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OAHE Spring Conference & Trade Show

OSDH Chapter 667 vs. FGI 2014 - A Comparison

April 19, 2017

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AGENDA

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INTRODUCTION

2
FGI 2014 – BASIC ORGANIZATION

3
SIGNIFICANT DEPARTMENTAL REVIEWS
- SURGERY
- NURSING UNITS
- IMAGING
- EMERGENCY
- MISCELLANEOUS NOTES

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Dwayne Robinett, AIA is the Managing Director and Market Leader for HFG Architecture's Oklahoma Region. Dwayne is responsible for the entire office operations which includes leading strategic direction, staff oversight, business development efforts, tracking new and emerging trends, and strengthening industry partnerships and affiliations. He holds a degree in architecture and a minor in business from the University of Oklahoma and brings over 15 years of architectural and business experience to our client's projects.

His experience includes an array of healthcare assignments such as specialty and general care clinics, imaging suites, laboratories, pharmacies, and senior living facilities, among many others. Dwayne recently led the planning, design and construction administration effort for a $35 million, 135,000 square foot cancer treatment facility housing infusion, radiation therapy, medical oncology, a breast center, laboratory, pharmacy, cancer resource center, lymphedema clinic, multi-disciplinary clinic, administration, a café, and a boutique.

Dwayne has worked for various clients including the University of Oklahoma, Stillwater Medical Center, Mercy Hospital Systems, McAlester Regional Medical Center, and Hutchinson Regional Medical Center in Hutchinson, Kansas.

Mr. Robinett is NCARB and LEED Accredited. He is a member of the American Institute of Architects, the American Society of Healthcare Engineers, and the Oklahoma Association of Healthcare Engineers.

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About Health Facilities Group

Caring for people is at our core. You will experience this through our interactive design process where your thoughts and concerns are heard and help guide the process. We are here to enhance your ability to serve others, to help them heal, and to improve their lives.

History

- HFG was established in 1994 with a mission to improve health care through architecture.
- Today, HFG has offices in Wichita, Tulsa, Kansas City, Omaha, and Des Moines. We've served more than 100 health care institutions, and successfully designed more than 1,000 projects.

Accolades

- HFG is widely recognized as one of the premier health care designers in the Midwest. We have been featured in various professional publications, and have won awards for architectural and interior design.
- HFG designed the nation's first and only LEED Platinum critical access hospital, which garnered nation-wide attention.

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REQUISITE HUMOR

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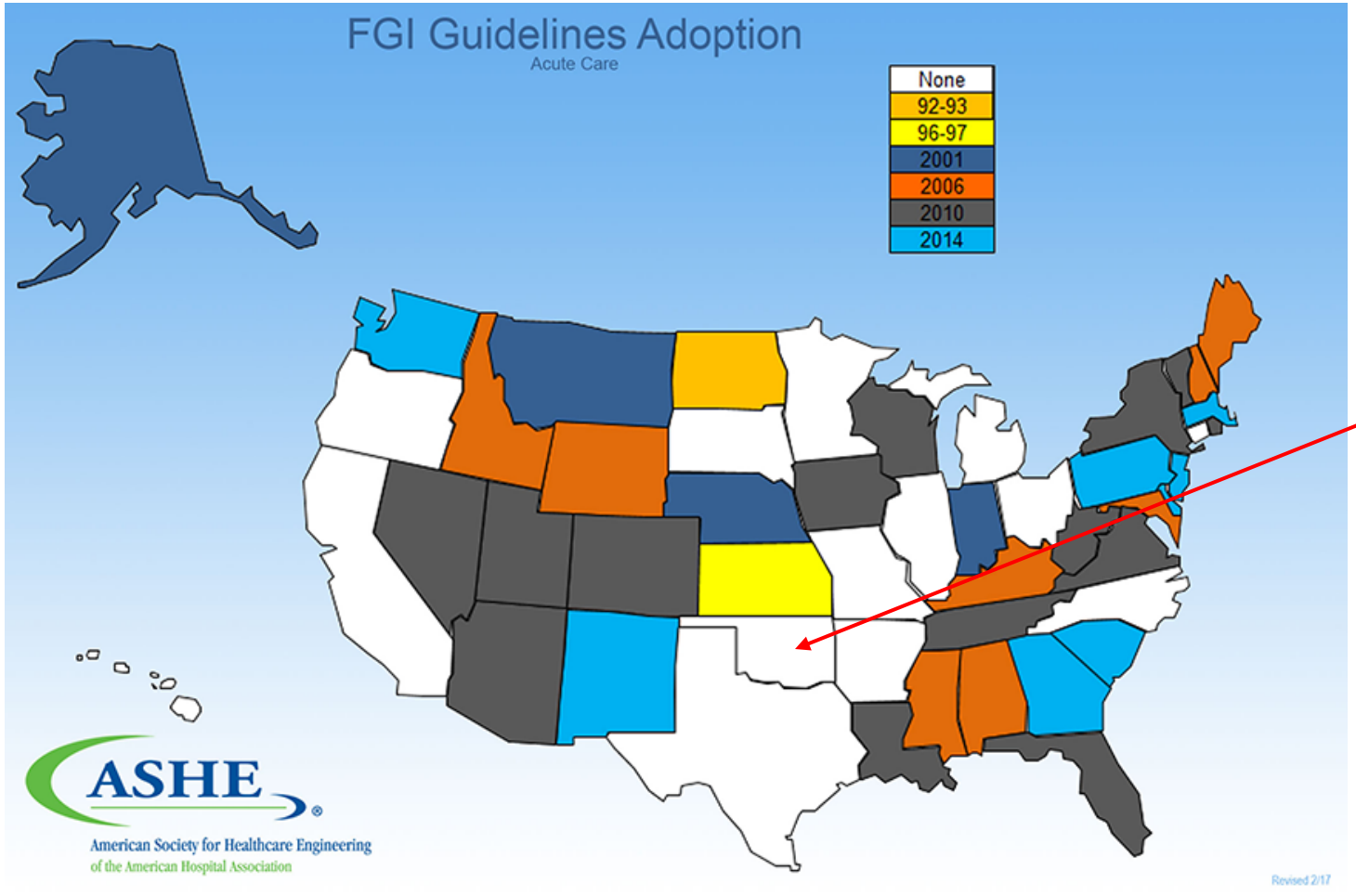

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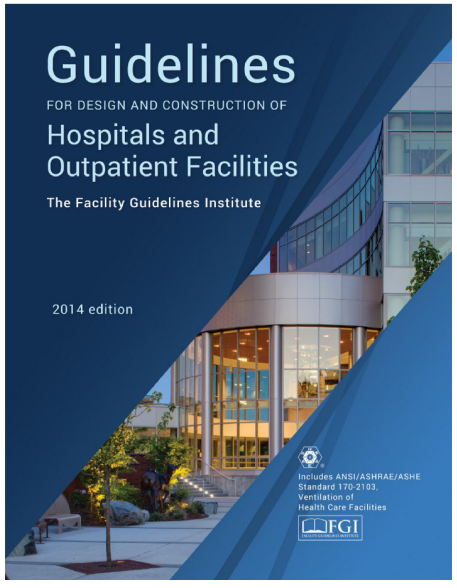
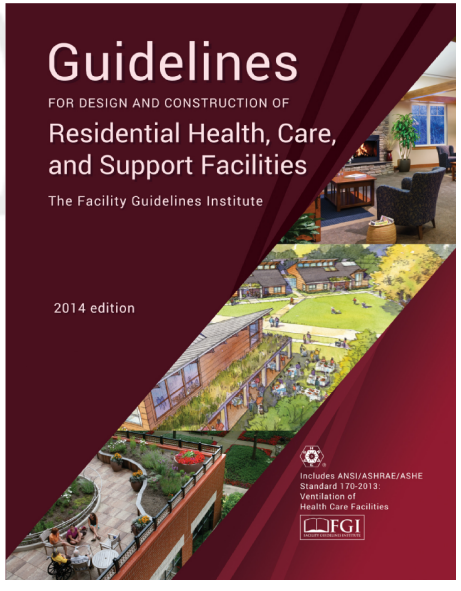


Guidelines for Design and Construction of Hospitals and Outpatient Facilities

Provides standards for designing and constructing hospitals and outpatient facilities.



Guidelines for Design and Construction of Residential Health, Care, and Support Facilities

Provides standards for facilities in which residents or clients receive long-term care or support.

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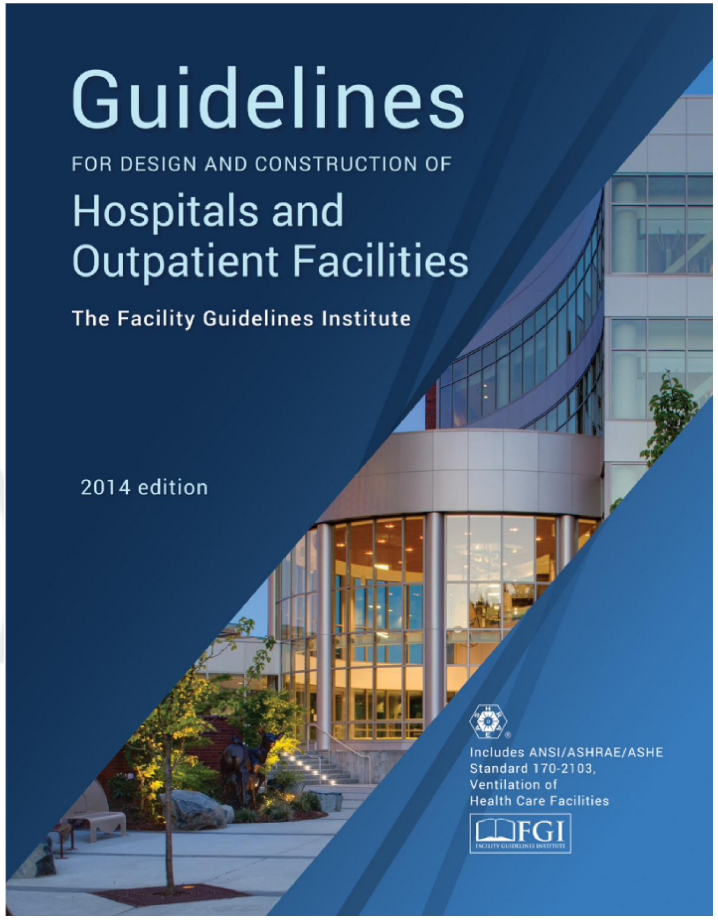

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PART 1

PART 1 contains chapters that address considerations applicable to all hospitals and outpatient facilities, except as noted or modified in specific facility chapters in the remaining parts.

