Expanding Possibilities as we Transition to the 2018 FGI Guidelines

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Agenda
• What are the FGI Guidelines?
  – Brief History of the Guidelines
  – What are we Transitioning from?
• Elements of the FGI Guidelines
• New and Significant Revisions in 2018
• FGI “Beyond Fundamentals” Resource Library
• Questions

What are the FGI Guidelines?
• The industry’s most widely recognized guidance for planning, designing, and constructing Health Care, Residential Care, and Support Facilities.
• The FGI Guidelines documents consolidate minimum program, space, risk assessment, infection prevention, architectural detail, surface, and built-in furnishing requirements in one convenient place.

What are the FGI Guidelines?
• Adopted by 42 states as the minimum construction requirements for design and construction of hospitals and health care facilities.
• Referenced by The Joint Commission and other accrediting organizations for use when healthcare organizations are planning new, altered or renovated space (unless there are State Rules and Regulations with design criteria to be followed when planning for new, altered or renovated health care facility space).

History of the Guidelines
• February 14, 1947 - Federal government issued “General Standards” for hospitals as part of implementing regulations for the Hill-Burton program.
• 1974 - Public input used to update standards, re-titled “Minimum Requirements of Construction and Equipment for Hospitals and Medical Facilities”.
• 1984 - Last edition of the Guidelines revised and published by the federal government as federal grant and loan programs expired.

History of the Guidelines
• 1987 - Guidelines published by American Institute of Architects with a special grant from the government.
• 1998 - Facilities Guidelines Institute (FGI) founded as a not-for-profit 501(c)(3) corporation with stakeholders in health care facility planning, design, construction, operations and clinical services using a consensus process to revise/update.
• 2001 - Guidelines published by FGI with funding and assistance from HHS/Health Care Financing Administration, AIA, ASHE, and National Institutes of Health.
History of the Guidelines

- History incomplete without mention of:
  - Armand Burgun
  - Joseph G. Sprague
  - Douglas S. Erickson

- Obtained a federal grant to fund the revision cycle in the early 90’s and create a Steering Committee consisting of federal and state government representatives, along with private sector representatives with expertise in design, operation and construction of health care facilities.

FGI Guidelines Today

Today, the Health Guidelines Revision Committee (HGRG) is a balanced group of stakeholders consisting of:

- Federal and State AHJs (24%)
- Architects (20%)
- Medical Professionals (18%)
- Engineers (13%)
- Healthcare Administrators (10%)
- Infection Control Experts (4%)
- Construction Representatives (4%)

What are we Transitioning From?

- The 2007 Minimum Standards require Soiled Holding to have a handwashing sink
  - Section 2.1-2.8.12.3 of 2018 FGI Guidelines allows hospital to have either a hand-washing sink or a hand sanitation station for Soiled Holding

- The 2007 Minimum Standards current ventilation table 2A requires Endoscopy to be positive pressure with 15 ACPH
  - ASHRAE 170-2017 in the 2018 FGI Guidelines has no pressure requirement for Endoscopy and only 6 ACPH

2007 MINIMUM DESIGN STANDARDS FOR HEALTH CARE FACILITIES IN MICHIGAN

What are we Transitioning From?

- 2007 MDS Section 7.32.G2 item 1. states: “Bath stations in shower stalls and tubs shall be located 5 – 6 feet above the floor…”
  - FGI Guidelines 2.1-8.5.1.3 requires height of bath call stations to be within 3 to 4 feet above the floor. (This would typically require a waterproof nurse call station)
- 2007 MDS Table 10 is very similar to FGI Table 2.1-2 regarding nurse call devices, but:
  - FGI requires compliance with UL 1069; 2007 MDS does not
Elements of the FGI Guidelines – Part 1

Part 1: General

- 1.1 Introduction (Minimum standards, earthquake, other regulations)
- 1.2 Planning, Design and Construction
  - Functional Program
  - Safety Risk Assessment
  - Planning and Design Considerations (Acoustic design, sustainable design, accommodation for patients of size, etc.)
  - Commissioning
- 1.3 Site (Lighting, Signage, Parking, Landscaping, etc.)
- 1.4 Equipment

1.1-1.2 Minimum Standards for New Facilities and Major Renovations

1.1-1.2.1 Each chapter in this document contains information intended as minimum standards for design and construction of new, and for major renovations of existing health care facilities.
1.1-1.2.2 Standards set forth in the Guidelines shall be considered minimum and do not prohibit designing facilities and systems that exceed these requirements where desired by the governing body of the health care facility.

