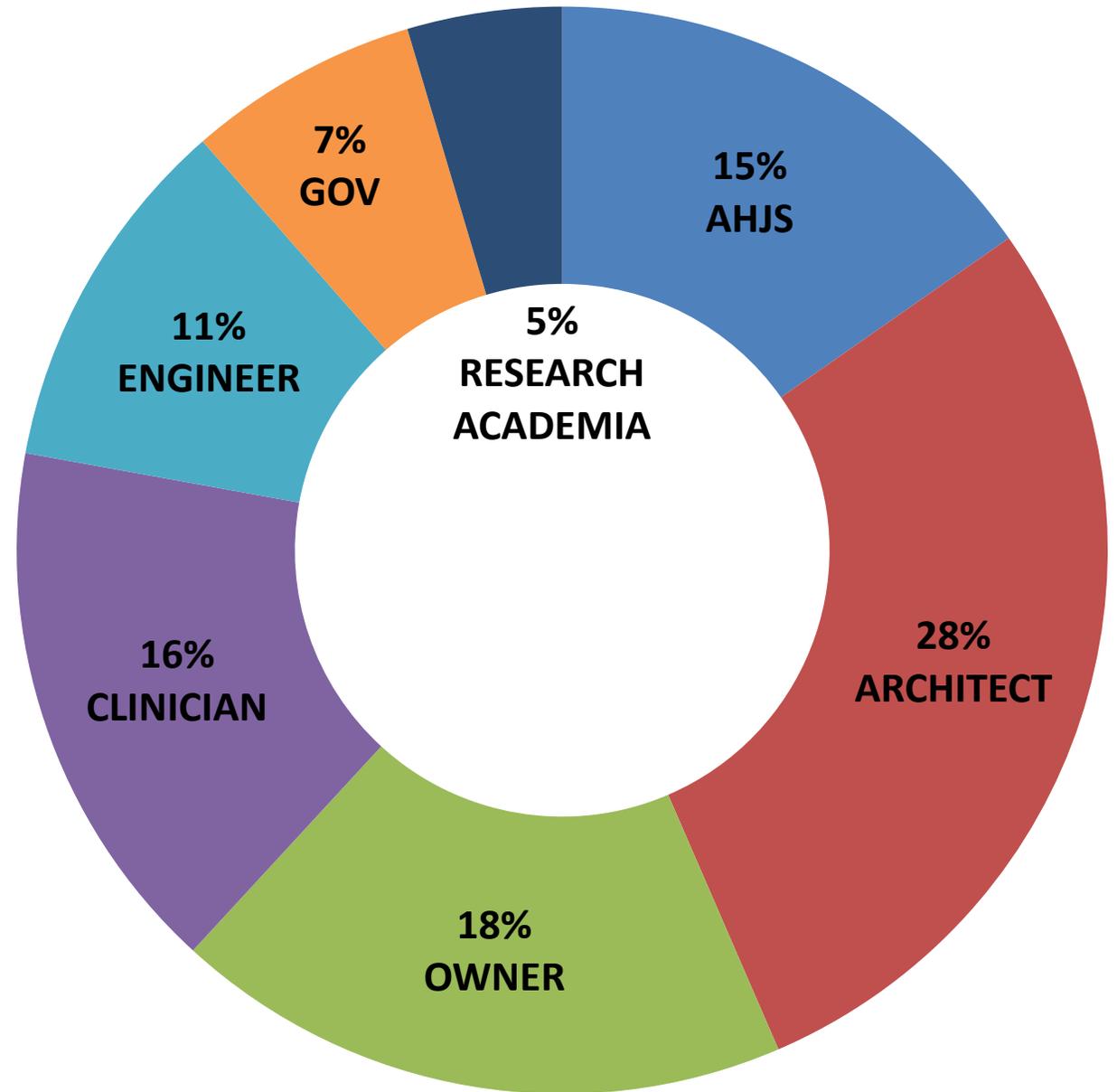
# State Adoption



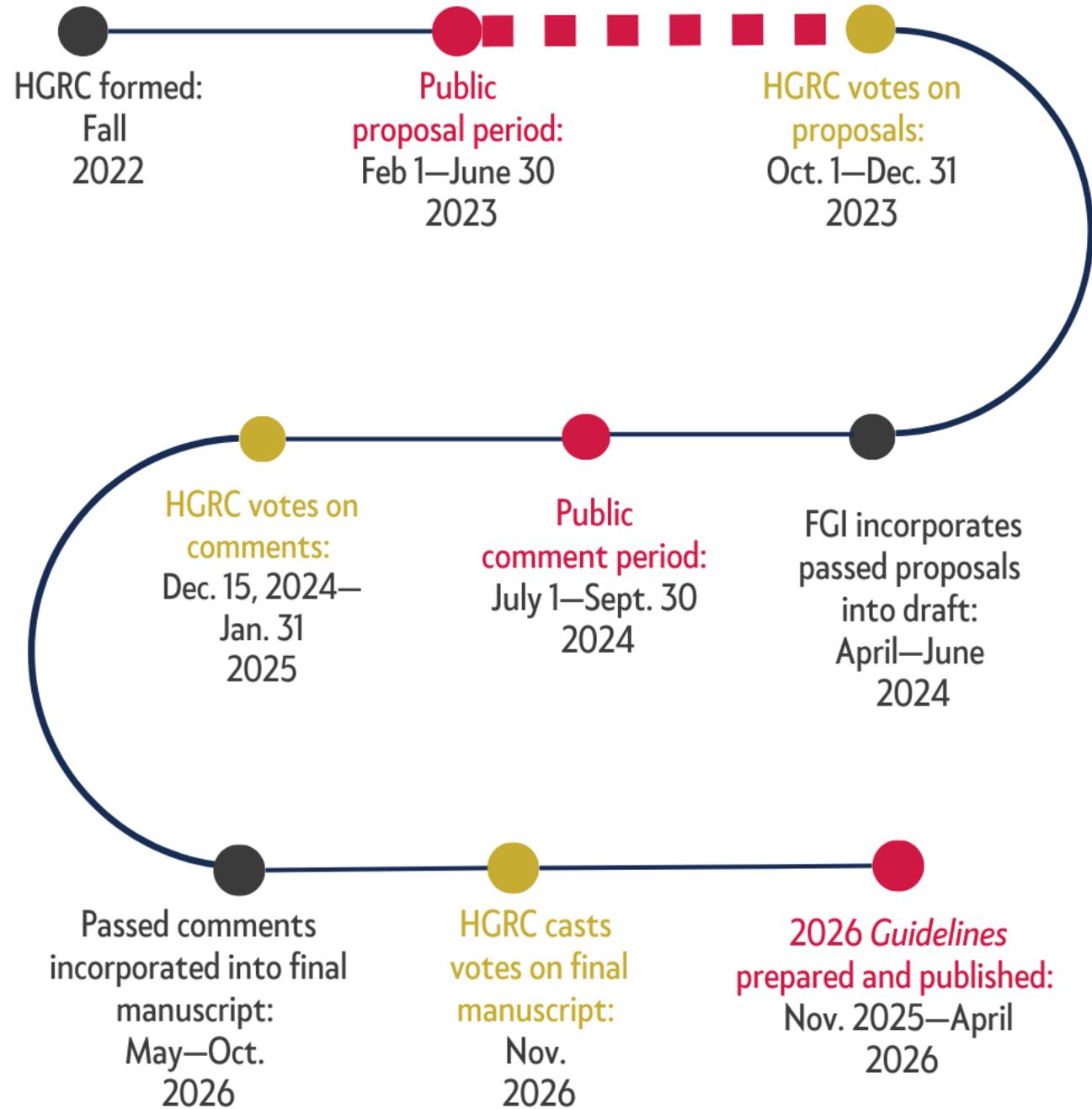
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# 2026 FGI Health Guidelines Revision Committee