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PART 1

1. Functional program
2. Safety Risk Assessments
    1. ICRA
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3. Acoustics
4. Bariatric considerations
5. Renovation/Phasing
6. Commissioning
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7. Utilities
8. Site Design
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PART 1

Functional Program

- 1.2-2.1.1.3 Activities such as equipment replacement, fire safety upgrades, or minor renovations that will not change the facility's function or character shall not require a functional program.

- 1.2-2.1.3.1 The names for spaces and departments used in the functional program shall be consistent with those used in the *Guidelines for Design and Construction of Hospitals and Outpatient Facilities*. If acronyms are used, they shall be defined clearly.

- 1.2-2.2.1 Functional Program Executive Summary - An executive summary of the key elements of the functional program shall be provided and, at minimum, shall include the information outlined in Section 1.2-2.2 (Functional Program Content) in a project narrative.

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PART 1

Safety Risk Assessments

- 1.2-3.1.3 SRA Responsibility and Scope

  1.2-3.1.3.1 The safety risk assessment shall be initiated and managed by the governing body during the planning phase of the project and shall continue to evolve with additional levels of detail as needed to support the creation of a safe environment **throughout the design, construction, and commissioning phases of a project**.

- *1.2-3.1.6 SRA Report

  After completing the SRA process, the governing body shall provide the following information and recommendations, which shall be incorporated into the planning and design documentation…

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PART 1

Table 1.2-1

Safety Risk Assessment (SRA) Components

Assessment	Facility Type/Area	Project Scope	Guidelines Reference
Infection control risk (ICRA)	All	1. New construction 2. All renovations	1.2-3.2
Patient handling and movement (PHAMA)	Areas where patient handling, transport, transfer, and movement occur	1. New construction 2. Major renovation and renovations changing functional use of space 3. Minor and minimal renovations where patient handling occurs	1.2-3.3
Fall prevention	Any area to which a patient or family member has access	1. New construction 2. Major renovation and renovations changing functional use of space 3. Minor and minimal renovations where patient falls may occur	1.2-3.4
Medication safety	Medication safety zones	1. New construction 2. Major renovation and renovations changing functional use of space 3. Minor and minimal renovations where medication preparation, processing, and distribution occurs	1.2-3.5
Behavioral and mental health risk	Any area where behavioral health patient care is provided	1. New construction 2. Major renovation and renovations changing functional use of space to include care of behavioral health patients 3. Minor and minimal renovations where behavioral health patient treatment occurs	1.2-3.6
Patient immobility	Inpatient locations	1. New construction 2. Major renovation and renovations changing functional use of space to inpatient use 3. Minor and minimal renovations where inpatient care occurs	1.2-3.7
Security risk	All	1. New construction 2. All renovations	1.2-3.8

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*(1) PHAMA results and recommendations shall be specific to each clinical unit, procedure area, diagnostic area, and any other area where patient handling and movement occur.
(2) The findings and recommendations of the PHAMA shall include consideration of both bariatric and non-bariatric patient care requirements.

1.2-3.3.2 Patient Handling and Movement Elements for the Safety Risk Assessment

1.2-3.3.2.1 Phase 1: Patient handling and movement needs assessment. Evaluation of patient handling and movement needs shall include at minimum the following considerations:

*(1) Patient handling, movement, and mobility equipment recommendations, based on the following:
*(a) Characteristics of projected patient populations
(b) Types of high-risk patient handling and movement tasks to be performed and accommodated
(c) Knowledge of specific technology to enable physical activity by patients and reduce risk for each patient handling and movement task
(d) Architectural factors that interfere with use of patient handling equipment or impede mobility
*(2) Types of patient handling and movement equipment to be used (manual or power-assisted fixed ceiling or wall-mounted lifts, manual or power-assisted portable/floor-mounted lifts, electric height-adjustable beds, or a combination thereof)
*(3) Quantity of each type of patient handling and movement equipment needed for each area under consideration
*(4) Required weight-carrying capacities
*(5) Locations/rooms/areas where patient handling, movement, and mobility equipment will be used, with installation requirements (if fixed) and storage requirements

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1.2-3.3.2.2 Phase 2: Design considerations. The impact of patient handling and movement needs on building design shall be addressed in the PHAMA, including consideration of both bariatric and non-bariatric patient care needs. These design considerations shall incorporate results from the Phase 1 assessment and shall include, at minimum, the following:

(1) Structural considerations to accommodate current and/or future use of fixed equipment that supports patient handling and movement

*(2) Electrical and mechanical considerations for current and future use and/or installation of patient handling and movement equipment and associated storage and charging areas

*(3) Adequate space for provision of patient care and for unhindered maneuvering of patient handling and movement equipment

*(4) Destination points for patient ambulation, transfers, and transport

*(5) Sizes and types of door openings through which patient handling and movement equipment and accompanying staff must pass

*(6) Types of floor surfaces and transitions needed to facilitate safe and effective use of patient handling and movement equipment

(7) Coordination of patient handling and movement equipment installations with building mechanical, electrical, communication, and life safety systems

*(8) Storage space requirements and locations available or to be provided

(9) Impact of the installation and use of patient handling and movement equipment on environmental characteristics of the environment of care

*(10) Impact of the installation and use of patient handling and movement equipment on the aesthetics of the patient care space

*(11) Infection control risk mitigation requirements

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PART 1

Commissioning

- *1.2-7.2.1 Development of the Owner's Project Requirements (OPR)

  The owner shall develop the OPR, which identifies building systems and elements that will be affected by the project scope and defines performance, operations, maintenance, longevity, energy efficiency, and other parameters required to meet the owners expectations.

- 1.2-7.2.2 Preparation of the Basis of Design (BOD)

  In response to the **OPR**, the design team shall prepare a BOD narrative describing the design intent.

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PART 1

Commissioning

- *.2-7.2.5 Preparation of the Commissioning Report

  A **commissioning report** shall be prepared and presented to the owner to formally document the following:

  - 1.2-7.2.5.1 Performance of the physical environment elements
  - 1.2-7.2.5.2 Performance issues identified
  - 1.2-7.2.5.3 Mitigation or resolution of performance issues
  - 1.2-7.2.5.4 Maintenance staff training to achieve operational sustainability
  - 1.2-7.2.5.5 Compliance with the OPR and the BOD

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PART 1

Multidisciplinary Team

- Part of the Commissioning Process
- 1.2-1.2.1 At minimum, the multidisciplinary team shall include administrators, clinicians, infection preventionists, architects and other design professionals, facility managers, safety officers, security managers, users of equipment, and support staff relevant to the areas affected by the project as well as those with knowledge of the organizations functional goal for the project.

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Medication Work Area

Another significant new change in the 2014 Guidelines is the addition of medication safety zone requirements… The 2014 edition provides a framework for a medication safety risk assessment performed during project planning and minimum design requirements (with supporting appendix language) to guide design and construction of medication safety zones across the continuum of care. The goal of these new requirements is to support safe medication use systems and reduce medication errors.

> **Medication safety zone:** A critical area where medications are prescribed, orders are entered into a computer or transcribed onto paper documents, or medications are prepared or administered. (Definition from the US. Pharmacopeia and National formulary, or USP-XF). Also see Zone.

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PART 2

Part 2 addresses facilities where inpatient care is provided, with chapters devoted to general hospitals, critical access hospitals, psychiatric hospitals, rehabilitation facilities, and children's hospitals.

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PART 2

2.1-1.1.1 This chapter contains elements that are common to most types of hospitals. The elements shall be required in a facility when referenced in a specific hospital facility chapter in Part 2.

2.1-1.1.2 Additional specific requirements are located in the facility chapters of Part 2 (facility chapters are listed below). Consult the facility chapters to determine if elements in this chapter are required.

- General hospitals (Chapter 2.2)
- Freestanding emergency facilities (Chapter 2.3) (NEW)
- Critical access hospitals (Chapter 2.4) (NEW)
- Psychiatric hospitals (Chapter 2.5)
- Rehabilitation hospitals and other facilities (Chapter 2.6)
- Children's hospitals (Chapter 2.7) (NEW)

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PART 3

Part 3 addresses facilities where outpatient care is provided.

