



FGI

Formal Interpretations *Guidelines for Design and Construction of Hospitals, 2018 edition*

Decisions published here were rendered after a multi-person panel of Health Guidelines Revision Committee (HGRC) members reviewed the request and consensus was achieved. These decisions are considered formal interpretations of the HGRC, but they are not binding for states that reference the *Guidelines*. Rather, they are advisory in nature and are intended to help users and adopting authorities having jurisdiction (AHJ) maximize the value of the *Guidelines*.

Further comments from members of the Interpretations Committee have been added to some interpretations. These comments are intended as explanatory information for users of the *Guidelines* and are not to be considered part of the formal interpretation.

Formal interpretations are rendered on the text of the requested edition of the *Guidelines*. However, any interpretation issued shall apply to all editions in which the text is identical, except when deemed inappropriate by the HGRC.

In all cases, it is important to remember that the ultimate interpretation of information contained in the *Guidelines* is the responsibility of the authority having jurisdiction.

The Facility Guidelines Institute administers the procedure for developing formal interpretations. Please visit the FGI website at www.fgiguideines.org/interpretations to read “Rules for Requesting a Formal Interpretation” before submitting a request. Also on the FGI website is an electronic form for requesting a formal interpretation.

This document has been downloaded from the FGI website at the address just above. Interpretations are compiled continuously, and this summary document is periodically updated.

REQUEST

Guidelines edition: **2018 Hospital**

Guidelines reference: **2.1-7.2.3.1 (7)(a)**

Question: Is it the intent of *Guidelines* Section 2.1-7.2.3.1 (7)(a)(vii) (Floor and wall base assemblies) to require the toilet room associated with an AII room to have the same flooring type as the patient room?

Response: Yes, the intent of the *Guidelines* is to require the toilet room associated with an AII or a protective environment (PE) room to have floor and wall base assemblies that are monolithic and have an integral coved wall base that is carried up the wall a minimum of 6 inches (150 mm) and is tightly sealed to the wall.

Further Comments

Health care facility manager/owner: By its very nature and its adjacency to the AII room, this bathroom increases the risk of potential infection if it is not kept just as clean as the patient room it serves.

Health care architect: I think the coved base is a requirement because of the amount of cleaning and sanitizing needed for the listed spaces. Since the patient toilet room is a part of the patient room and serves the same patient, the cleanability requirement for the AII or PE room should extend to the associated patient toilet room.

Authority having jurisdiction: The requirement for a monolithic flooring material with an integral wall base is to provide for efficient cleaning and sterilization of the room. Because the toilet room is attached to the patient room, open to the patient room, and used by the same room occupant, the rooms are basically one and the same and would require the same level of cleaning and care; thus, the floor throughout both rooms is intended to be monolithic with an integral base.

Health care architect/owner: In my opinion, it is reasonable that the AII patient bathroom carry the same flooring requirement as the AII room based on the requirement in Section 2.1-2.2.6.1 (Patient Toilet Room: General), which states “each patient shall have access to a toilet room *without having to enter a corridor.*” [Italics added.]

“Without having to enter a corridor” means the toilet room is contiguous with the patient room. Since this is so, it would logically follow that the material requirements would also follow through. I do not see it as practical to meet the monolithic floor requirement in Section 2.1-7.2.3.1 if a different material is used in the adjacent/contiguous patient toilet room.

It would have been helpful to include the toilet room as an explicit requirement as the anteroom (although where provided) was, but that further strengthens my belief that the toilet room should have the same flooring requirement (why would a monolithic floor and wall base assembly be required for the anteroom and AII room but not for the bathroom?).

Compliance officer/owner: The toilet room is an extension of the patient care room and must have a monolithic floor with an integral coved base that has a minimum height of not less than 6 inches. The flooring material may change so it is technically not “the same” material, but the floor is monolithic with an integral base.

Infection preventionist: The patient toilet room is an extension of the AII room and, therefore, the same minimum requirements apply.

REQUEST

Guidelines edition: **2018 Hospital**

Guidelines reference: **2.1-8.4.2.6 (2)(c)(iii)**

Question: Does Section 2.1-8.4.2.6 (2)(c)(iii) require a 5-inch floor drain in front of each ice maker (countertop model, self-dispensing type) located in nourishment alcoves or locations other than the main kitchen and designated food preparation area.

Response: No, the *Guidelines* is very specific about where floor drains are required and where they are not permitted. However, there may be state or national standards on the draining of coil condensate or water from melting ice. We recommend you consult your state plumbing code and *International Plumbing Code* section 314.2 (Evaporators and Cooling Coils) for additional requirements.

Further Comments

Director of code and regulations for a large architecture firm: Section 2.1-8.4.2.6 (2)(c) refers to “food and nutrition services areas.” While the text does not give the specific reference or define “food and nutrition services areas,” this is intended to apply to Section 2.1-4.3 (Food and Nutrition Services).

Architect from a major health care organization: It is not the intent of the *Guidelines* to require a floor drain at each ice machine located in a nutrition room or alcove on a nursing unit or in any of the other support areas where a self-dispensing type of ice machine may be located.

Health care facility manager from a major health care system: Regarding ice machine placement in patient care areas for patients and staff, we do not require a floor drain in every room that has an ice machine. To require a floor drain at all locations is excessive and beyond the minimum standard.