1.1-3 Renovation

1.1-3.2 Facilities Subject to Compliance with the Guidelines
1.1-3.3 Undiminished Safety

1.1-4 Government Regulations

1.1-4.1 Design Standards for Accessibility
1.1-4.2 Regulations for Earthquake Resistant Design
1.1-4.3 Flood Projection
1.1-4.4 National Standards for the Protection of Patient Health Information
1.1-4.5 Environmental Regulations

1.2-2 Functional Program

1.2-2.1 General
1.2-2.1.1 Functional Program Requirement
1.2-2.1.1.1 A functional program shall be developed for new construction, major renovations, and projects that change the functional use of any facility space.
1.2-2.1.2 The governing body shall be responsible for developing, documenting and updating the functional program.
1.2-2.1.3 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.

1.2-4 Safety Risk Assessment

1.2-4.1 General
1.2-4.2 Infection Control Risk Assessment
1.2-4.3 Patient Handling & Movement Assessment
1.2-4.4 Fall Prevention Assessment
1.2-4.5 Medication Safety Assessment
1.2-4.6 Behavioral and Mental Health Risk Assessment
1.2-4.7 Patient Immobility Assessment
1.2-4.8 Security Risk Assessment

Hospital Medical Errors Kill 98,000 Americans Each Year — National Investigation
Elements of the FGI Guidelines – Part 1

1.2-4 Safety Risk Assessment (SRA) (Planning, Design & Construction)
- Multidisciplinary, documented assessment process
- Proactively identify hazards and risks
- Mitigate underlying conditions of the built environment that can contribute to adverse safety events
  - Infections, falls, medication errors, immobility-related outcomes, security breaches, and musculoskeletal or other injuries.
- Evaluation of the population at risk
- Nature and scope of the project
  - Models of care, operational plans, sustainable design elements and performance improvement initiatives of the healthcare organization.
- Proposes built environment solutions to mitigate potential risks & hazards.

Elements of the FGI Guidelines – Part 1

1.3 Site
1.3-1 General
1.3-2 Location (Availability of Transportation, Security, Utilities)
1.3-3 Site Features
  - 1.3-3.1 Signage
  - 1.3-3.2 Lighting
  - 1.3-3.3 Roads and Walkways
  - 1.3-3.4 Parking
  - 1.3-3.5 Emergency Access
  - 1.3-3.6 Landscape Design Features
  - 1.3-3.7 Transfer Support Features
1.3-4 Environmental Pollution Control

1.4 Equipment

Elements of the FGI Guidelines – Part 1

1.2 Planning, Design and Construction, continued
1.2-6 Planning and Design Considerations and Requirements
1.2-6.1 Acoustic Design
1.2-6.2 Sustainable Design
1.2-6.3 Wayfinding
1.2-6.4 Design Considerations for Accommodation of Patients of Size
1.2-6.5 Emergency Preparedness and Management
1.2-7 Renovation (Phasing, Isolation, Air Quality, Existing Conditions)
1.2-8 Commissioning
1.2-9 Record Drawings and Manuals

Elements of the FGI Guidelines – Part 2

Part 2: Hospital Facility Types
- 2.1 Common Elements for Hospitals
  - 2.1-1 General
  - 2.1-2 Patient Care Units
  - 2.1-3 Diagnostic and Treatment Areas (Exam/Treatment, Telemedicine)
  - 2.1-4 Patient Support Facilities (Lab, Pharmacy, Food Services)
  - 2.1-5 General Support Facilities (SPD, EVS, Linen, Engineering, etc.)
  - 2.1-6 Public and Administrative Areas
  - 2.1-7 Design and Construction Requirements
  - 2.1-8 Building Systems

Appendix Comments:
- Typically found at bottom of page
- Not intended to be enforceable
- Additional information or clarity
2.2 Specific Requirements for General Hospitals

2.2.2 Patient Care Units
2.2.2.1 General
2.2.2.2 Medical-Surgical Patient Care Unit
2.2.2.3 Oncology Patient Care Unit
2.2.2.4 Pediatric & Adolescent Oncology Unit
2.2.2.5 Intermediate Care Unit
2.2.2.6 Critical Care Unit
2.2.2.7 Pediatric Critical Care
2.2.2.8 Neonatal Intensive Care Unit