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PART 3

By far the most significant change in outpatient facility requirements is the revision to requirements for operating rooms and support areas in surgical facilities. **New definitions have been provided in the glossary or invasive procedures, procedure room, and the two areas that make up the surgical suite semi-restricted and restricted areas**, these definitions are the foundation for the changes in the body of the document, especially the distinction between an operating room and a procedure room in the ambulatory surgery setting, the decision was made to move away from the outdated Class A-G levels based on anesthesia use. Instead, a one size minimum requirement was developed for an outpatient operating room (formerly the Class B and Class C rooms). The minimum size for an ambulatory OR was calculated to be 250 square feet, and recommendations for ORs that may need to be larger are included in the appendix. The former Class A operating room is now termed a procedure room, which is a room designated for the performance of procedures that are not defined as invasive and may be performed outside the restricted area of a surgical suite but may require use of sterile instruments or supplies.

Other notable changes in Part 3 include:

- Revised chapter on primary care centers
- Modified cancer treatment area size and configuration requirements
- Chapter 3.8 has been changed to focus on office-based procedure and operating rooms
- New chapter on dental facilities

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PART 3

The outpatient facilities described in Part 3 of *the Guidelines* are used primarily by patients who are able to travel or be transported to the facility for treatment, including those confined to wheelchairs. These facilities may be an outpatient unit in a hospital, a freestanding facility, or an outpatient facility in a multiple-use building containing an ambulatory health care facility as defined in the *NFPA 101: Life Safety Code* occupancy chapters.

3.1-1.1.1 This chapter contains elements that are common to most types of outpatient facilities. The elements shall be required in a facility when referenced in a specific outpatient facility chapter in Part 3…

3.1-1.1.2 Additional specific requirements are located in the facility chapters of Part 3 (facility chapters are listed below). Consult the facility chapters to determine if elements in this chapter are required.

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PART 3

- Primary care facilities (Chapter 3.2)
- Freestanding outpatient diagnostic and treatment facilities (Chapter 3.3)
- Freestanding birth centers (Chapter 3.4) (NEW)
- Freestanding urgent care facilities (Chapter 3.5)
- Freestanding cancer treatment facilities (Chapter 3.6)
- Outpatient surgical facilities (Chapter 3.7)
- Office-based procedure and operating rooms (Chapter 3.8)
- Endoscopy facilities (Chapter 3.9)
- Renal dialysis centers (Chapter 3.10)
- Outpatient psychiatric centers (Chapter 3.11)
- Outpatient rehabilitation therapy facilities (Chapter 3.12)
- Mobile, transportable, and relocatable units (Chapter 3.13) (NEW)
- Dental facilities (Chapter 3.14) (NEW)

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PART 3

Part 4 contains the full text of the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) Standard 170-2013: *Ventilation of Health Care Facilities*.

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PART 4

The 2013 edition of ANSI/ASHRAE/ASHE Standard 170: *Ventilation of Health Care Facilities*—including all issued addenda—is incorporated into the 2014 edition of the Facility Guidelines Institute Guidelines for Design and Construction of Hospitals and Outpatient Facilities with the exception of Section 4.1 (Compliance Requirements) and Section 4.2 (Administrative Requirements). For requirements on compliance, see Chapter 1.1 in the Guidelines. All addenda issued to the 2008 edition have been included in Standard 170-2013.

In the case of a conflict between the language in Standard 170-2013 and the text of the Guidelines, **the Guidelines language shall have priority**. In the case of a conflict between an addendum to Standard 170 and the text of *the Guidelines*, **the addendum language shall have priority**. The definitions in Section 3 of Standard 170 apply only to Part 4 of *the Guidelines*. For definitions that apply to Parts 1 through 3 of the document, see the Guidelines glossary at the front of the book.

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Code Reference Updates

With a few exceptions, the *Guidelines* do not reference a specific release when referring to codes, rather they only state the standard itself.

CMS does not reference the *Guidelines*, only the NFPA. The *Guidelines* are not code documents, however CMS and most accreditation organizations expect FGI to be applied unless applicable state or local standards are more restrictive.

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- ADA Standards for Accessible Design - DOJ / 2010
- ASCE/SEI 7 Minimum Design Loads for Buildings and Other Structures, Third Printing / 2010
- ASHRAE Standard 90.1-2010 Energy Standard for Buildings Except Low-Rise Residential Buildings (ANSI Approved; IESNA Co-sponsored) - (IP Edition) / 2010
- ASHRAE-170-2013: ANSI/ASHRAE/ASHE Standard 170-2013 Ventilation of Health Care Facilities / 2013
- ASHRAE Guideline 1.1 HVAC&R Technical Requirements for The Commissioning Process / 2007
- 2007 ASHRAE Handbook HVAC Applications (I-P Edition) / 2007
- ASHRAE Thermal Guidelines for Data Processing Environments, 3rd Edition / 2012
- ASME A17.1 Safety Code for Elevators and Escalators / 2010
- ASME A17.3 Safety Code for Existing Elevators and Escalators / 2011
- D1193-06: D1193-06 Standard Specification for Reagent Water / 2006
- E1130-08: E1130-08 Standard Test Method for Objective Measurement of Speech Privacy in Open Plan Spaces Using Articulation Index / 2008
- F1233-08: F1233-08 Standard Test Method for Security Glazing Materials And Systems / 2008
- AWWA Manual M14: Recommended Practice For Backflow Prevention & Cross-Connection Control, Third Edition / 2004
- FEMA P-750 - NEHRP Recommended Seismic Provisions for New Buildings and Other Structures. 2009 Edition / 2009
- International Green Construction Code - IgCC / 2012
- ICC A117.1 Accessible and Usable Buildings and Facilities / 2009
- ANSI / IESNA RP-28 Lighting and the Visual Environment for Senior Living / 2007
- ANSI / IESNA RP-29 Lighting for Hospitals and Health Care Facilities / 2006
- International Plumbing Code / 2012
- NFPA 70: National Electrical Code (NEC) / 2014
- NFPA 72: National Fire Alarm and Signaling Code / 2013
- NFPA 82: Standard on Incinerators and Waste and Linen Handling Systems and Equipment / 2009
- NFPA 90A: Standard for the Installation of Air-Conditioning and Ventilating Systems / 2012
- **NFPA 99: Health Care Facilities Code / 2012**
- **NFPA 101: Life Safety Code / 2012**
- NFPA 110: Standard for Emergency and Standby Power Systems / 2013
- NFPA 255: Standard Method of Test of Surface Burning Characteristics of Building Materials / 2006
- NFPA 801: Standard for Fire Protection for Facilities Handling Radioactive Materials / 2014
- Uniform Federal Accessibility Standards / 1988

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SURGERY

- The surgical suite has two designated areas: **semi-restricted and restricted.**
- Location of scrub stations in surgical suites next to the entrance to the operating room required, but two scrub positions alone station can serve two operating rooms as long as the station is next to the entrance of each.
- No requirement for a sub-sterile room between every two operating rooms
- Revised facility requirements for sterilization processes conducted in the surgical suite
- A minimum of 1.5 PACU stations per operating room
- Pre- and post-op space and clearance requirements modified for consistency
- No requirement for a door to a staff changing area or lounge to open directly into the semi-restricted area of the surgical suite. The new requirement states only that a staff changing area and lounge must be provided, which allows these functions to be shared with another department.

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SURGERY

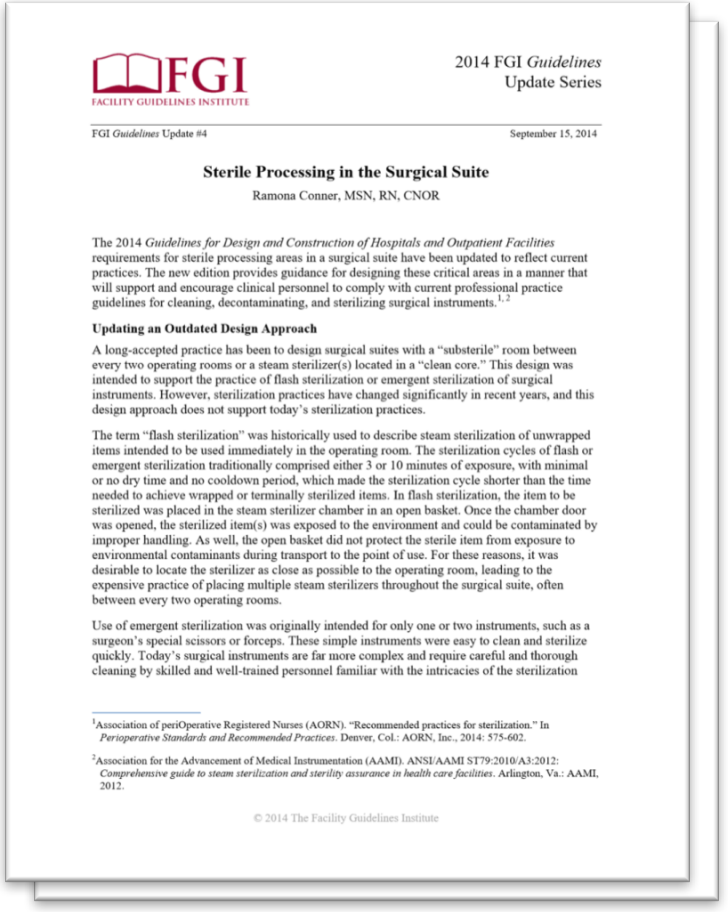
Sterile Processing in the Surgical Suite

Ramona Conner, MSN, RN, CNOR

The 2014 *Guidelines for Design and Construction of Hospitals and Outpatient Facilities* requirements for sterile processing areas in a surgical suite have been updated to reflect current practices…

Updating an Outdated Design Approach

A long-accepted practice has been to design surgical suites with a “substerile” room between every two operating rooms or a steam sterilizer(s) located in a “clean core.”