Infection preventionist: From an infection prevention perspective, I read nothing in the guidelines that recommends locating a water drain in areas of a “nourishment center” as described in the inquiry. In practice, I have not observed a setup where a floor drain was installed or in place for an ice machine located in a nourishment center.

Infection preventionist: A floor drain is unnecessary for a countertop ice machine. In my experience, unit-based nourishment stations are under the purview of Nursing, not Nutrition and Food Services. I would think it unsanitary to have a floor drain.

REQUEST

Guidelines *edition*: **2018 Hospital**

Guidelines *reference*: **Table 2.1-1**

Question: What is the intent of the requirement for two receptacles on every wall of a medical/surgical patient room? We have designed a room that will have six walls, two or three of which would have no receptacles on them:

- Outside building wall (glass)
- Some rooms: entrance walls with sliding glass doors
- All rooms: a 45-degree bathroom wall with sliding door

The rooms are designed with 16 or 17 duplex receptacles on three or four walls when possible. Because of the room configuration, placement of two receptacles on each wall as required in Table 2.1-1 is not always possible.

Response: When the table was developed many editions ago, the assumption was the patient room would be rectangular with four well-defined walls: a headwall and three other walls around the patient station/bed. The minimum number of single receptacles in the table totals 12 for the medical/surgical patient room, which was the intention; these receptacles can be provided in single, duplex, or quad arrangement. You’ve highlighted that rooms are being designed with various shapes for which this minimum requirement may not provide adequate guidance.

The interpretation committee agreed the intention is for the number of receptacles in a medical/surgical patient room to agree with the number required at the patient bed location in the governing editions of NFPA 99: *Health Care Facilities Code* and NFPA 70: *National Electrical Code*. Additional receptacles shall be provided to support clinical functions and the personal needs of the patient and visitors.

This interpretation of the requirements in the 2018 edition, shown in the following excerpt from Table 2.1-1 (Electrical Receptacles for Patient Care Areas in Hospitals), will appear as revised language in the 2022 edition of the *Hospital Guidelines*.

[Excerpt] Table 2.1-1: Electrical Receptacles for Patient Care Areas in Hospitals

Section	Location	<u>Minimum</u> Number of Single Receptacles ¹	Receptacle Locations ²
PATIENT BED LOCATIONS			
2.1-2.4.2	All room ³	12	<u>Devices shall be located to support clinical functions and patient and visitor needs.</u> ⁴
2.2-2.2.2	Medical/surgical unit patient room ³		
2.2-2.2.4.4	Protective environment room ³		
2.2-2.5.2	Intermediate care unit patient room		
2.2-2.9.2.2	Postpartum unit patient room ³		
2.2-2.11.2	Pediatric and adolescent unit patient room ³		
2.6-2.2.2	Rehabilitation unit patient room	16	<u>Devices shall be located to support clinical functions and patient and visitor needs.</u> ⁴
2.2-2.6.2	Intensive care unit (ICU) patient room		
2.2-2.7.2	Pediatric intensive care unit patient room		
2.2-2.9.2	Neonatal intensive care unit (NICU) patient care station		

⁴The number of receptacles at the patient bed location for these spaces is intended to agree with the number required in the governing editions of NFPA 99: *Health Care Facilities Code* and NFPA 70: *National Electric Code*. Additional receptacles shall be provided to support clinical functions and the personal needs of the patient and visitors.

REQUEST

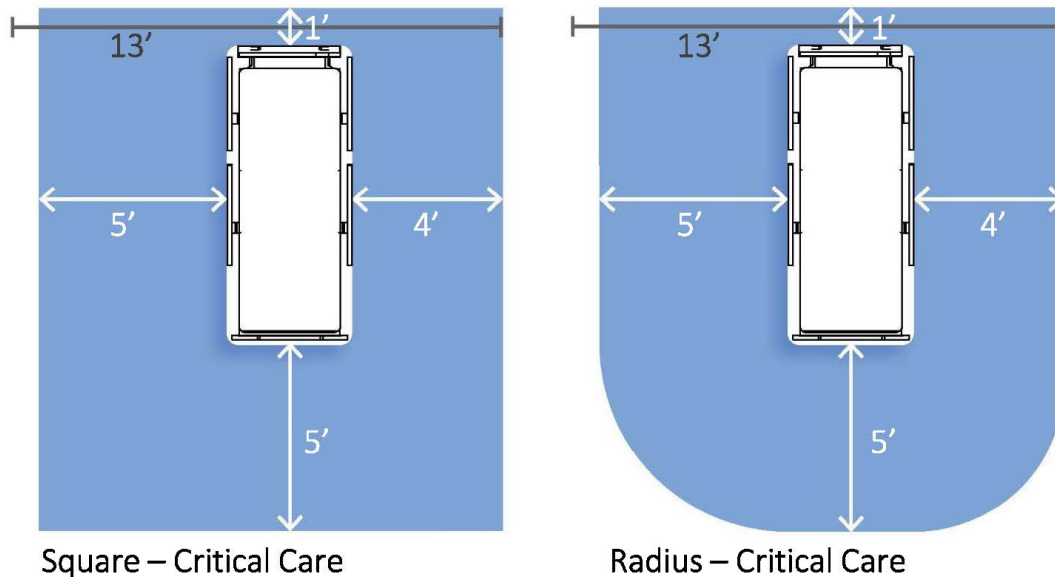
Guidelines edition: **2018 Hospital**

Guidelines reference: **2.2-2.6.2.2 (2)**

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.