138 volunteer members



# Where are we in the revision process?



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Guidelines ▾ Resources News & Updates Purchase

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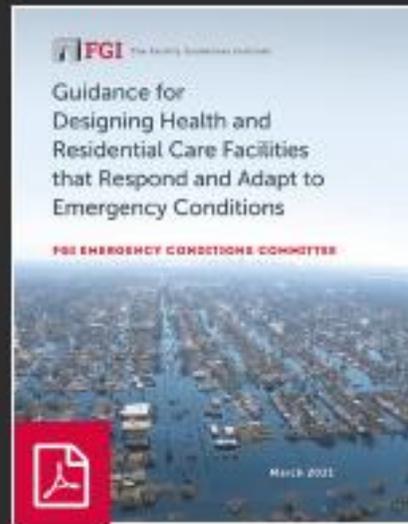
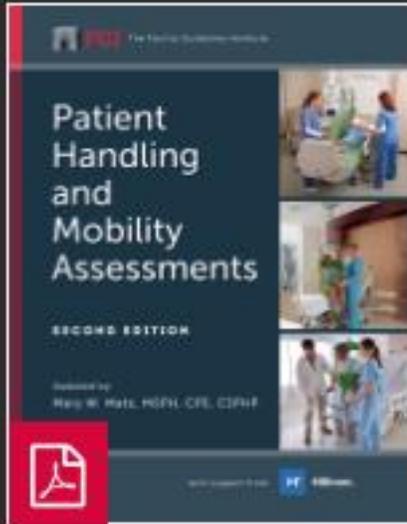


Adoption Map >

Errata & Addenda >

Proposal Site >

# FGI Resources



## Health Guidelines Revision Committee

A committee of the Facility Guidelines Institute

[www.fgiguidelines.org](http://www.fgiguidelines.org)  
info@fgiguidelines.org

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July 11, 2018

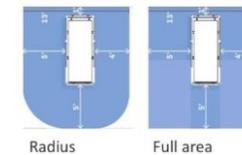
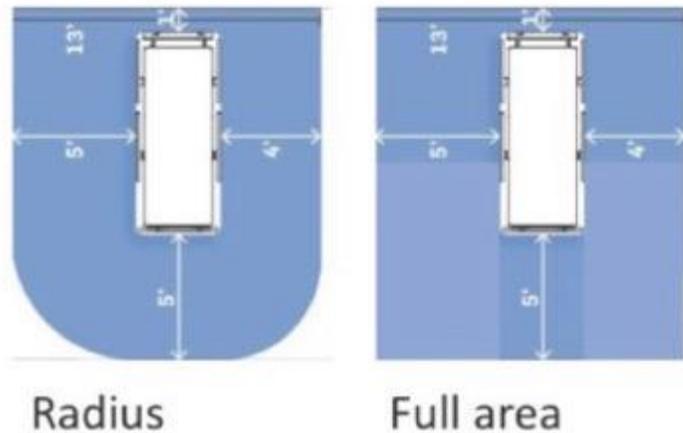
Richard Horeis, AIA  
HDR, Inc.  
Omaha, NE

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 the bed only require clearance for the width of the bed itself, or is the clearance to be extended to include transfer side width (5 feet) and non-transfer side width (4 feet), such that the width of the clearance at the foot of the bed totals 14 feet?

**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 well, space is needed for IV and pain management systems, warmers, etc., and for 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 the bed; however, the squared-off space this creates could be rounded off to accommodate structural or other non-movable encroachments. This response applies to all places in the *Guidelines* where clearance requirements are provided. The diagrams below may help clarify this response.



This correspondence is neither 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

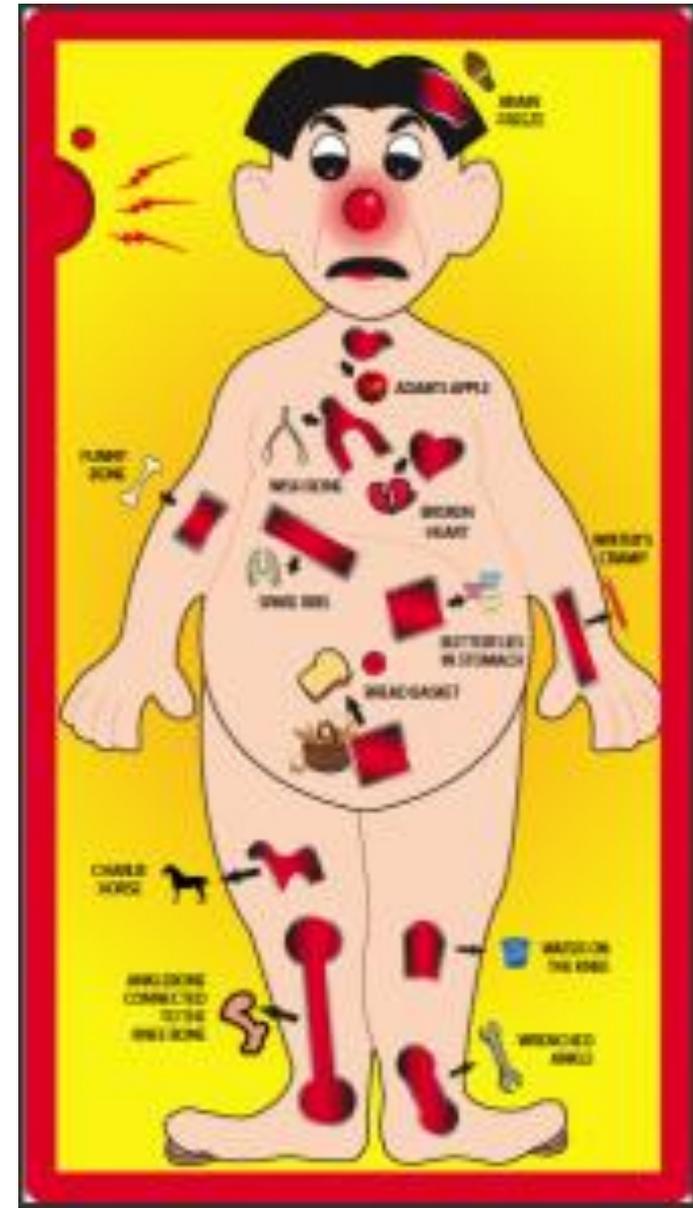
# Major Updates

**epic:**

unusually long or great  
in size or scope.