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2014 FGI *Guidelines*
Update Series

FGI *Guidelines* Update #4 September 15, 2014

Sterile Processing in the Surgical Suite

Ramona Conner, MSN, RN, CNOR

The 2014 *Guidelines for Design and Construction of Hospitals and Outpatient Facilities* requirements for sterile processing areas in a surgical suite have been updated to reflect current practices. The new edition provides guidance for designing these critical areas in a manner that will support and encourage clinical personnel to comply with current professional practice guidelines for cleaning, decontaminating, and sterilizing surgical instruments.[1,2]

Updating an Outdated Design Approach

A long-accepted practice has been to design surgical suites with a “substerile” room between every two operating rooms or a steam sterilizer(s) located in a “clean core.” This design was intended to support the practice of flash sterilization or emergent sterilization of surgical instruments. However, sterilization practices have changed significantly in recent years, and this design approach does not support today’s sterilization practices.

The term “flash sterilization” was historically used to describe steam sterilization of unwrapped items intended to be used immediately in the operating room. The sterilization cycles of flash or emergent sterilization traditionally comprised either 3 or 10 minutes of exposure, with minimal or no dry time and no cooldown period, which made the sterilization cycle shorter than the time needed to achieve wrapped or terminally sterilized items. In flash sterilization, the item to be sterilized was placed in the steam sterilizer chamber in an open basket. Once the chamber door was opened, the sterilized item(s) was exposed to the environment and could be contaminated by improper handling. As well, the open basket did not protect the sterile item from exposure to environmental contaminants during transport to the point of use. For these reasons, it was desirable to locate the sterilizer as close as possible to the operating room, leading to the expensive practice of placing multiple steam sterilizers throughout the surgical suite, often between every two operating rooms.

Use of emergent sterilization was originally intended for only one or two instruments, such as a surgeon’s special scissors or forceps. These simple instruments were easy to clean and sterilize quickly. Today’s surgical instruments are far more complex and require careful and thorough cleaning by skilled and well-trained personnel familiar with the intricacies of the sterilization

[1]Association of periOperative Registered Nurses (AORN). “Recommended practices for sterilization.” In *Perioperative Standards and Recommended Practices*. Denver, Col.: AORN, Inc., 2014: 575-602.

[2]Association for the Advancement of Medical Instrumentation (AAMI). ANSI/AAMI ST79:2010/A3:2012: *Comprehensive guide to steam sterilization and sterility assurance in health care facilities*. Arlington, Va.: AAMI, 2012.

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SURGERY

- "**Invasive procedure**" is a broad term often used to describe procedures from a simple injection to a major surgical operation.

- For the purposes of the Guidelines…an **invasive procedure** is…a procedure that penetrates the protective surfaces of a patient's body (e.g., skin or mucous membranes), is performed in an aseptic surgical field, generally requires entry into a body cavity, and may involve insertion of an indwelling foreign body.

- Such procedures must be performed in an operating room suitable to the technical requirements of the procedure with consideration of infection prevention and anesthetic risks and goals.

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- A **procedure room** is defined as a room for the performance of procedures that do not require an aseptic field but may require use of sterile instruments or supplies. Procedure rooms are considered unrestricted areas. Local anesthesia and minimal and moderate sedation may be administered in a procedure room, but anesthetic agents used in procedure rooms must not require special ventilation or scavenging equipment.

- An **operating room (OR)** is defined as a room in the surgical suite that meets the requirements of a restricted area and is designated and equipped for performing surgical operations or other invasive procedures that require an aseptic field…

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- A **restricted area** in a surgical suite is a designated space that can only be accessed through a semi-restricted area in order to achieve a high level of asepsis control. Traffic in the restricted area is limited to authorized personnel and patients, and personnel are required to wear surgical attire and cover head and facial hair. Masks are required where open sterile supplies or scrubbed persons may be located.

- A **semi-restricted area** comprises the peripheral support areas surrounding the restricted area of a surgical suite. These support areas include facilities such as storage areas for clean and sterile supplies, sterile processing rooms, work areas for storage and processing of instruments, scrub sink areas, corridors leading to the restricted area, and pump rooms.

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SURGERY

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667 – OPERATING ROOMS

Surgical Facilities	
Operating Rooms	
Square Footage	Varies
General Surgery	400 sf for New Construction w/ 20 feet clear dimension; 360 sf for Renovation w/ 18 feet clear dimension
Cystoscopic/endo-urologic	350 sf for New Construction; 250 sf for Renovation
Cardiovascular/neuro	400 sf
Orthopedics	600 sf
ACPH (outside air)	3 (OR)
ACPH	15 (OR)
RH	30-60
Design Temp	68-73
O2	2 outlets
Vacuum	3 outlets

FGI – OPERATING ROOMS

Surgical Facilities	
Operating Rooms	
Space Requirements	Varies
General Surgery	400 sf for New Construction w/ 20 feet clear dimension; 360 sf for Renovation w/ 18 feet clear dimension
Cesarean	440 sf w/ 16 ft clear dimension
O2	2 outlets
Vacuum	4 outlets
Medical Air	1 outlet
WAGD	1 outlet
Image-guided Procedures & Procedures with large equipment or surgical teams	600 sf for New Construction w/ 20 ft clear; 500 sf for Renovation w/ 20 ft clear.
Hybrid OR	New Construction w/ 24 ft clear; Renovation w/ 22 ft clear
Hybrid iMRI OR	4 ft clear on all sides of the gantry or bed exclusive of the door swing
Emergency Com System	Required
Medical Air	1 outlet
O2	2 outlets
Vacuum	5 outlets
WAGD	1 outlet

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667 – PRE-OP

FGI – PRE-OP

Pre-Op	Permitted to be part of Phase II recovery if Phase II req's are met. May serve as overflow for PACU/ Phase I Recovery, or patient holding when those req's are met.
Space Requirements	Varies
PT Bay	60 sf per patient; 5 ft btwn beds, 4 ft btwn beds & walls, and 3 ft btwn foot of bed & curtain; 8 ft clear aisle exclusive of foot of bed clearance
PT Cubicle	80 sf per station w/ 3 ft clear dimension
Single-bed Room	100 sf per room w/ 3 ft clear dimension
Nurse Call	Required

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667 – PACU

PACU	80 sf PLUS 4' to walls/5' btwn beds
Medication Station	Required
Handwashing Facilities	Required
Nurse station w/charting	Required
Stretcher Storage	Required
Supplies Storage	Required
Staff Toilet near working area	Required
Handwashing sinks	1 per 4 beds
O2	1 Outlet/Bed
Med Air	3 Outlets/Bed
Vacuum	1 Outlet/Bed
Clinical Sink	Required Directly Adjacent to PACU

FGI – PACU

PACU (Phase I Recovery)	
Adjacencies	In new construction at least one door shall provide access directly from the surgical suite without crossing unrestricted corridors
Number of stations	1.5 per OR
Space Requirements	80 sf per bay/cubicle; 5 ft btwn beds, 4 ft btwn beds & walls, and 3 ft btwn foot of bed & curtain
Stretcher Storage	Required
Nurse Call	Required
O2	2/bed
Med Air	1/bed
Vacuum	3/bed

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667 – PHASE II RECOVERY

Phase II Recovery	50 sf min.; 4' at chairs; cub. Curtains
O2	1 Outlet/Bed
Vacuum	3 Outlets/Bed
Patient Toilet	Required
Staff Toilet near working area	Required
Handwashing Stations	1 per 4 chairs
Nurse station w/charting	required in room
Clinical Sink	required in room
Bedpan Cleaning	required in room

FGI – PHASE II RECOVERY

Phase II Recovery	Required when outpatient surgeries are part of the surgical suite, & when outpatients receive sedation
Adjacencies	Permitted to be part of Pre-Op when req's are met; In new construction at least 1 Phase II door shall access PACU without crossing a public corridor; Permitted to be located in PACU if req's are met
Space Requirements	
Patient Bay	60 sf per patient; 4 ft clear btwn sides of pt beds, 3 ft clear btwn pt beds & obstructions, and 3 ft clear at the foot of pt beds
Patient Cubicle	80 sf per station w/ 4 ft clear btwn sides of pt beds, 3 ft clear btwn pt beds & fixed obstructions, and 3 ft clear at the foot of pt beds
Single-bed Room	100 sf per room w/ 4 ft clear btwn sides of pt beds, 3 ft clear btwn pt beds & obstructions, and 3 ft clear at the foot of pt beds

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667 – PHASE II RECOVERY

Phase II Recovery	50 sf min.; 4' at chairs; cub. Curtains
O2	1 Outlet/Bed
Vacuum	3 Outlets/Bed
Patient Toilet	Required
Staff Toilet near working area	Required
Handwashing Stations	1 per 4 chairs
Nurse station w/charting	required in room
Clinical Sink	required in room
Bedpan Cleaning	required in room

FGI – PHASE II RECOVERY

Patient Toilet(s)	1 per 8 or fewer patient stations; located directly adjacent Phase II Recovery
Nourishment Area	Required
Nurse Call	Required
O2	1/bed
Vacuum	3/bed
Airborne ISO Room	If Required by ICRA
O2	1/bed
Vacuum	1/bed
Pre & Post -Op Support Areas	
Nurse Station	Required in Post-Op areas
Documentation Area	Required
Clinical Sink	Required in Post-Op areas
Bedpan Cleaning	Provisions Req'd in Post-Op
Med Safety Zone	Required in Post-Op areas
Ice Maker(s)	Required; cannot be in semi-restricted areas; Permitted in Pre or Post -Op areas
Equipment & Supply Storage	Required in Post-Op areas
Patient Change & Toilet	Required unless private holding rooms or cubicles are used