REQUEST

Guidelines edition: **2018 Hospital**

Guidelines references: **2.2-3.1.3.6 (2) and 2.2-3.1.4.3**

Question: Is it permissible for a single room in a hospital or freestanding emergency facility to be used as both a secure holding room and an emergency department (ED) exam/treatment room? If so, what would be needed to make it possible for this room to meet the requirements of both a single-patient treatment room and a secure holding room? That is, how would such a room be made safe for patients who need a secure holding room? When FGI is adopted as state law, AHJs are very careful not to be flexible to avoid inconsistency. Clarifying this would be appreciated for *Guidelines* users and for the real need of such rooms.

Response: The *Guidelines* does not prohibit the use of a single room as both a secure holding room and an ED treatment room as long as the room meets the *Guidelines* requirements for both space types. The room design must be able to provide safety for both functions—accessibility to electrical and medical gas requirements, a hand-washing station, etc. for the treatment room and the ability to secure these services behind a closed door or panel (e.g., a rolling shutter or similar retractable panel) to meet the provisions for the secure holding room.

Further Comments

Architect: I have designed flexible rooms within the ED setting for secure holding rooms and typical treatment rooms with the gases and electrical outlets behind a secure overhead door. This design

required coordination and waivers with the local AHJ to provide the flexibility typically required within EDs that cannot afford the space for dedicated secure holding rooms and/or seclusion rooms.

Behavioral health expert: An ED secure holding room is not limited to use by a behavioral health patient and can often be used to hold an agitated or not yet fully stabilized patient until a more appropriate and staffed bed is available. When these rooms will be used as both an ED treatment room and a secure holding room, they must be designed to provide safety for both functions (i.e., exam accessibility to electrical and medical gas requirements and hiding these services behind a closed door or access panel for secure holding).

But the room should also meet expectations for limiting ligature attachment (i.e., a solid ceiling or ceiling with glued or clipped-in-place tiles, impact-resistant lighting, ligature-resistant HVAC grilles, and tamper-resistant electrical outlets protected by GFCI and a remote master switch. The door to the room should have ligature-resistant hardware and, to foil attempts at barricade, swing outward or be double-acting. Lastly, any glazing material, including that in a mirror or picture frame, should be shatter-resistant and, any operable window should be limited to an opening of 4 inches.

Authority having jurisdiction: The *Guidelines* is silent on the use of an ED secure holding room (defined by Section 2.2-3.1.4.3) for any other purpose. However, if the room in question meets the requirements for both uses then, logically, the room is compliant with the *Guidelines*.

I have seen rooms provided with temporary doors, grilles, or shutters that allow the room to meet requirements for both an ED treatment room and a secure holding room. With the temporary doors down, it meets the room dimension requirements and is devoid of outlets, accessories, objects, etc. I also have approved, through the exception or equivalency concepts in *Guidelines* Section 1.1, alternate designs that have larger minimum dimensions than 11'-0". The value added by providing an additional exam room, including shorter wait times and increased access to care, warrants the increase of the maximum dimension. An ED is typically a highly observed location. If someone is secluded, a staff person is watching them and can intervene with other means if necessary.

The original question stated that AHJs are careful not to be flexible to avoid inconsistency. If an AHJ consistently follows an equivalency or exception process that purposefully weighs the intent of the rule and the risks and the benefits of a design, then they are being consistent; the *Guidelines* permit this approach. If an AHJ determines that an exemption or equivalency is valid, then the room meets the requirements of the *Guidelines*.

Architect: A secure holding room can be used as an ED treatment room as long as all the requirements and appendix guidance are followed. The existing *Guidelines* language should allow for this dual use; however, the essence of how a secure holding room works may not be met when the two room uses are combined unless attention is paid to the location of the room. ED treatment rooms are often located on the "front lines" in the emergency department close to the triage area, but it is recommended secure holding rooms be in a more discreet location. Can these two functions work for the operations of the ED? In small settings, such as critical access hospitals, you can easily accomplish both the frontline position and discreet location for a dual-purpose or transformative room combining secure holding and examination. In larger emergency departments, accomplishing this may not be so successful.

REQUEST

Guidelines edition: **2018 Hospital**

Guidelines references: **2.2-3.1.4.3 (2)**

Question: Is it the intention for the *FGI Codes/Guidelines* to allow the use of a push plate on the inside of a secure holding room door, provided it meets the anti-ligature requirement in the *FGI Codes/Guidelines*? Or does it mean that the inside of the door is a slab with zero hardware?

Response: **No hardware should be on the interior of the door.** The requirement that secure holding room doors “shall have hardware on the exterior side only” means that door hardware is not permitted on the interior side of the door. A blank push plate or other non-operable door hardware on the interior side does not comply with this requirement. The committee’s review identified one door assembly that can meet the requirement with hardware on the exterior side and no hardware on the interior side.

Question: If the HGRC’s intent of not having hardware on the inside of the door is purely anti-ligature concerns, may the requirement be interpreted to permit compliant ligature-resistant door hardware on the interior side of the door when such hardware is necessary to satisfy life safety, latching, and operational requirements?