# Procedure Room Debate

- What is the difference between an operation and a procedure?
- Where's the line between:
  - Exam room
  - Procedure room
  - Small operating room
  - Big operating room



**1990s**

**Room  
typology**

**2000s**

**Anesthesia  
level**

**2010s**

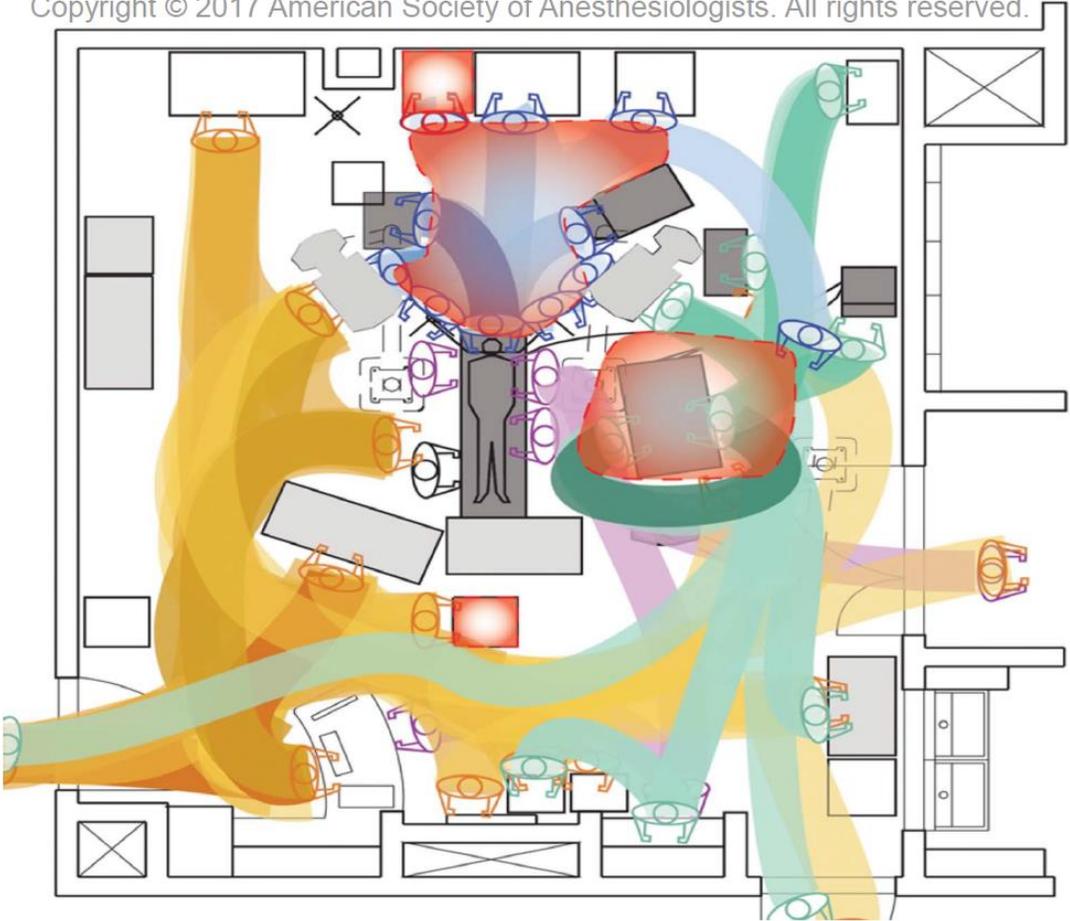
**“Invasive-ness”**

**2020s**

**Sterility,  
environmental  
controls,  
chart + classes**

# STUDY BY AMERICAN SOCIETY OF ANESTHESIOLOGISTS w/ CLEMSON Operating Room Architectural Flow Diagram

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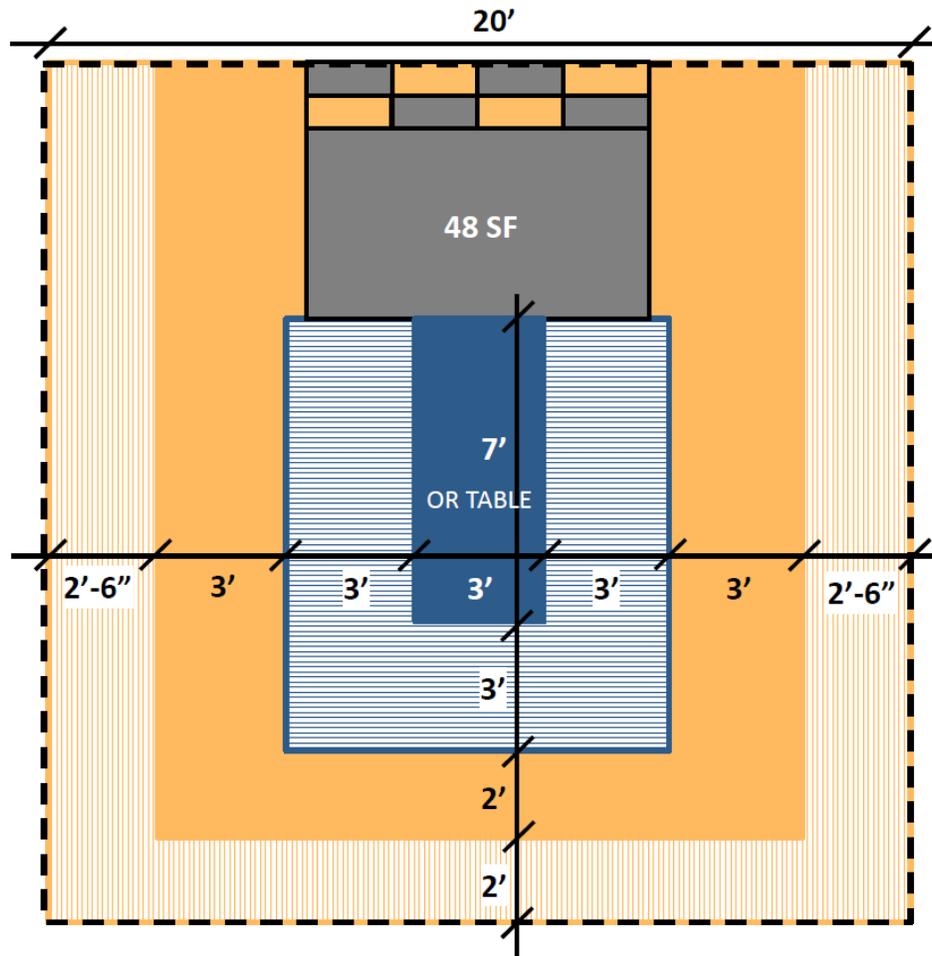