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667 – PHASE II RECOVERY

Phase II Recovery	50 sf min.; 4' at chairs; cub. Curtains
O2	1 Outlet/Bed
Vacuum	3 Outlets/Bed
Patient Toilet	Required
Staff Toilet near working area	Required
Handwashing Stations	1 per 4 chairs
Nurse station w/charting	required in room
Clinical Sink	required in room
Bedpan Cleaning	required in room

FGI – PHASE II RECOVERY

Staff Toilet	Required in Post-Op areas
Hand wash Station	1 per 4 patient stations
Waiting for families/visitors	Required

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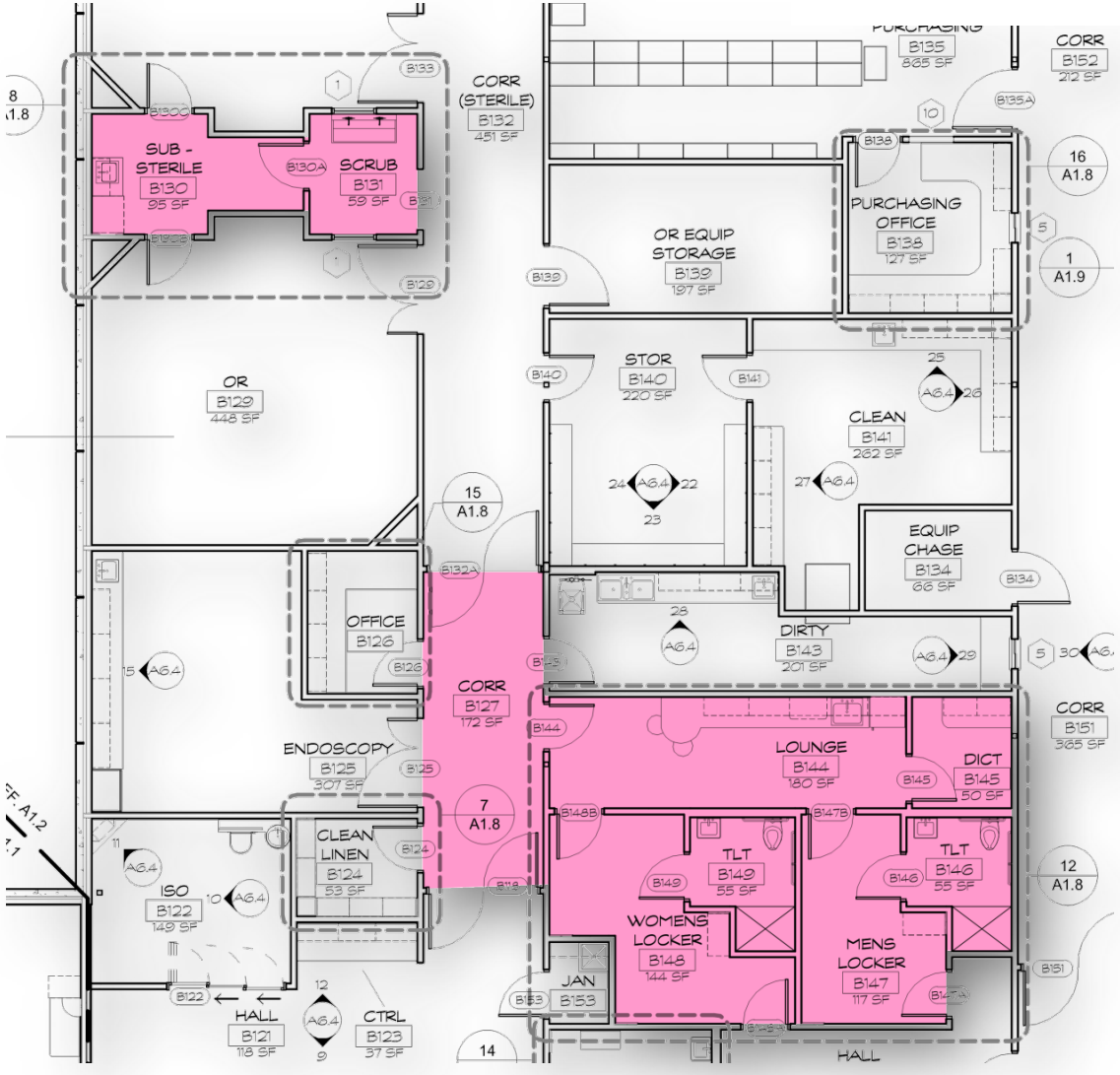

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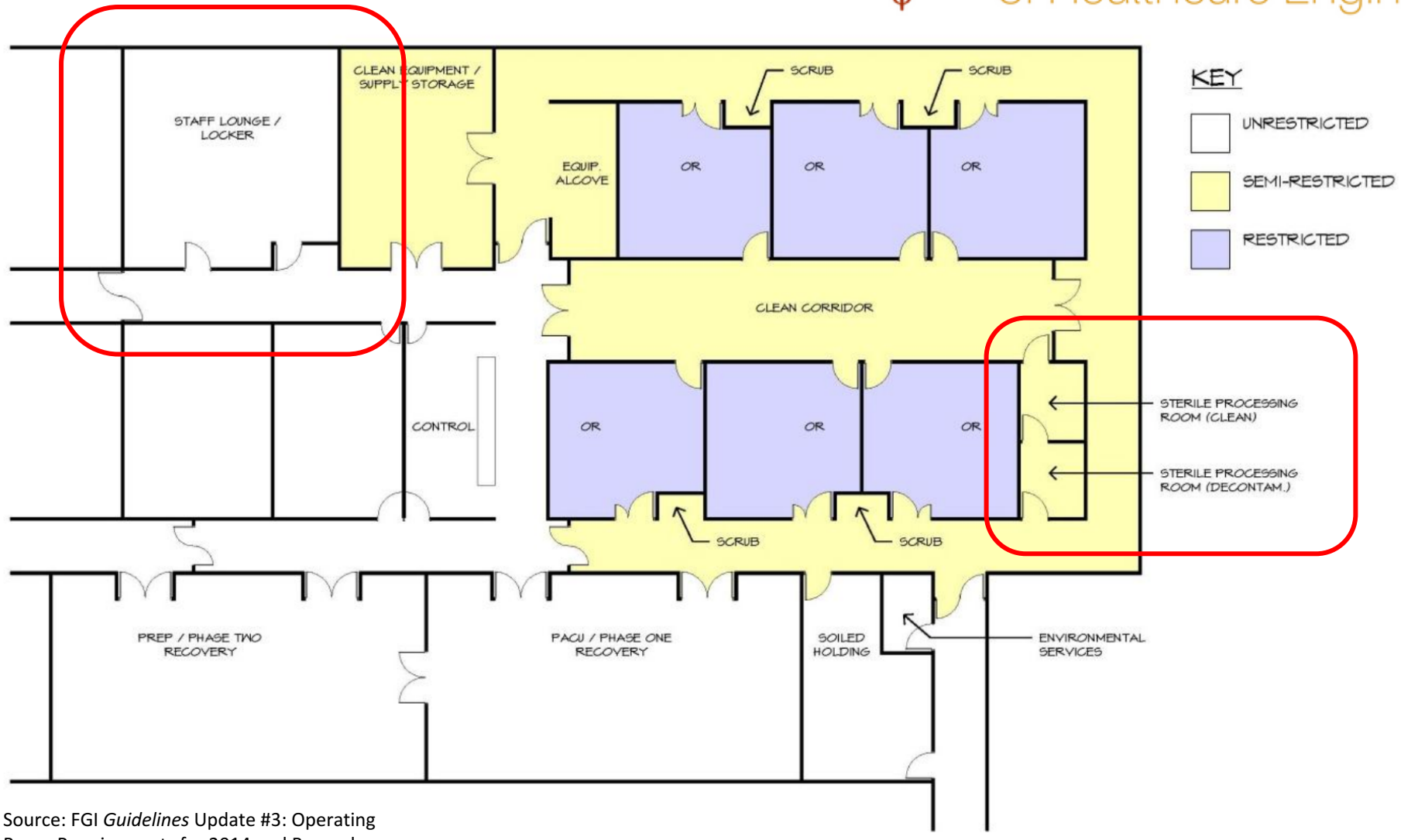

Source: FGI *Guidelines* Update #3: Operating Room Requirements for 2014 and Beyond

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THIS IS CONCEPTUALLY SIMILAR TO CURRENT OSDH

Comparison of General Inpatient Surgery Sterile Processing Requirements

2010 FGI *Guidelines*	2014 FGI *Guidelines*
2.2-3.3.6.14 A substerile room. If the functional program requires emergent sterilization, a room(s) for this purpose shall be provided in the surgery suite. . . .	***2.2-3.3.6.13 Sterile processing room.** When sterilization processes are conducted in the surgical suite, a sterile processing room shall be provided.
(1) This substerile room shall be either accessible from the operating room(s) it serves or shall be located inside the clean core if the clean core is directly accessible from the operating rooms(s). This room shall be able to be accessed without traveling through any operating rooms. (2) This room shall be equipped with the following: (a) A steam sterilizer as described in the functional program (b) A countertop (c) Built-in storage for supplies	(1) General (a) The sterile processing room shall consist of a decontamination area and a clean work area. *(b) Sharing of the sterile processing room between two or more operating rooms shall be permitted. (c) The sterile processing room shall be designed to provide a one-way traffic pattern of contaminated materials/instruments to clean materials/instruments to the sterilizer equipment. (i) Entrance to the contaminated side of the sterile processing room shall be from the semi-restricted area. (ii) Exit from the clean side of the sterile processing room to the semi-restricted area or to an operating room shall be permitted.