Response: **No.** The requirement does not provide an exception permitting ligature-resistant hardware on the interior side of the door when such hardware is needed to satisfy latching, operational, or other requirements. The interpretation committee concluded that the prohibition of interior hardware addresses safety concerns beyond ligature risk and that the requirement is the appropriate minimum standard.

Question: If so, should the language be revised or corrected to align with the 2026 language for the Flexible Secure Treatment Room, which explicitly permits ligature-resistant door hardware on the interior side of the door?

Response: **No.** The flexible secure treatment room and the secure holding room are distinct room types with different intended functions. It’s clear that these two room types do not align, and this interpretation committee does not think it’s appropriate to change any requirements now. The interpretations committee will leave it to the 2030 Code Revision Committee to evaluate requirements among all behavioral and mental health room types to ensure they’re consistent where appropriate. The exception permitting ligature-resistant hardware on the inside of the door applies specifically to that flexible room type and does not alter the requirements for a dedicated secure holding room.

Further Comments

Principal architect, specializing in mental and behavioral health care design: Secure holding rooms are physical resources for provider organizations when a patient has escalated to a state of harming themselves or others, serving as a safe location until the patient de-escalates or is moved to a higher level of care. Consequently, ligature attachment points are not the only concern for hardware or devices inside these rooms. Any protruding elements located within a secure holding room must be carefully considered, as they can potentially be used for self-harm, such as head or body impact injuries.

In my opinion, if we allow push plates or other ligature-resistant hardware that may be used to injure [others or] oneself (e.g., plates have been known to be used for self-harm), then we aren’t being consistent with the original intention of this item. If there is strong contention that this should be modified, I suggest including it in the 2030 review process so it can be properly vetted.

Plan reviewer and authority having jurisdiction (AHJ): The requirement is clear, there should be no hardware on the inside of the door. This can be accomplished with a half-trim lockset. This can be accomplished with products on the market. There is nothing that requires this door to be fire-rated, other than a coincidental consequence of a design. As an AHJ, I've never seen where this has been a problem for a design that could not be solved. These types of spaces are unique and are some of the most secure environments inside a hospital. If a particular design does not need that level of security, there are other options to select.

The *FGI Codes/Guidelines* provide a set of solutions for behavioral health both in the emergency department and in behavioral and mental health units. These options provide safe and secure environments for the diversity of physical environments, which is important. The requestor's comment that the "planned operational use of these rooms is that no patient will ever be locked inside or left unobserved" leads me to believe this is not actually a secure holding room.

Plan reviewer and authority having jurisdiction (AHJ): In my opinion, that is very clear: there should be nothing on the inside of the door. If we start to say push plates or other types of hardware that may be attached to the inside of the door are allowed as long as they are anti-ligature in accordance with the *Guidelines*, then in my opinion we are not being consistent with the requirement because while a push plate may not be latching door hardware, it is still door hardware just like kick plates, emergency egress bars, pulls, etc.

Authority having jurisdiction (AHJ): The door hardware requirement for a secure holding room is not limited to eliminating ligature points. The language prohibits interior hardware without distinguishing among types of hardware or the hazards presented. The prohibition of interior hardware reflects the broader safety and security objectives of a secure holding room for patients who may pose an immediate risk of violence or self-harm. Other patient treatment rooms are permitted to have ligature-free hardware, but not the secure holding room.

Principal architect, specializing in mental and behavioral health care: I believe the intention of this section is for patient safety, so the environment is limited as a factor allowing the patient to self-harm. But having no hardware on the inside of the door is a bridge too far. The code has inadvertently created seclusion. The *FGI Codes/Guidelines* requirements should not supersede the life safety code. While it is possible for other hardware to be on the exterior of the door and still allow egress, a ligature- and tamper-resistant lever on the interior side of the room would meet the life safety code.

Facility manager/owner: I believe a push plate should be permitted on the interior side of the door, provided it meets the ligature-resistant requirements of the *Guidelines*. In my view, this is consistent with the intent of the requirement.

REQUEST

Guidelines edition: **2018 Hospital**

Guidelines references: **2.2-3.3.4.3 (2) and 2.2-3.4.1.3 (1)(d)**

Question: There is a conflict between the control room door requirements for hybrid ORs and Class 2 and 3 imaging rooms in the 2018 Hospital *Guidelines* (see explanation just following). Should the exception to omit the control room door permitted for the hybrid OR also be permitted for imaging rooms?

Walls and a door required between control room and OR or imaging room:
Section 2.2-3.3.4.3 ([Hybrid OR:] Control room) and Section 2.2-3.4.1.3 (1)

([Imaging Services: General] Shielded control alcove or room) require walls and a door between a control room and a hybrid OR or Class 2 or 3 imaging room.

Exception to omit door for hybrid OR: Section 2.2-3.3.4.3 (2) permits this exception: “The door shall not be required where the control room serves only one operating room and is built, maintained, and controlled the same as the operating room.” This exception does not appear in the imaging section.

Response: It is acceptable to omit a door between the control room and a single Class 2 or Class 3 imaging room when the entire space is maintained at the same ventilation standards. It appears the HGRC missed the opportunity to coordinate this issue when updating the imaging requirements for 2018, but it is the task group’s view that the intent was the same for a control room serving a single OR and for a control room serving a single imaging room.