- Nurses
- Anesthesiologists
- Surgeons
- Perfusionists

**ANESTHESIOLOGY**  
The Journal of the American Society of Anesthesiologists, Inc.

**Realizing Improved Patient Care through Human-centered Operating Room Design:**  
*A Human Factors Methodology for Observing Flow Disruptions in the Cardiothoracic Operating Room*  
Anesthesiology. 2013;119(5):1066-1077.  
doi:10.1097/ALN.0b013e31829f68cf

# CLEARANCE ZONE DIAGRAM OPERATING ROOM – INPATIENT

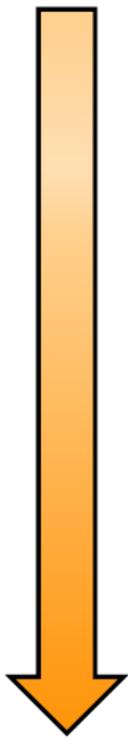


## INPATIENT OPERATING ROOM

- Patient area
- Sterile field where scrub and physician work
- Circulation pathway where the circulator walks to perform duties. Cannot walk into sterile field.
- Movable equipment zone where the required movable equipment is stored and provides for door swing and opening of fixed drawers or opening of door and drawers on carts
- Anesthesia 6' x 8' work zone
- Gray and White area is 2' area shared between anesthesia and circulator.
- CFA Clear Floor Area - 400 SF

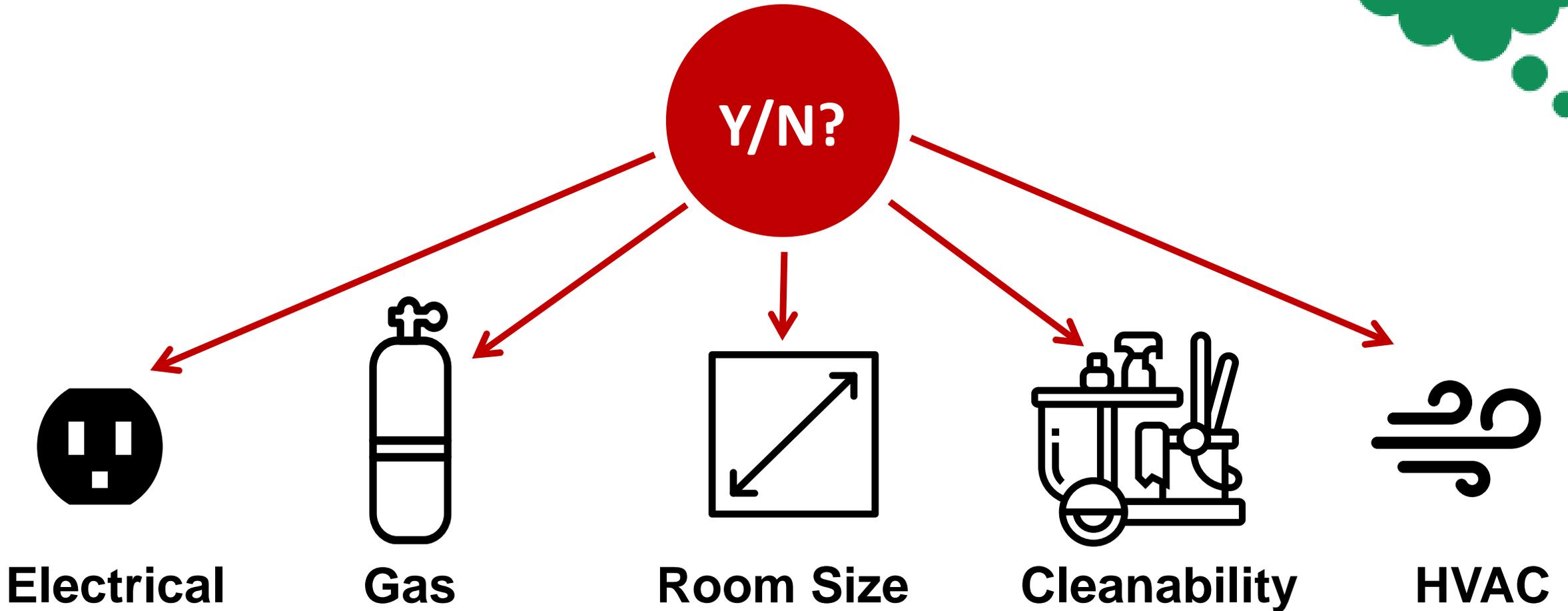
3' X 7' Gurney for planning purposes  
 3' at Sides & Foot – Sterile Field  
 3' at Sides, 2' at Foot – Circulation  
 2'-6" at Sides, 2' at Foot – Equipment  
 20' Minimum Width, 400 SF Minimum CFA

	Level of Invasiveness	Risk of Infection	Sterility of Environment	Infrastructure Room Finishes
<b>1</b>	Non Invasive	Low	Low, 4-6 ACH	Low
<b>2</b>	Limited		15 ACH	
<b>3</b>	Invasive, Any	High	High, 20 ACH	High



# Is this an operating room?

2026



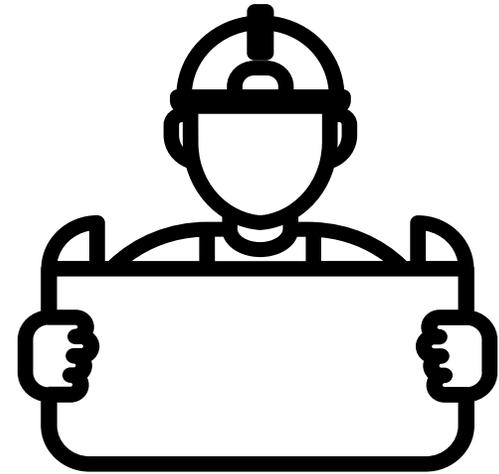
2026



**CLINICAL  
DECISIONS**



**PLANNING  
DECISIONS**



**ENGINEERING  
DECISIONS**



## Ceilings in ORs & Class 3 imaging

- Modular or prefabricated laminar flow ceiling systems if:
  - Seams / access doors gasketed
  - Structurally rated assembly
  - Access for maintenance
  - Diffuser compliant with ASHRAE 170
  - Devices and controls UL/ETL labeled

## Ceilings in restricted areas

- Remain monolithic



# Emergency Department

Requires **video surveillance** at public entrances to emergency facilities and a **duress alarm** where entrances may be locked.