[3]AAMI, AORN, et al., "Immediate-Use Steam Sterilization," available from www.aami.org/publications/standards/ST79_Immediate_Use_Statement.pdf.

Source: FGI *Guidelines* Update #4: Sterile Processing in the Surgical Suite

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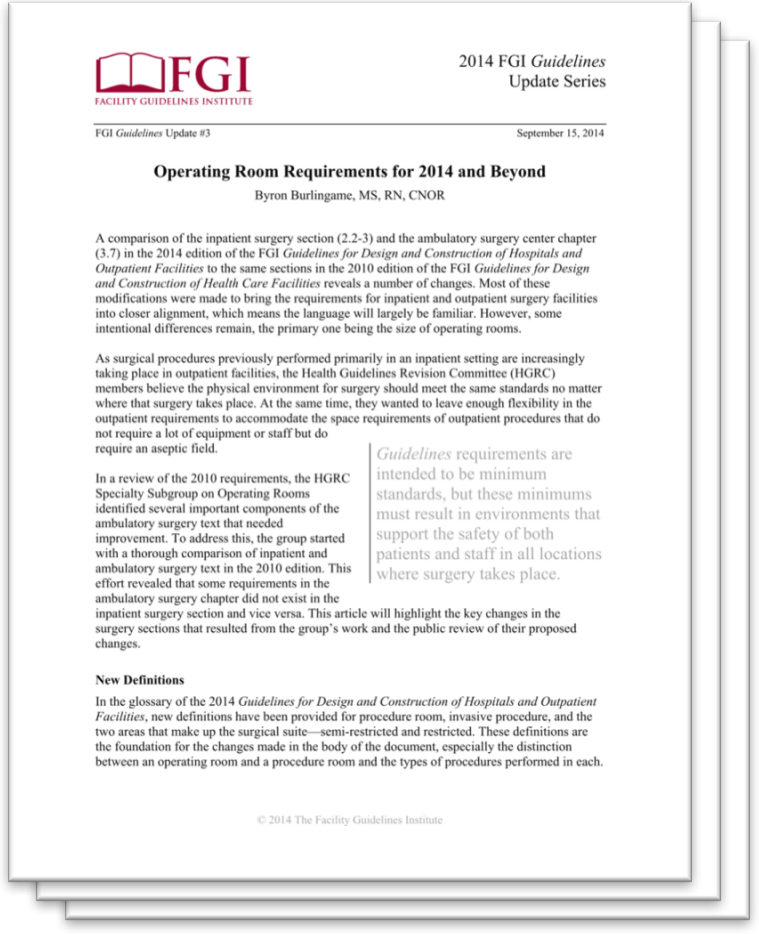
Operating Room Requirements for 2014 & Beyond

Byron Burlingame, MS, RN, CNOR

A comparison of the inpatient surgery section (2.2-3) and the ambulatory surgery center chapter (3.7) in the 2014 edition of the FGI *Guidelines*…to the same sections in the 2010…reveals a number of changes. **Most of these modifications were made to bring the requirements for inpatient and outpatient surgery facilities into closer alignment**... However, some intentional differences remain, the primary one being the size of operating rooms.



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2014 FGI *Guidelines*
Update Series

FGI *Guidelines* Update #3 September 15, 2014

Operating Room Requirements for 2014 and Beyond

Byron Burlingame, MS, RN, CNOR

A comparison of the inpatient surgery section (2.2-3) and the ambulatory surgery center chapter (3.7) in the 2014 edition of the FGI *Guidelines for Design and Construction of Hospitals and Outpatient Facilities* to the same sections in the 2010 edition of the FGI *Guidelines for Design and Construction of Health Care Facilities* reveals a number of changes. Most of these modifications were made to bring the requirements for inpatient and outpatient surgery facilities into closer alignment, which means the language will largely be familiar. However, some intentional differences remain, the primary one being the size of operating rooms.

As surgical procedures previously performed primarily in an inpatient setting are increasingly taking place in outpatient facilities, the Health Guidelines Revision Committee (HGRC) members believe the physical environment for surgery should meet the same standards no matter where that surgery takes place. At the same time, they wanted to leave enough flexibility in the outpatient requirements to accommodate the space requirements of outpatient procedures that do not require a lot of equipment or staff but do require an aseptic field.

Guidelines requirements are intended to be minimum standards, but these minimums must result in environments that support the safety of both patients and staff in all locations where surgery takes place.

In a review of the 2010 requirements, the HGRC Specialty Subgroup on Operating Rooms identified several important components of the ambulatory surgery text that needed improvement. To address this, the group started with a thorough comparison of inpatient and ambulatory surgery text in the 2010 edition. This effort revealed that some requirements in the ambulatory surgery chapter did not exist in the inpatient surgery section and vice versa. This article will highlight the key changes in the surgery sections that resulted from the group's work and the public review of their proposed changes.

New Definitions

In the glossary of the 2014 *Guidelines for Design and Construction of Hospitals and Outpatient Facilities*, new definitions have been provided for procedure room, invasive procedure, and the two areas that make up the surgical suite—semi-restricted and restricted. These definitions are the foundation for the changes made in the body of the document, especially the distinction between an operating room and a procedure room and the types of procedures performed in each.

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- Surgical procedures previously performed primarily in an inpatient setting are increasingly taking place in outpatient facilities

- The *Guidelines* leave flexibility in the requirements for outpatient procedures that do not require a lot of equipment or staff but do require an aseptic field.

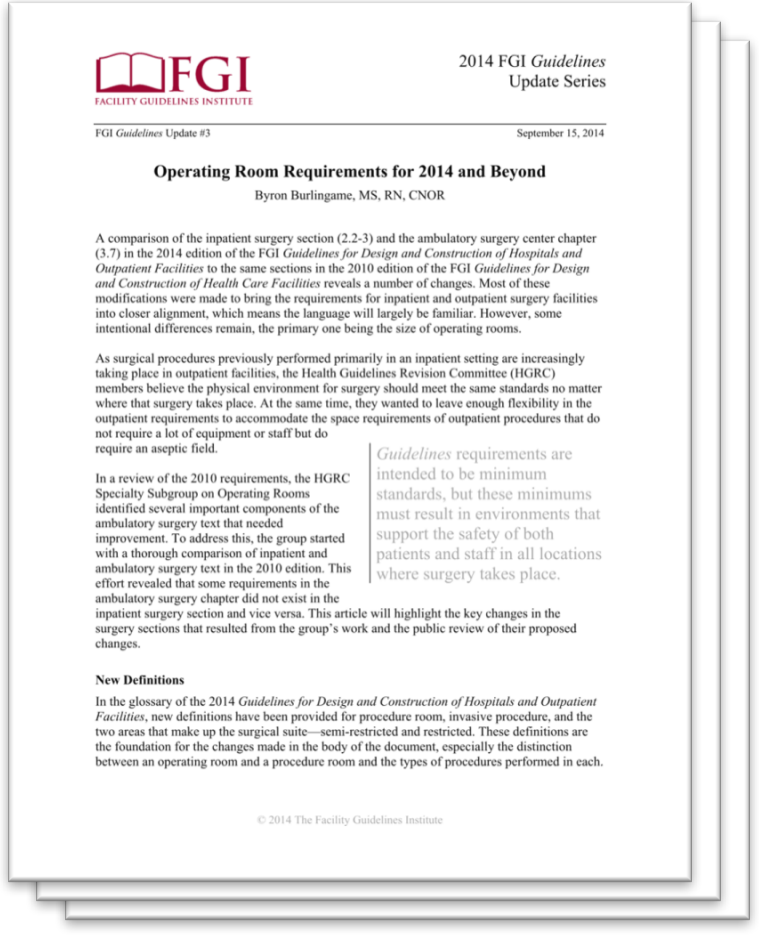

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Table 7.1

Design Parameters

Function of Space	Pressure Relationship to Adjacent Areas (n)	Minimum Outdoor ach	Minimum Total ach	All Room Air Exhausted Directly to Outdoors (j)	Air Recirculated by Means of Room Units (a)	Design Relative Humidity (k), %	Design Temperature (l), °F/°C
Procedure room (Class A surgery) (o), (d)	Positive	3	15	NR	No	20–60	70–75/21–24
Procedure Room	Out	3	15	--	No	30-60	70-75
Gastrointestinal endoscopy procedure room (x)	NR	2	6	NR	No	20–60	68–73/20–23
Endoscopy	In	2	6	--	No	30-60	68-73

OSDH Apx A

OSDH Apx A

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NURSING UNIT

Requirements for Nursing Units in FGI are not altogether different than OSDH, but have incorporated some new spaces that are important to understand. Some important ideas surround the Family Zone and Medication Safety Zone.

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NURSING

Updates for general hospital requirements

- The “patient/family centered care room is included per the Functional Program. It includes most of the features we typically add for a “family zone,” meaning that rooms without these features are technically acceptable.
- New provision to provide potable water in the event of a utility failure or disaster. (2.1-8.4.2.3(5))
- Lounge shall have public communication services (which can include public wifi, or distributed antenna systems for mobile phones.)
- Public hand-washing stations fittings shall be hands-free. (2.1-8.4.3.2(8))

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NURSING

Interesting Elements

- More realistic language regarding seclusion room design: “designed and constructed *to avoid features that* enable patient hiding, escape…..”
- New to 2014 “hand washing station shall be located at or adjacent to the entrance to the patient room with unobstructed access for use by” people coming and going.
- Nurse station –handwashing station must be “in, next to, or directly accessible to…”
- Documentation areas – now has verbiage that allows these to be used as medication safety zones (2.1-2.6.6)
  - Documentation rooms and meds work areas require task lighting.
- Requirement for built-in mechanical lifts in all new bariatric nursing rooms (10% in renovation) (2.2-2.16.2.9)

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NURSING

New Spaces

- You can still have either a meds-prep room or a Pyxis machine, but there are general requirements that are over-arching now for such "**medication safety areas**" that affects design of acoustics, lighting, configuration, visual distraction, etc.
- **Nourishment areas** – clarification that there needs to be space for temp storage of soiled food service implements, i.e. food carts.
- **Ice making equipment** "shall be located in an enclosed space" – appendix talks about mitigating sound from these.
- **Soiled holding room** – clarification that shall have hand washing **or** sanitation station, and room for covered containers
- **Emergency Equipment Storage** – each nursing unit has to have this, it has to be direct visual control of staff (crash carts, ventilators, x-ray, etc).