The task group agreed this discrepancy should be addressed by adding the second sentence currently in the hybrid OR text at 2.2-3.3.4.3 (2) to the imaging text in 2.2-3.4.1.3 (1)(d), as shown below.

As a result of this change, the task group found the language in paragraph (1)(e) confusing and unnecessary as paragraph 2.2-3.4.1.3 (1)(d) now addresses the issue of room pressurization, stating that the control room and imaging room will be “maintained” and “controlled the same.”

2.2-3.3 Surgical Services

...

*2.2-3.3.4 Hybrid Operating Room

...

2.2-3.3.4.3 Control room. Where required, a control room shall be provided that accommodates the imaging system control equipment.

...

- (2) The control room shall be physically separated from the hybrid operating room with walls and a door. The door shall not be required where the control room serves only one operating room and is built, maintained, and controlled the same as the operating room.

*2.2-3.4 Imaging Services

*2.2-3.4.1 General

...

*2.2-3.4.1.3 Radiation protection....

- (1) Shielded control alcove or room....

...

- (d) The control room shall be physically separated from the Class 2 or Class 3 imaging room with walls and a door. The door shall not be required where the control room serves only one imaging room and is built, maintained, and controlled the same as the imaging room.

- ~~(e) Where an imaging room requires positive (or negative) pressure, a door shall be provided between the control room and the imaging room.~~

REQUEST

Guidelines edition: **2018 Hospital**

Paragraph reference: **2.2-3.4.8.19 (2)(b)**

2.2-3.4.8.19 Facilities for processing ultrasound probes. Where cleaning and high-level disinfection of ultrasound probes are performed in a dedicated room or area, the following requirements shall be met:

...

- (2) Where ultrasound probes are processed at the point of use or in a separate room or area using a self-contained, automated high-level disinfection unit specifically designed for ultrasound probes:
 - (a) Space for the device with access to an electrical receptacle shall be provided.
 - (b) Access to a soiled workroom with an instrument-washing sink shall be provided in the same clinical area to support probe decontamination when necessary.

Question: If a self-contained unit (Trophon) is used for probe decontamination, is a soiled *workroom* required or does the “when necessary” language in 2.1-3.5.8.19 (2)(b) mean it is up to the health care organization to decide whether or not a soiled workroom is provided? Specifically, can a soiled *holding room* be provided instead of a soiled *workroom*?

Response: Where ultrasound probes are processed in a separate room or area using a self-contained, automated high-level disinfection unit specifically designed for ultrasound probes (such as a Trophon), the requirements in (a) and (b) apply; space for the device with access to an electrical receptacle shall be provided and access to a soiled workroom with an instrument-washing sink shall be provided in the same clinical area. *A soiled workroom is required.*

Further Comments

Vice president, plant services/facilities: The soiled workroom includes a sink, which is necessary in the decontamination process for the probes, even if a Trophon is used. The sink is used to wash bulk material from the probe. “When necessary” refers to when high-level disinfection is necessary, not whether the health care organization decides to include a soiled workroom. High-level disinfection triggers the requirement for the soiled workroom.

Authority having jurisdiction, state plan reviewer: These self-contained, automated high-level disinfection units are not plumbed, so any biological material that is on the probe could not be disposed of in that unit; therefore, the probes should be cleaned, when necessary, prior to being placed in the unit.

Engineering program manager, state department of health: The term “when necessary” refers to occasions when probes must be cleaned in an instrument-washing sink before high-level disinfection. Therefore, the minimum requirement is an instrument-washing sink in the same clinical area as the Trophon. Instrument-washing sinks are generally found in a soiled workroom and not a soiled holding room.

Manager of infection prevention and control: IPC (infection prevention and control) guidelines recommend use of a probe cover with probes that will require high-level disinfection. The probe still needs to be cleaned, but generally the cover prevents gross contamination of the probe that would require a soiled workroom to remove remaining bioburden. As well, other guidelines describe means for

transporting probes when and if a soiled workroom is needed. In other words, there are options when a soiled holding room would work as long as staff have access to a soiled workroom somewhere in the same clinical space. Which type of room is chosen needs input from frontline staff or clinicians who are using the space and performing the procedures. In the ultrasound area, they might have a soiled holding room; however, there needs to be a soiled workroom readily accessible (e.g., in the imaging department) to support probe decontamination when it's necessary.

Authority having jurisdiction, state plan reviewer: Probe decontamination requires provision of a soiled workroom with a sink suitable for instrument-washing (e.g., utility sink), not just a soiled holding room. The Trophon unit produces water as a byproduct “that can be disposed of in a sink” per the manufacturer’s website. The appropriate fixture for such disposal is an instrument-washing sink, either in an ultrasound probe processing room or in a soiled workroom. There should not be any temptation to use (and contaminate) a handwashing station. “When necessary” means probe disinfection is not necessary after every procedure, but it is required at times; therefore, the soiled workroom shall be provided.