When not in use for a trauma patient, this room shall be **permitted to be:**

- **Subdivided** to provide multiple patient care stations
- **Used for individuals of size** providing it meets requirements for treatment room for individuals of size

## Trauma room

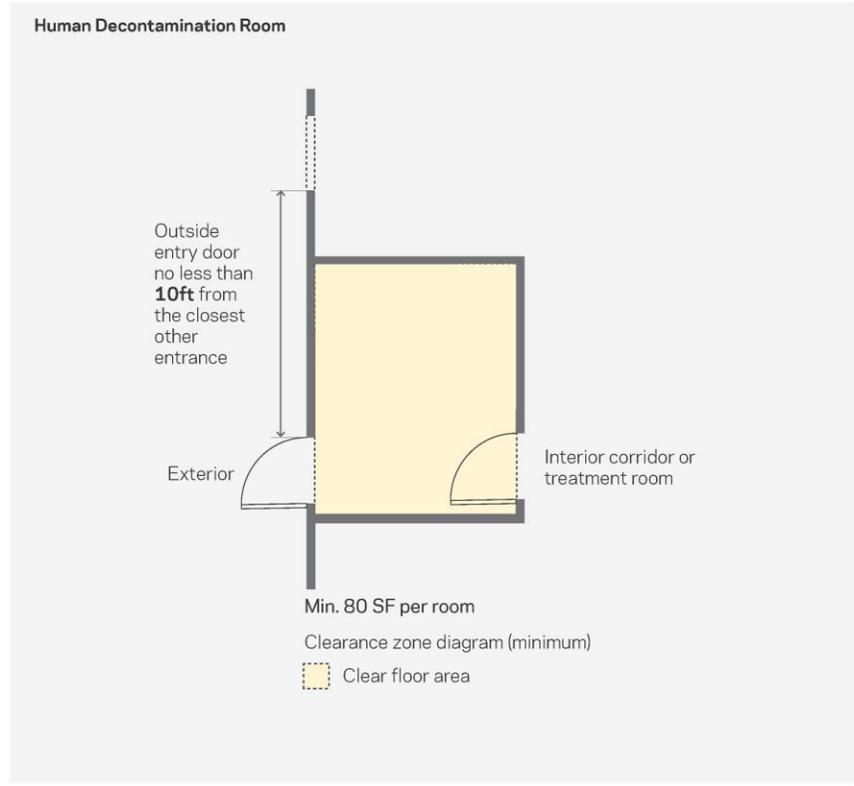
The physical space and operational plan **must accommodate quick conversion back** to a trauma room when needed, and each resulting patient care station must meet the requirements for the service to be provided.

@ HOK

@ HOK

Sample Space Layout

Diagrams in this document represent sample layouts of the minimum requirements for room types and may not meet the functional requirements for all projects.



Reference Guide	
CHAPTER	SECTION
2.2 Specific Requirements for General Hospitals	2.2-3.1.3.6 (B) Human Decontamination Room

# Emergency decontamination

Revisions of significance:

- Increased minimum size from ~~80 SF~~ to **100 SF**
- Shall be designed as a **wet location**
- Rinsate shall be prevented from leaving the room

Included are minimum requirements for exterior decontamination structures, where provided.

# Emergency severity index

Patients generally not requiring horizontal care:

Emergency Severity Index (ESI) and physically able to sit in chair

Levels 4 & 5

Some portion of Level 3 (estimated at  $\leq 50\%$  of patients)

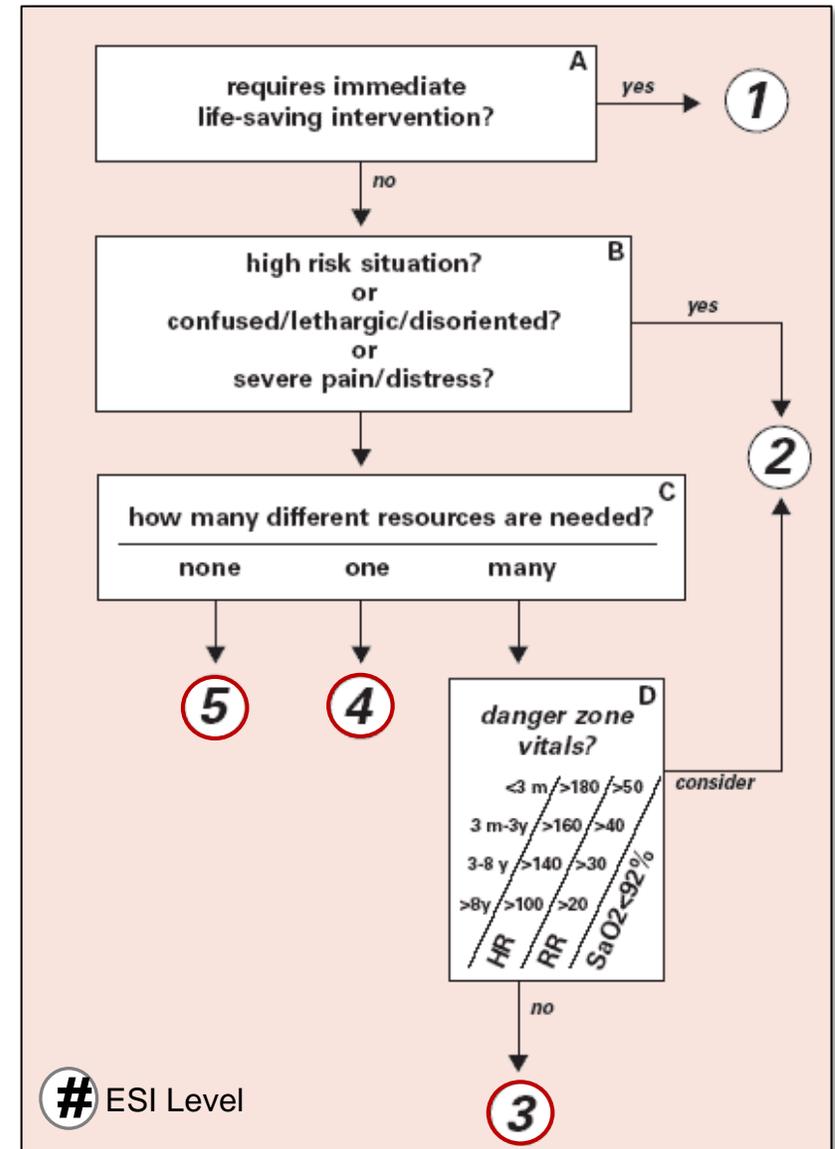
Results waiting

Flow RN/tech directs the patient by determining if the patient:

Needs resuscitation

Is disoriented or in severe distress

Is sick and need stretcher

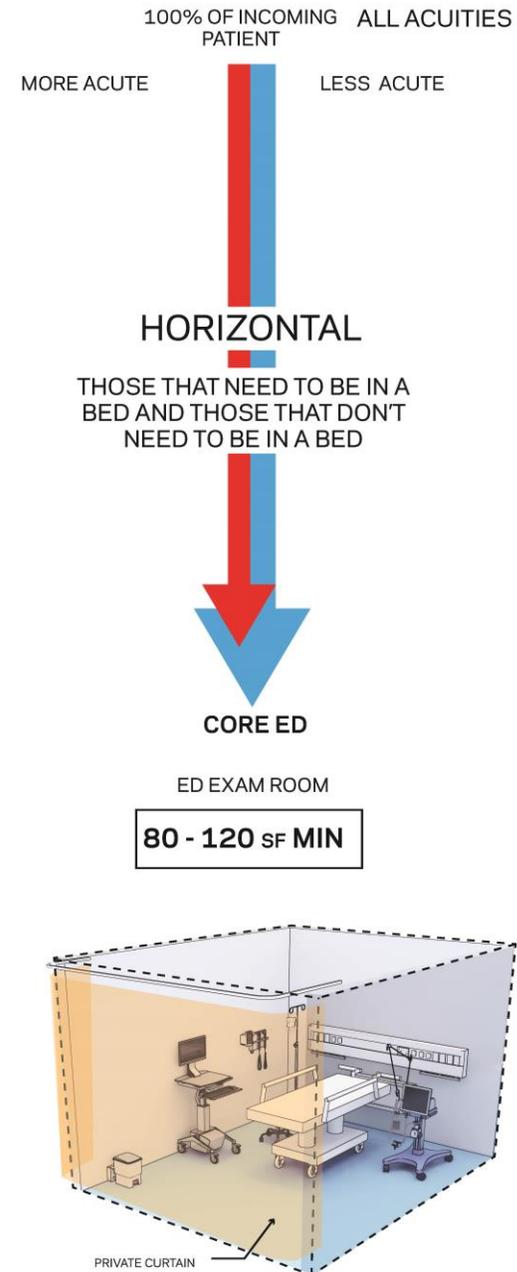


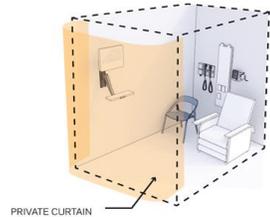
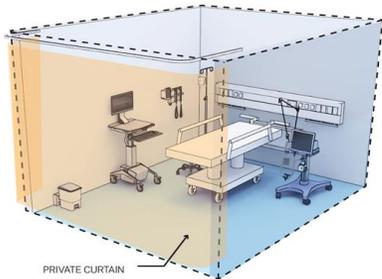
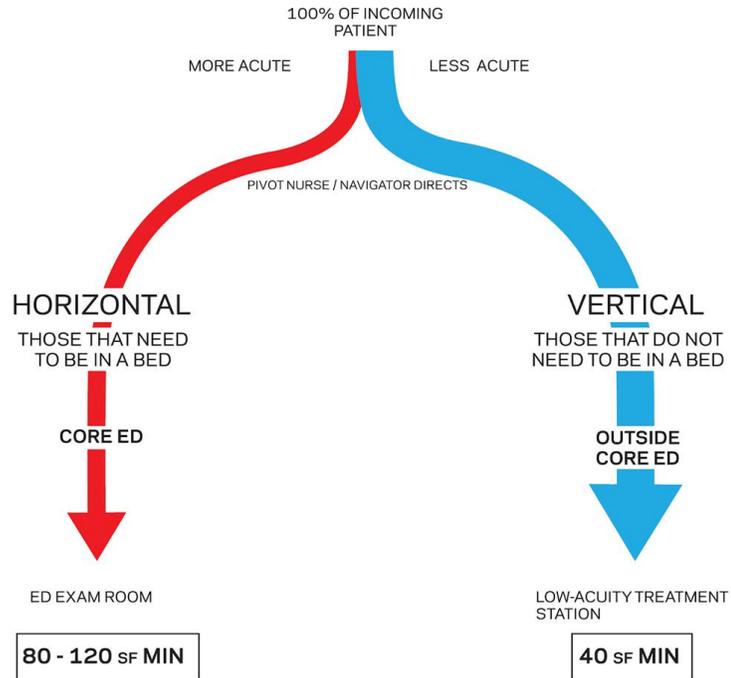
©ESI Triage Research Team, 2004.

# Current state

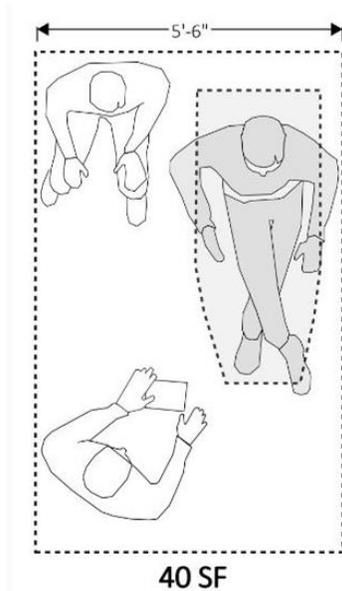
Aside from specialty rooms/areas (i.e., trauma, fast-track, individuals of size), there are two types of spaces for treatment of patients in the ED:

- Single-exam room at 120 SF CFA
- Bay or cubicle at 80 SF CFA





© NBBJ



© FGI

# Low-acuity spaces

## New section

- **40 SF** minimum clear floor area
- **5' 6"** minimum clear dimension
- **3'** at the side(s), head, or foot of the patient chair that corresponds with the care provider's expected work position(s)
- **Nurse call, 4 outlets, no gas**

# Rural Emergency Hospitals (REH)

- New CMS provider type
- Began Jan. 2023
- No inpatients\*
- 365/24/7
- Ambulatory health care occupancy
- Can convert back to hospital

2026



# Behavioral health crisis unit

This **dedicated emergency services unit**.

Physical environment controlled to help **alleviate stressors** for patients and staff.