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NURSING

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Summary of New 2014 *Guidelines* Medication Safety Zone Requirements

Guidelines Location	Medication Safety Zone Requirements
CHAPTER 1.1: PLANNING, DESIGN, CONSTRUCTION, AND COMMISSIONING	
Medication safety portion of safety risk assessment (Section 1.2-5.3)	- Medication safety risk assessment is a component of the new safety risk assessment, which is designed to improve patient and caregiver safety. See FGI *Guidelines* Update #1: *Designing for Safety*. - Requires the governing body to identify the medication safety zones in a project as a component of the safety risk assessment report
PART 2: HOSPITALS	
Chapter 2.1: Common Elements for Hospitals (Section 2.1-2.6.6)	- Provides design requirements for medication safety zones, based on USP-NF standards: • Location to minimize distractions and interruptions • Work space organization, including consideration of personnel and medication safety technology and equipment impacts on design • Sound and noise attenuation by meeting the criteria in Table 1.2-4 (Minimum Design Room Sound Absorption Coefficients), Table 1.2-2 (Maximum Design Criteria for Noise in Interior Spaces Caused by HVAC and Other Building Systems), and Table 1.2-6 (Design Criteria for Minimum Sound Isolation Performance Between Enclosed Rooms). • Task-specific lighting levels found in USP-NF, Chapter 1066 - Includes reference to requirements for sharps containers, including placement, in medication safety zones based on OSHA (2001) and NIOSH (1998) standards and guidance.
Chapters 2.2–2.7 (All hospital types)	- Medication safety zone requirements are addressed for each of the different types of hospitals. - Sends the reader back to Section 2.1-2.6.6 for the medication safety zone requirements detailed in the Common Elements chapter.
PART 3: OUTPATIENT FACILITIES	
Chapter 3.1: Common Elements for Outpatient Facilities (Section 3.1-3.6.6)	- Provides design requirements for medication safety zones, based on USP-NF standards as described above for Part 2. - Includes sharps container reference as described above for Part 2.
Chapters 3.2–3.14 (Specific types of outpatient facilities)	-Medication safety zone requirements are addressed for each of the different types of outpatient facilities. - Sends the reader back to Section 3.1-3.6.6 for the medication safety zone requirements detailed in the Common Elements chapter.

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IMAGING

- Updates throughout mainly regarding size requirements for various equipment modalities.
- New section added for Interventional Imaging where radiographic visualization is required.

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IMAGING

Interesting Elements

Interventional Imaging (2.2-3.5)

- **Interventional imaging suite:** A space in the unrestricted area of the building that contains semi-restricted and restricted areas, to which access is restricted to persons wearing proper attire, and that includes peripheral support areas where diaTgnostic and therapeutic procedures such as cardiac catheterization, electrophysiology, interventional angiography, cardiac stenting, or implantation of devices are performed. See *Surgical suite* for definition of semi-restricted and restricted areas.

- **2.2-3.5.3.1 General**
  - (2) Location. Pre-procedure and recovery area(s) or room(s) shall be immediately accessible to procedure rooms and separate from corridors.
  - (4) Patient care station design (a) Bays, cubicles, or single-bed rooms…

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667 – MRI

OSDH Regulation	Chapter 667: 49-10 Requirement
General	
Space Requirements	As required to accomodate the FP, & manufacturer's recommendations.
Radiation Protection	Radiation Physicist to specify type, location, & amount of radiation protection.
Magnetic Resonance Imaging (MRI)	
Space Requirements	As required to accomodate the FP. Permitted to range from 325sf - 620sf depending on vendor & magnet strength.
Control Room	Required
Computer Room	Self-contained air conditioning supplement if specified by the manufacturer.
Cryogen storage	May be req'd depending on location of nearby storage.
Darkroom	Located near the control room if needed. Must be located outside the 10 gauss field.
Spectroscopy	When provided, locate remote to the magnetic fringe fields.
Magnetic Shielding	Varies
Cryogen exhaust	Ventaliation required
Patient holding area	Required

FGI – MRI

Regulation	FGI 2014 Requirement
Magnetic Resonance Imaging (MRI) Facilities	
Space Requirements	Comply with manufacturer's guidelines. 4ft clear around the gantry or table. Door swing shall not encroach on clearances.
Configuration Requirements	
Conform to the four-zone protocols in the American College of Radiology's "Guidance Document for Safe MR Practices"	Required
Controlled Non-PT/ST Proximity	Must meet U.S. Food & Drug Administration requirements to prevent unscreened individuals from entering the 5-gauss (0.5 millitesla) volume around the MRI equipment.
Patient interview/screening	Required
Physical screening	Required
Ferromagnetic detection & warning system	Required
Access Control	Required
Site-specific clinical & operational requirements	Required
Non-MRI-safe objects	Must be contained outside the restricted MRI safety zone(s)

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Space Requirements	As required to accomodate the FP. Permitted to range from 325sf - 620sf depending on vendor & magnet strength.
Control Room	Required
Computer Room	Self-contained air conditioning supplement if specified by the manufacturer.
Cryogen storage	May be req'd depending on location of nearby storage.
Darkroom	Located near the control room if needed. Must be located outside the 10 gauss field.
Spectroscopy	When provided, locate remote to the magnetic fringe fields.
Magnetic Shielding	Varies
Cryogen exhaust	Ventaliation required
Patient holding area	Required

FGI – MRI

Patient storage/lockers	Required
Control Vestibule	Visible from control room, located outside MRI Room & MRI magnetic field.
Key locks/Pass-key Lock System	Required when the magnetic field strength is =/> than 5 gauss (0.5 millitesla)
Superconducting MRI Room	When superconducting MRI is used, cryogen venting, emergency exhaust, & passive pressure relief shall be provided according to manufacturer's specs.
HW Station	Directly accessible to MRI Room
MRI Control Room	Required
Full view of patient activity	Required
Operator Console	Must have full view of entry/approach to the MRI Room
Shared control rooms	Permitted to be shared with multiple MRI rooms
Space for emergency patient stabilization/ resuscitation nearby but outside the 5-gauss line.	Required
Pre-procedure patient care area	See below
Computer Room	Required. May serve multiple MRI Rooms
MRI Equipment	Meet manufacturer's requirements & facility specific conditions. Magnetic shielding may be required.
Special MRI Design Elements	
Ferromagnetic materials	Prohibited when they may interfere with the operation of the scanner.
MRI Room Location &/or Shielding	Radiofrequency interference from elevators/ other mechanical-electrical equipment must be avoided.
Floor Structure	Must support equipment & minimize magnetic field interference & environmental vibrations

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Magnetic Resonance Imaging (MRI)	
Space Requirements	As required to accomodate the FP. Permitted to range from 325sf - 620sf depending on vendor & magnet strength.
Control Room	Required
Computer Room	Self-contained air conditioning supplement if specified by the manufacturer.
Cryogen storage	May be req'd depending on location of nearby storage.
Darkroom	Located near the control room if needed. Must be located outside the 10 gauss field.
Spectroscopy	When provided, locate remote to the magnetic fringe fields.
Magnetic Shielding	Varies
Cryogen exhaust	Ventaliation required
Patient holding area	Required

FGI – MRI

Entry doors	Must swing out or allow egress in the event of a quench.
Signage/Lighting	A red light shall indicate that the magnet is always on.
Acoustic Control	50-60 STC Ref. Table 1.2-6

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667 – ULTRASOUND & CT

Ultrasound	
Space Requirements	As required to accomodate the FP.
Patient Toilet	Accessible to the procedure room & corridor.
Computerized Tomography (CT) Scanning	
Space Requirements	As required to accommodate equipment.
Control Room	Required
View window	Staff shall have full view of the patient.
Location	Convenient access to film processing
Patient Toilet	Convenient to the procedure room. If directly accessible, patients must be able to leave the toilet w/ out reinterring the procedure room.

FGI – ULTRASOUND & CT

Ultrasound Facilities	
Space Requirements	Sized to accommodate all the services provided. 120sf minimum. 3ft clear around the table/stretcher.
HW Station	Required
Patient Toilet	Directly accessible to exam/ procedure, and may serve multiple procedure rooms.
CT Facilities	
Space Requirements	4ft minimum clear around the gantry or table, and compliance with manufacturer's guidelines. Door swing(s) shall not encroach on equipment, patient circulation, or transfer space.
HW Station	Required

NOTE: Patient Toilet Requirement Removed

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667 – X-RAY / RADIOGRAPHY

Diagnostic X-Ray	
Space Requirements	As required to accomodate the FP.
Control Room	Shielded area w/ viewing window. For mammography equipmnet w/ built-in shielding, the control room may be excluded if approved by the department.