Assistant director, design and construction: A soiled workroom with an instrument-washing sink is mandatory. It may not be necessary to use the instrument-washing sink for every case. Saying that, provision of a soiled workroom specifically for ultrasound is not necessarily required. It shall be provided, but it can be in the same clinical area. It may only be required if the probes are being processed at the point of use or in a specific room solely designated for ultrasound probes as stated in 2.1-3.5.8.19 (2). Even so, staff need access to a soiled workroom in the same clinical area. If the ultrasound room(s) in a facility are in the same clinical area as other modalities that require a soiled workroom and that room can be accessed by ultrasound staff, a soiled holding room may be provided, if necessary, operationally.

REQUEST

Guidelines *edition*: **2018 Hospital**

Guidelines *reference*: **Chapter 2.4**

Question: I am working on a 51,000-square-foot critical access hospital (CAH) and have a question on the need for airborne infection isolation (AII) rooms for emergency services in a CAH.

Chapter 2.4, Specific Requirements for Critical Access Hospitals, in the 2018 FGI *Guidelines for Design and Construction of Hospitals* references Section 2.2-3.1.2 (Basic Emergency Services) in Chapter 2.2, Specific Requirements for General Hospitals. However, Section 2.2-3.1.4.2 (1) includes another requirement for emergency services facilities as shown below:

2.2-3.1.4.2 Airborne infection isolation (AII) room

- (1) At least one AII room shall be included as part of basic emergency care facilities and in emergency departments. The need for additional AII rooms or for protective environment rooms as described in Section 2.2-2.2.4.4 (Protective environment room) shall be determined by an ICRA.

...

We are providing two AII rooms in the acute care area of the hospital. The emergency department (ED) will have access to use these rooms for a patient who requires isolation. My question is, does this satisfy the requirement for at least one AII room for basic emergency care?

Response: The cross-reference to Section 2.2-3.1.2 in Chapter 2.4 that is noted in your inquiry does not include the text on AII rooms in Section 2.2-3.1.4.2 shown above (an oversight that has been corrected in the 2022 FGI Hospital *Guidelines*). Without a cross-reference in Chapter 2.4 to Section 2.2-3.1.4 (Special Patient Care Areas), the default text regarding AII rooms for a CAH would be Section 2.4-2.2.4.2 (Airborne infection isolation room), which predicates the requirement for an AII room on an infection control risk assessment:

2.4-2.2.4.2 Airborne infection isolation (AII) room. Where a dedicated AII room is required by the infection control risk assessment, it shall meet the requirements in Section 2.1-2.4.2 (Airborne Infection Isolation Room).

That said, having an AII room—or two in your case—is an excellent resource for any community relying on a CAH. Of course, the final arbiter will be your AHJ, but the FGI Interpretation Committee believes the proposed locations for your two AII rooms meet what is required by the 2018 Hospital *Guidelines*.

Further Comments

Engineer: My two cents—CAHs need to have an AII room. The room does not need to have a shower or tub as it will be more for holding patients until they can be transferred.

Architect: Without a specific cross-reference to the requirements in Chapter 2.2 for an AII room in the emergency department, there aren't any requirements for an AII room in a CAH. This is why there is a shortage of these rooms to address COVID in rural areas during the coronavirus pandemic.

Owner: It is my belief that at the time of publication we did not intend to require a CAH to have an AII room as a minimum standard in the ED. Obviously, due to events this year [2020], this would be a good discussion for the HGRC Steering Committee.

Authority having jurisdiction (AHJ): Our state requires CAHs to have an AII room. The CAH chapter requires basic emergency service facilities and—while the basic emergency services section in Chapter 2.2 doesn't articulate an AII room—the ED section 2.2-3.1.4 expressly indicates it should be included for basic emergency services.

Infection preventionist: As the *Guidelines* requirements are written, you can argue that an AII room is not explicitly required in a CAH. However, as an infection preventionist, I believe one should be required.

The ED is a point of entry to the hospital for patients, some of whom arrive with rashes (chickenpox, disseminated zoster, measles), cough, fever, etc. and there needs to be a location where such patients can be isolated. This room can be used as a regular exam room; it doesn't need to be left open and unused. *Note:* This is my opinion. I expect some would argue that should a patient needing an AII room show up at your CAH you could put a mask on them and send them elsewhere. I prefer the safety of having an AII room to isolate them pending evaluation and transfer.

Architect: I think today we might come up with a slightly different answer than we did when this language was crafted. Looking back and deciphering my notes, it appears we discussed this and ultimately decided it would be up to the health care organization to determine if they could handle

patients who need isolation. Our concern was that not all CAHs would be set up to provide services for patients needing isolation and they would likely send them somewhere else. I also noted the ED might handle most of these patients until transport could happen (but I'm not sure we followed through with the isolation needs for the ED).

Given the pandemic, I think most would agree that at least one AII room should be provided and would be useful as a general patient care bed as well as a swing bed.

AHJ: Looking at the original query, I would say the inquirer's situation meets the FGI requirements. They have two AII rooms in acute care, which are readily accessible to basic emergency care. AII rooms are more expensive to build and utilize than typical care rooms, especially for CAHs. The *Guidelines* provides minimum requirements and the number of AII rooms should be guided by the safety risk assessment. The health care organization may determine they need more, but that is based on how they want to serve their community.