- Open design
- Staff are imbedded in room
- Fully self-contained unit



# Behavioral health crisis unit requirements

- Nurse station, medication safety zone, consultation area, exam rooms, soiled, clean, nourishment, patient and staff toilets.
- Readily accessible to the emergency dept.
- Single-patient observation room
  - Single patient room 100 sq. ft.
  - 10 ft. clear dimension
- Multiple-patient room
  - 80 sq. ft. per person (total open area)
  - 4' between recliners
  - 3' clearance from recliner to walls



2026

# Outpatient crisis unit

- Medically cleared crisis patients
- Immediate patient evaluation
- Constant observation and re-evaluation
- Wellness and recovery-oriented approach



# ED rooms serving behavioral health patients

FGI *Guidelines* 2022 edition now includes 4 types of spaces:

1. Secure holding room
2. Flexible secure treatment room
3. Behavioral and mental health treatment room
4. Seclusion room

\* **Safety risk assessment** shall determine the types and number of rooms provided.



# Behavioral and mental health hospitals

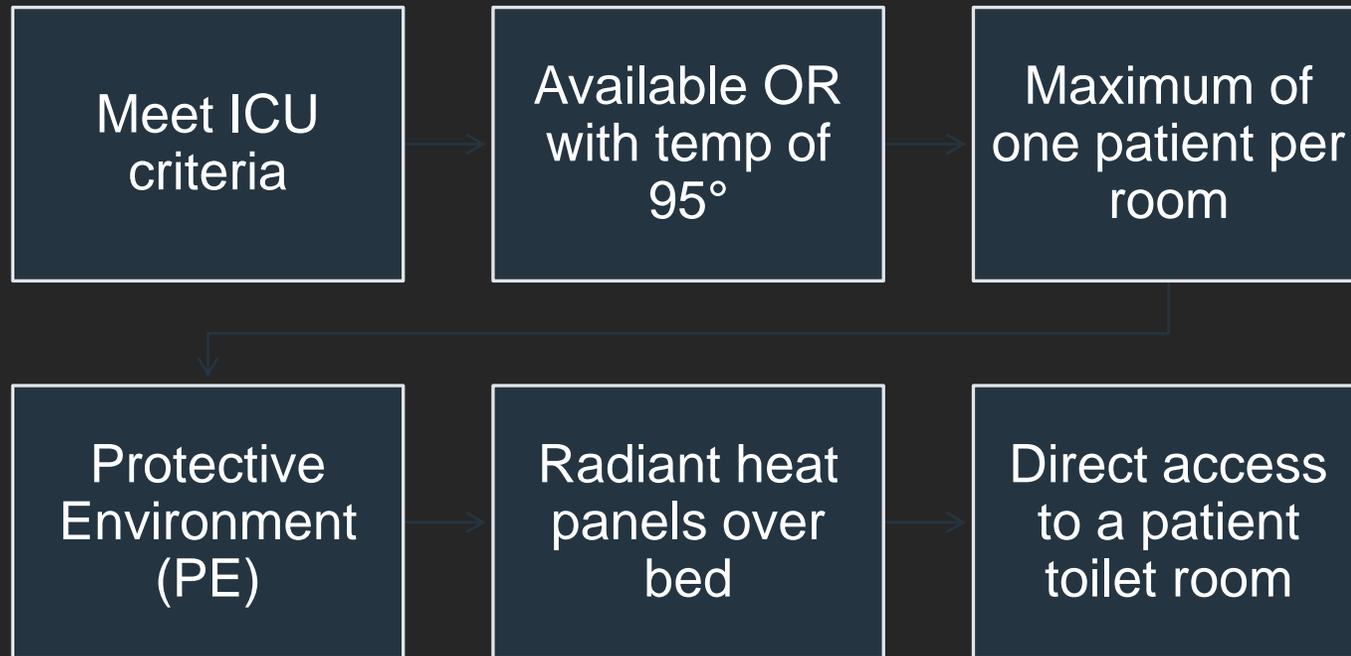
- Added requirements for a geriatric patient care unit
- Added transcranial magnetic stimulation (TMS) room
- Added intensive outpatient and partial hospitalization program (IOP/PHP)



# **New Space Types**

# Changes to the Hospital *Guidelines*: Burn trauma intensive care unit

---



# New OP hyperbaric section

---

- Multiplace facilities
- Monoplace facilities
- Pre-procedure area
- Support areas for staff
- Support areas for patients



# Hospice and/or palliative care room

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- 153 SF clear floor area
- Minimum 10' at head of patient bed
- CFA includes 33 SF for family support zone; provides space for overnight stay
- In renovation - 120 SF



# Emerging Ideas

# Nurse call

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## Call (nurse) systems

- Eliminated “optional” devices
- Staff assist can be by “other electronic means”
- Ancillary systems don’t have to be 1069 complaint
- Clarified use of radiofrequency systems



# Nurse call and telecom

2026

Eliminate reference to UL 1069?