FGI – X-RAY / RADIOGRAPHY

Diagnostic Radiography Facilities	
Shielded control alcove	Required, except when approved for mammography machines w/ built-in shielding. Must meet general requirements above.
Radiography space requirements	180sf minimum, except when it is for dedicated chest x-ray it may be smaller. Must be sized to accommodate all services provided.
HW Station	Required
Radiography/Fluoroscopy	
Space Requirements	Sized to accommodate all the services provided.
HW Station	Required
Patient Toilet	Direct access required from dedicated Fluoroscopy. Patients must be able to leave the toilet w/ out reinterring Fluoroscopy.
Mammography	
Visual patient privacy	Required
HW Station	Required
Changing Room(s)	Immediately accessible to waiting & procedure room(s). May be shared with other imaging services. Ref. 2.2-3.4.8.3 for General Req's.

OSDH Chapter 667 vs. FGI 2014 – A Comparison

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HEALTH FACILITIES GROUP
architecture

IMAGING

Oklahoma Association of Healthcare Engineers

667 – SUPPORT SPACES

Support Spaces	
Patient Waiting	Required
Seating	As required to accomodate the FP.
Patient Privacy	Outpatients & inpatients shall be separated & screened to provide visual & acoustic privacy.
Airborne infection Control	If required by the IRCA
Control Desk & Reception	Required
Patient holding area	Required for inpatient stretchers or beds
Patient Toilets	Convenient to waiting.
Radiographic/ Fluoroscopic Toilets	directly accessible with an exit that does not require reentry to the procedure room. When Fluoroscopic procedures are rare, a nearby PT TLT may be used, if located for immediate access.
Patient Change	Convenient to waiting & x-ray.
Staff Toilets	When 3 or fewer exam/ procedure rooms are provided, toilets may be outside the suite but conveniently accessible.
Film Storage (Active)	Located for immediate retrival.
Film Storage (Inactive)	May be located outside the suite.
Storage for unexposed film.	Required.
Offices	Must accommodate viewing, individual consultation, & charting of film.

FGI – SUPPORT SPACES

Support Areas	
Reception & Control Desk	Sugested
Documentation area	Required
Consultation area	Sugested
Pre-procedure patient care area	Space for patient point-of-care lab work or injection preperation for contrast. Direct observation from staff. Must accommodate stretcher patients & seating for patients & visitors.
Med Safety Zone & Storage	Immediately accessible to patient holding areas.
Clean Storage	Must be redially accessible. May be shared with other departments.
Soiled Holding	Required
HW Station	Directly accessible
Janitor	Immediately accessible to the immaging suite. May be shared with other depatments.
Contrast Media Preperation space	May be shared with multiple imaging rooms.
If contrast media are prepared in the imaging department.	Sink, counter, & storage area required.
If pre-prepared media are used	Storage area required.
Image management systems	Required
Image interpretation/reading Room(s)	Required

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667 – SUPPORT SPACES

Offices	Must accommodate viewing, individual consultation, & charting of film.
Clerical offices/spaces	As required to accomodate the FP.
Consultation area	Required
Contrast Media Prep area	May be shared with multiple imaging rooms.
If contrast media are prepared in the imaging department.	Sink, counter, & storage area required.
If pre-prepared media are used	Storage area required.
Darkroom	Varies on equipment used. When req'd shall be located convenient to procedure & qulality control areas.
Quality Control Area	Located near the processor for viewing film.
Cleanup Facilities	Located in the suite for convenient access.
Service sink or floor receptacle	Required
Equipment & supply storage	Required
Receptacle w/ hot & cold water	If automatic film processors are used.
HW Station	Located in each procedure room, and convenient to the MRI Room.
Clean Storage	May be shared with other departments.
Soiled Holding	Required
HW Station	Required
Meds Storage	Required with provisions for locking.

FGI – SUPPORT SPACES

Image interpretation/reading Room(s)	Required
Ultrasound Prob Processing Facilities	Required when cleaning & decontam of probes is performed on the unit.
Processing room	May server multiple ultrasound rooms
Space Requirements	Deterimend by size & quantity of equipment.
Flow of traffic	contaminated to clean assembly to storage.
Decontamination area	Work counter, sink, HW station, space for equipment if used.
Clean equipmen & storage	Required
Support Areas for Imaging Staff	
Staff Lounge	Redily accessible to the suite. Lockers required.
Staff Toilets	Directly accessible. When 3 or fewer exam/ procedure rooms are provided, toilets may be outside the suite but immediately accessible.
Support Areas for Patients	
Patient Waiting	
Seating	Must accommodate the max expected patient volume.
Patient Privacy	Outpatients & inpatients shall be separated & screened to provide visual & acoustic privacy.
Airborne infection control	If required by the ICRA, must meet ANSI/ASHRAE/ASHE 170 requirements.
Patient Toilet(s)	Immediately accessible
Patient Changing Rooms	Immediately accessible to exam/ procedure.

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667 – ANGIOGRAPHY

Angiography	
Space Requirements	As required to accomodate the FP.
Control Room	As required to accomodated the FP. Must have a view window.
Viewing Area	Required
Scrub Sink	Outside the staff entry.
Patient holding area	Required
Portable equipment storage	Required
Provisions for extended post-procedure & ovservation of outpatients.	Required

FGI – ANGIOGRAPHY

Interventional imaging suite: A space in the unrestricted area of the building that contains semi-restricted and restricted areas, to which access is restricted to persons wearing proper attire, and that includes peripheral support areas where diagnostic and therapeutic procedures such as cardiac catheterization, electrophysiology, **interventional angiography**, cardiac stenting, or implantation of devices are performed. See Surgical suite for definition of semi-restricted and restricted areas.

Radiation Protection	
Radiation Protection	Radiation Physicist to specify type, location, & amount of radiation protection. Varies based on type & quantity of equipment
Shielded control space	Required when fixed equipment is used. Must have a shielded view window.
Special Design Elements	
Flooring is not permitted to require a powered cleaner	Required in MRI Rooms
General Diagnostic Procedures	Lay in Ceiling Tile Permitted

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EMERGENCY

Remains similar to OSDH requirements with some specific updates. Note, *Observation Units* are outlined in a specific section of the FGI and are no longer considered part of the ED (but may be if determined to be the best location).

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EMERGENCY

Interesting Elements

- Renamed “Initial and Definitive Emergency” to “Basic Emergency Care” (2.2-3.1.2) and “Emergency Department” (2.2-3.1.3)
- Hand-wash station required at ED Triage. (2.2-3.1.3.3(3))
- Broadened requirements for observation units (outside the ED). 2.2-3.2.1.2. Patient Care Stations w/ min. clear floor area of 120 SF (2.2-3.2.2.2(1))
- *Human decontamination area (2.2-3.1.3.6(8))
  - (a) Location. In new construction, a decontamination room shall be provided with an outside entry door located as far as practical, but no less than 10 feet, from the closest other entrance, the internal door of this room shall open into a corridor of the emergency department, swing into the room, and he lockable against ingress from the corridor.

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Freestanding Emergency Departments

- Airborne Infection Isolation rooms and Secure Holding rooms are not mandated in this section unless required by Functional Program.
    - These are mandated in Part 2, Hospitals, Emergency Departments (2.2-3.1.3)
- Radiography and Fluoroscopy facilities are required.
- Now its own chapter. In 2010 was just a section following the general hospital ED section. OSDH has no recognition of freestanding emergency care.
- A lab work area is required, but design will depend on types of testing planned to take place on site. This is dictated by the functional program.

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MISCELLANEOUS

These items may affect your planning efforts but may be easily missed.

Sections to Note

Specific guidelines for Bariatric Care Unit, Hyperbaric Chambers, Proton Therapy

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MISC.

Smoke Purge

No longer required per NFPA 99-2012. State Health allowing for use of waivers in current projects.

Elevators

*(1) Elevator cars/cabs shall have minimum inside clear dimensions of **5 feet 8 inches wide by 9 feet deep**. *(2) Elevator car/cab doors shall have a minimum clear width of **54 inches and a minimum height of 84 inches**. (3) In renovations, an increase in the size of existing elevators shall not be required if the elevators can accommodate patient beds used in the facility. **SAME AS OSDH**

Water Features

No “Open” water features are allowed. The old ones do not have to be taken out, but new ones cannot be installed. “Closed” features are still allowed.

Swivettes are no longer permitted in ICU rooms.

Backup Power

The cooling for IT rooms must be on emergency power. This is due to the changing nature of business with so many things being electronic. Emergency Medical Record (EMR) devices need to be on UPS. This is now considered a “critical” system.

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MISC.

Return air plenums are not permitted in patient care areas – IP or OP. If your spaces require a specific pressure relationship, there cannot be a plenum.

ICU rooms in the FGI *Guidelines* have no pressure requirement, but it is recommended that they be positive pressure. This can be slight positive pressure and it does not have to be monitored.
See more at: http://www.fosdickandhilmer.com/updated-fgi-guidelines-for-2014/#sthash.aUJCC3e1.dpuf

Pain Management

3.8-3.1 An office procedure room is a space(s) for the performance of procedures that do not require a restricted environment but may require the use of sterile instruments or supplies (e.g., laser procedures that do not require cutting of the skin of mucous membranes, **pain management**); see the definitions of "invasive procedure" and "procedure room" in the glossary for more information. Moderate sedation, minimal sedation, and local anesthesia may be administered in a procedure room.

Potable Water

*(5) Provisions shall be made to provide potable water to the facility in the event of a utility failure or a disaster. (a) A well, storage tank, or building system piping connection shall be permitted to serve this purpose. (b) Any equipment required to provide potable water in the event of a utility failure or disaster shall be served by the essential electrical system (i.e., emergency power).

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QUESTIONS?