REQUEST

Guidelines *edition*: **2018 Hospital**

Guidelines *reference*: **2.5-2.2.2.2**

Question: Is it the intent of the *Guidelines* to increase the minimum clear floor area of the psychiatric patient bedroom to account for use of a platform bed when applying the glossary term for clear floor area? And, if so, what additional square footage needs to be added to the minimum clear floor area in Section 2.5-2.2.2.2 (General Psychiatric Patient Care Unit: Patient Room—Space requirements)?

Response: No, the platform bed is included in the calculation of clear floor area for a psychiatric patient bedroom.

Further Comments

Architect: I don't see a need to increase the clear floor area of the behavioral health patient room to account for the fixed bed. I don't believe additional area was the intent of Section 2.5-2.2.2.2 or the definition of clear floor area in the glossary.

Facility vice president: I agree the space under the bed should count as clear floor area and that is how our AHJ has been interpreting it as well.

Architect: Based on the current practice of fixing psych beds in place, I think a strict interpretation of the definition of clear floor area would increase the size of rooms and the cost of projects solely to address a definitional evolution, not a real problem. Let's let the space under the psych bed count toward clear floor area.

Former authority having jurisdiction: The clear floor area is not intended to be increased by the area of the bed. In the past when I reviewed plans for behavioral units with fixed furniture, I reviewed the plans as if the furniture was movable (really never considered it otherwise).

Architect: The intent of the *Guidelines* is not to increase the minimum clear floor area of the psychiatric patient bedroom. In most cases, the bedroom is used only for patient sleep; treatment occurs in common rooms.

Behavioral health consultant: There is no need to increase the clear floor area of the behavioral health patient room to account for the fixed bed. The space under the fixed bed should count in the calculation for clear floor area based on the significant differences in the function of the patient bedroom in a behavioral health patient care unit as compared to the patient room in a medical/surgical patient care unit. No clinical care occurs inside behavioral health patient bedrooms, which are designed for safety, sleeping, and hygiene.

REQUEST

Guidelines edition: **2018 Hospital**

Guidelines reference: **2.5-2.2.8.12**

Question: Chapter 2.5, Specific Requirements for Psychiatric Hospitals, requires a soiled workroom for the patient care [nursing] unit. Our client uses a linen service so would like to have a soiled holding room rather than a soiled workroom. The language in Section 2.5-2.2.8.12 (Soiled workroom) does not appear to permit this. Shouldn't use of a soiled holding room be permitted for a psychiatric hospital patient care unit, where the patients are not being treated for medical issues that would require a soiled workroom?

Response: The HGRC Interpretations Task Group agreed that provision of a soiled holding room rather than a soiled workroom should be an option permitted for a patient care unit in a psychiatric hospital. To accomplish this change, the group recommended adding to the subhead in Section 2.5-2.2.8.12 as shown below. This interpretation can be applied to earlier editions of the *Guidelines*.

2.5-2.2.8 Support Areas for the Psychiatric Patient Care Unit

2.5-2.2.8.12 Soiled workroom or soiled holding room. See Section 2.1- 2.8.12 (Soiled Workroom or Soiled Holding Room) for requirements.

[See cross-referenced common element text on the next page.]

CROSS-REFERENCED COMMON ELEMENT TEXT:

***2.1-2.8.12 Soiled Workroom or Soiled Holding Room**

2.1-2.8.12.1 General. Soiled workrooms and soiled holding rooms shall be separate from and have no direct connection with either clean workrooms or clean supply rooms.

2.1-2.8.12.2 Soiled workroom

(1) This room shall contain the following:

- (a) Hand-washing station
- (b) Flushing-rim clinical service sink with a bedpan-rinsing device or equivalent flushing-rim fixture
- (c) Work counter
- (d) Space for separate covered containers for waste and soiled linen

(2) Where a fluid management system is used, the following shall be provided:

- (a) Electrical and plumbing connections that meet manufacturer requirements
- (b) Space for the docking station(s)

2.1-2.8.12.3 Soiled holding room. This room shall contain the following:

- (1) Hand-washing station or hand sanitation station
- (2) Space for separate covered containers for waste and soiled linen

Further Comments

Behavioral health design expert: In behavioral health, either a soiled workroom or a soiled holding should be acceptable if the unit is being used for behavioral health patients without a medical co-morbidity.

Health care system design and construction VP: In our system, we don't use bedpans or need a fluid management system, so a soiled holding room where both red bag hazardous waste and/or soiled linen can be placed is acceptable and generally what we build.

Nurse: Provision of a soiled holding room should be permitted if a soiled workroom is not required by the functional program.

Health care project manager: I find that freestanding behavioral health facilities rarely use the soiled workrooms. When picking up linens or waste they use a cart. If the cart is lockable once material has been deposited, a soiled room is not used. If the cart is not locked and materials can be removed from it, a locked soiled holding room is mandatory because an event could arise when staff are picking up linens or wastes, causing them to leave the linens or trash open to patients who might remove something that presents a potential risk on the unit.

A soiled holding room is okay in lieu of a soiled workroom based on the acuity of the population. On a general hospital-based psych unit where bedpans may be required, a workroom with clinical sink is necessary. In a freestanding behavioral health facility where patient acuity does not require bedpans, a soiled holding room is acceptable.

REQUEST

Guidelines *edition*: **2018 Hospital**

Guidelines *reference*: **2.5-7.2.2.5 (2)**

Question: Does Section 2.5-7.2.2.5 (2) apply to both interior and exterior windows in patient care areas in a behavioral health unit or facility?