Offsite monitoring stations

- Telemetry
- Nurse call



2026

# Emergency conditions

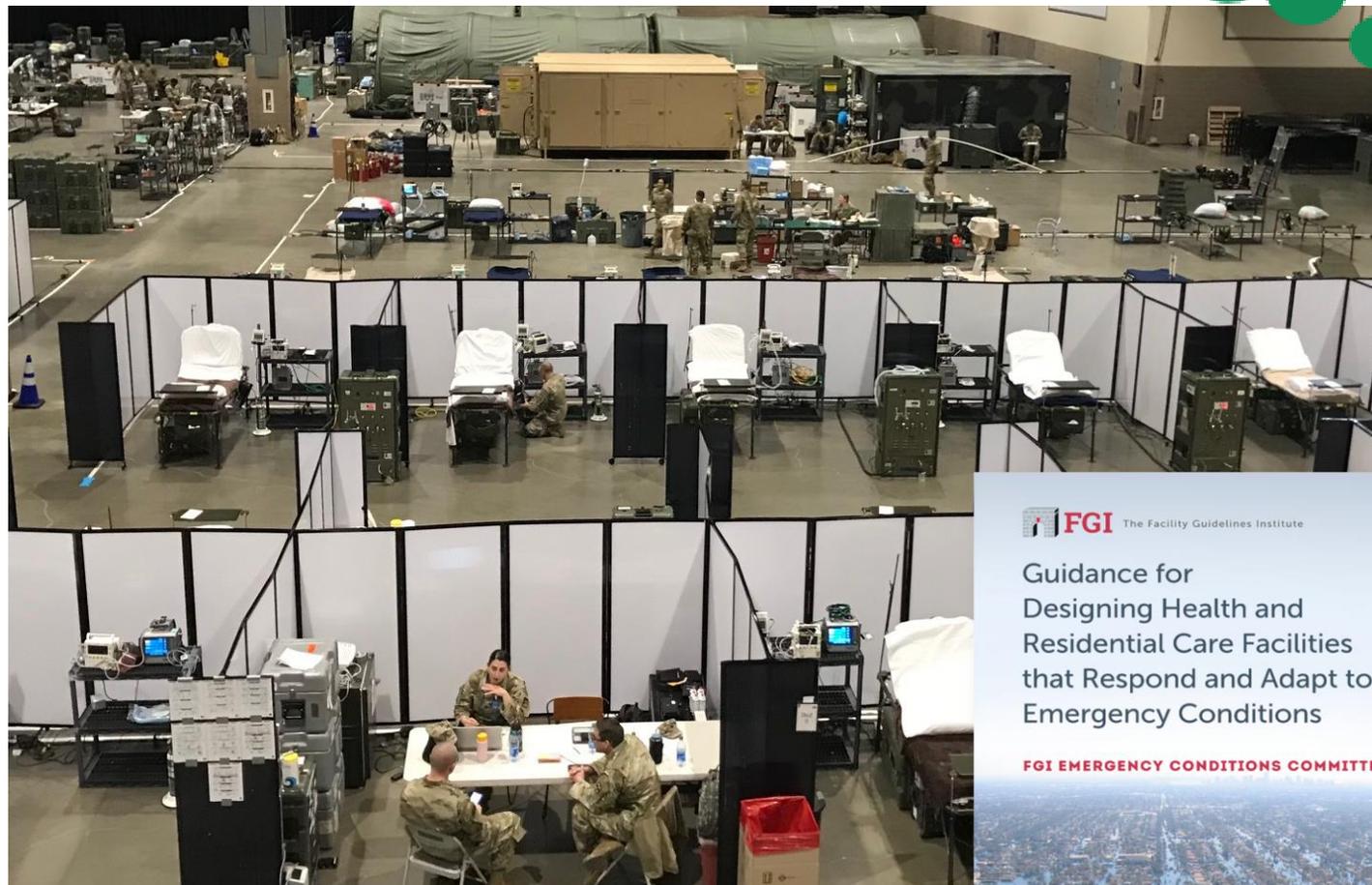
Consolidated DEVA

Added audio & visual means of communication in/out of All rooms

Incident Command Center

Non-refrigerated body holding room in Residential

Single-resident rooms proposed for Residential



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Guidance for  
Designing Health and  
Residential Care Facilities  
that Respond and Adapt to  
Emergency Conditions

**FGI EMERGENCY CONDITIONS COMMITTEE**



March 2021

# Plumbing changes

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Restriction of low-flow fixtures

Focus on water age

Treated water at sterile processing

Review of medical gas counts, including elimination of N<sub>2</sub>O systems



# Consolidated tables

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Most information in one table  
(like ASHRAE 170):

- Medical gas
- Electrical receptacles
- Nurse call

Will appear in 2026 draft



2026

# Sleep disorders center

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New chapter proposed on sleep study labs

Addresses requirements for:

- Sleep testing rooms
- Patient toilet room and shower
- Control room for patient observation

2026



# LOOKING AHEAD



REVIEWING  
USABILITY/NAVIGATION



DEVELOPING A  
HANDBOOK/COMMENTARY  
COMPANION



LAUNCHING A PODCAST

- Dashboard
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- 2022
- 2018
- Hospitals
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## 2018 Guidelines for Design and Construction of Hospitals

Automatic Zoom 42 (80 of 382)

Find in document... Highlight All Match Case Match Diacritics Whole Words

features:

- Establishment of a project energy efficiency goal
- Involvement of health care facility operations and maintenance staff in the design review process
- Development of a utility management plan (UMP) during the design process instead of during the post-occupancy period
- Comprehensive training of the operations and maintenance staff, including pre-testing to assess training needs and post-testing to ensure competency
- Testing of fire and smoke dampers prior to occupancy
- Measurement and verification of actual energy performance as compared to the energy efficiency goal

*total building commissioning (TBC)*

- Objective. TBC is a process whereby the governing body (i.e., the building systems and components (not all function according to design intent, manufacturers' data sheets, and use all building systems are integrated and validated, the owner can expect the commissioning process to improve occupant comfort, energy savings, environmental conditions, system and equipment function, building operations

...s and components included in TBC. Key systems and components that should be tested and validated, at minimum, during the TBC process include the design and operations of the HVAC, plumbing, electrical, emergency power, fire protection/suppression, telecommunications, nurse call, intrusion and other alarm device, and medical gas systems as well as specialty equipment.

Air balancing, pressure relationships, and exhaust criteria for mechanical systems should be clearly described and tested to create an environment of care that provides for infection control.

Areas requiring emergency power should be specified and tested.

Special plumbing systems should be certified to support the chemicals scheduled for use in them.

Water lines, taps, showers, and ice machines that have been disrupted or stagnant should be flushed before use by building occupants.

c. *Areas to be included in commissioning.* While all areas of a hospital are included in the commissioning process, areas of particular concern include critical care units surgical services; isolation rooms, including those used for airborne infection/pathogens; and pharmacies and other areas potentially containing hazardous substances.

**Searchable!**



### Patient Room for Patients of Size

Where accommodations for care of patients of size are provided, they shall meet the requirements in Section 2.1-2.3 (Accommodations for Care of Patients of Size). [Source: 2.2-2.1.3]

#### 2.1-2.3.2 Patient Room for Patients of Size

##### 2.1-2.3.2.1 General

- 2.1-2.3.2.1 (1)  Single-patient room
- Patient lift system
- 2.1-2.3.1.3  To accommodate patient handling, movement, and mobilization, lift for maximum patient weight defined during planning phase
  - Fixed (ceiling- or wall-mounted) lift
  - Mobile (floor-based) lift
- 2.1-2.3.2.1 (2)  For rooms designated for patients weighing  $\geq 600$  pounds, lift system to move patient from bed to toilet
  - Fixed (ceiling- or wall-mounted) lift to accommodate individual of  $\geq 600$  pounds
  - Mobile (floor-based) lift to accommodate individual of  $\geq 600$  pounds

##### 2.1-2.3.2.2 Space requirements

- 2.1-2.3.2.2 (2) Clearances
  - At foot of patient bed: 5 feet
  - Non-transfer side: 5 feet 6 inches from edge of patient bed
  - Transfer side:
    - Room with fixed lifts—Rectangular clear floor area parallel to the bed with the following dimensions:
      - 10 feet 6 inches long, beginning 2 feet from headwall
      - 5 feet 6 inches wide, measured from edge of patient bed
    - Room with mobile lifts—Rectangular clear floor area parallel to the bed with the following dimensions:
      - 10 feet 6 inches long, beginning 2 feet from headwall

**Questions?**

[john@fgiguidelines.org](mailto:john@fgiguidelines.org)

# Questions?