The testing method indicated in seems to apply only to exterior assemblies, but we are asking about an interior borrowed light glazing assembly between two interior spaces. This assembly is not a unit boundary either, so no risk for elopement.

Response: Section 2.5-7.2.2.5 (2) applies only to exterior windows. In the text shown below from the 2018 *Guidelines for Design and Construction of Hospitals* is new language shown in green that has been added to the 2022 edition to clarify this issue.

*2.5-7.2.2.5 Windows

- (1) Windows located in patient care areas or areas used by patients, including the exterior pane of windows accessible by patients from outdoor courtyards, shall be designed to limit the opportunities for patients to seriously harm themselves by breaking the windows and using pieces of the broken glazing material to inflict harm to themselves or others.
 - (a) All glazing (both interior and exterior), borrowed lights, and glass mirrors shall be fabricated with polycarbonate or laminate on the inside of the glazing or with any glazing that meets or exceeds the requirements for Class 1.4 per ASTM F1233: Standard Test Method for Security Glazing Material and Systems.
 - *(b) Use of tempered glass for borrowed lights shall be permitted. (2) To prevent opportunities for suicide, self-harm, and escape, the entire window system and the anchorage for windows and window assemblies, including frames, glazing, and hinges and locking devices for operable windows, shall meet the following requirements:
- (2) Exterior windows located in patient care areas or areas used by patients. To prevent opportunities for suicide, self-harm, and escape, the entire window system and the anchorage for windows and window assemblies, including frames, glazing, and hinges and locking devices for operable windows, shall meet the following requirements:
 - (a) Designed to resist impact loads of 2,000 footpounds applied from the inside
 - (b) Tested in accordance with AAMA 501.8: Standard Test Method for Determination of Resistance to Human Impact of Window Systems Intended for Use in Psychiatric Applications
- (3) A minimum net glazed area of no less than 8 percent of the floor area of each social and dining space shall be provided.

Further Comments

Authority having jurisdiction: The words used in Section 2.5-7.2.2.5 (1)—located in patient care areas, areas used by, accessible to patients—clearly apply to both interior and exterior windows. The language in 2.5-7.2.2.5 (2)—escape, window system, locking devices for operable windows—only makes sense when applied to exterior windows, not to a glazed panel between two rooms or areas of the same care unit.

Health care architect with academic medical center: The *Guidelines* has no performance requirement for impact resistance of interior partitions. Section 2.5-7.2.2.5 (1)(b) specifically permits use of tempered glass for borrowed lights but does not indicate any specific impact requirements for the borrowed light assembly.

REQUEST

Guidelines *edition*: **2018 Hospital**

Guidelines *references*: **2.8-8.2.1 and 2.8-8.2.1.2**

Question: Is it the intent of sections 2.8-8.2.1 (HVAC Systems—General) and 2.8-8.2.1.2 (Class 1 units) in Chapter 2.8, Specific Requirements for Mobile/Transportable Medical Units, to require Class 1 mobile units to meet all the standards of ANSI/ASHRAE/ASHE Standard 170: *Ventilation of Health Care Facilities*?

Response: ASHRAE 170 is not required to be applied to Class 1 mobile units. As a result of this query, the revisions of the 2018 text shown below in green have been made to the 2022 edition of the *Hospital Guidelines* as well as the 2022 *Outpatient Guidelines* in Chapter 2.13.

2.8-8.2 Heating, Ventilation, and Air-Conditioning (HVAC) Systems

2.8-8.2.1 General

~~HVAC systems shall comply with the requirements in Section 2.1-8.2 (HVAC Systems) as modified in this section:~~

2.8-8.2.1.1 HVAC equipment, ductwork, and related equipment shall be installed in accordance with NFPA 90A: *Standard for the Installation of Air-Conditioning and Ventilating Systems*.

2.8-8.2.1.2 Class 1 units. Mobile/transportable medical units that are limited to provision of noninvasive diagnostic and treatment services without use of anesthetics shall meet the following mechanical requirements:

(1) Mechanical system design

- (a) A minimum indoor winter design capacity temperature of 75oF (24oC) shall be set for all patient areas.
- (b) Controls shall be provided for adjusting the temperature as appropriate for patient activities and comfort.

(2) Ventilation and space-conditioning requirements. All occupied areas shall be ventilated by mechanical means.

~~(3) Where procedures or patients require positive or negative ventilation for infection prevention, the medical unit shall meet the ventilation requirements in Part 3 (ANSI/ASHRAE/ASHE 170: *Ventilation of Health Care Facilities*).~~

~~(4)~~ (3) HVAC ductwork. Air-handling duct systems shall meet the requirements of NFPA 90A: *Standard for the Installation of Air-Conditioning and Ventilating Systems*.

Further Comments

Health care system facility director: After hearty debate, the Hospital Document Group of the FGI Health Guidelines Revision Committee did not include the mechanical requirements of ASHRAE 170 as a minimum standard for Class 1 mobile units. The intent was for the mechanical requirements for Class 1 to control the space for patient and staff comfort as this class of unit is used for diagnostic work rather than interventional procedures.

Health care architect and codes expert: Class 1 mobile units should not be used for interventional procedures.