2.2 Specific Requirements for General Hospitals, cont.

2.2.2 Patient Care Units, Cont.
2.2.2.9 Obstetrical Unit
2.2.2.10 Nursery Unit
2.2.2.11 Pediatric & Adolescent Patient Care Unit
2.2.2.12 Psychiatric Patient Care Unit
2.2.2.13 In-Hospital Skilled Nursing Care Unit
2.2.2.14 Bariatric Patient Care Unit

2.2.3 Diagnostic and Treatment Facilities (ED, Surgery, Imaging, etc.)

2.2 Specific Requirements for General Hospitals, cont.

2.2.4 Patient Support Facilities (Lab, Pharmacy, Food Services)
2.2.5 General Support Facilities (Sterile Processing, Linen & Waste Management, EVS, Materials Mgmt., Engineering)
2.2.6 Public and Administrative Areas
2.2.7 Design and Construction Requirements
2.2.8 Building Systems (HVAC, Electrical Systems, Plumbing Systems, Communications Systems, Electronic Safety and Security Systems, Other Special Systems)

2.3 Specific Requirements for Freestanding Emergency Care Facilities

2.4 Specific Requirements for Critical Access Hospitals
2.5 Specific Requirements for Psychiatric Hospitals
2.6 Specific Requirements for Rehabilitation Hospitals
2.7 Specific Requirements for Children's Hospitals
2.8 Specific Requirements for Mobile/Transportable Medical Units

Part 3 Ventilation of Hospitals


ASHRAE keeps Standard 170 under a continuous maintenance process, permitting official changes to be made at any point over the life cycle of the document.

Addenda issued after publication considered part of 2018 Guidelines
New and Significant FGI Revisions in 2018

- Airborne Infectious Isolation (AII) rooms now permitted to have either self-closing door or audible alarm that can be activated when the room used as an isolation room.
- Accommodations for telemedicine services.
- Requirements for accommodations for care of patients of size in Common Elements for hospitals (Part 2.1)
  - Patient handling and movement assessment
    - Clearances for rooms both with and without overhead or floor lifts
    - Door opening sizes along the path of travel for these patients

New and Significant FGI Revisions in 2018

- “Patients of Size” – those who don’t fit standard definition of “obese.”
- “Bariatric patient” now refers exclusively to those who require bariatric surgery.
- Requirements moved from Nursing Units (Section 2.2-2.16 in 2014) to Common Elements (Section 2.1-2.3).
- Section 2.2-2.14 Bariatric Patient Care Unit now states, “Where a bariatric patient care unit is provided, it shall meet the requirements in Section 2.2-2.2 (Medical/Surgical Patient Care Unit) and the requirements in Section 2.1-2.3 (Accommodations for Care of Patients of Size).”

Clearances for POS patient rooms

Rooms with fixed lift: 10’-6” by 5’

Clearances for Patients of Size

Rooms without fixed lift: 10’6” by 7’
New and Significant FGI Revisions in 2018

Patients of Size Door Size

Inpatient rooms entry door:
57” clear width

Toilet room door:
45.5” clear width

Patients of Size Toilet Clearance

Patient toilet:
- 36” centerline to both sides if expanded capacity toilet
- 44” centerline to sides if standard toilet
- 72” long x 46” wide clearance in front of toilet required

Patients of Size Waiting

- A minimum of 5% of seating must have 600# capacity.

New and Significant FGI Revisions in 2018

New table

<table>
<thead>
<tr>
<th>Examination/Treatment room</th>
<th>Design Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient care that may require high-level disinfection or sterilization instruments but does not require the environmental controls of a procedure room</td>
<td>Unrestricted area</td>
</tr>
<tr>
<td>Flooring: reusable and wear-resistant for the location; stable, firm, and slip-resistant</td>
<td></td>
</tr>
<tr>
<td>Wall finishes: washable</td>
<td></td>
</tr>
<tr>
<td>Ceiling: reusable with routine housekeeping equipment; lay-in ceiling permitted</td>
<td></td>
</tr>
</tbody>
</table>

New and Significant FGI Revisions in 2018

Procedure room

<table>
<thead>
<tr>
<th>Procedure room</th>
<th>Design Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient care that requires high-level disinfection or sterilization instruments and some environmental controls but does not require the environmental controls of an operating room</td>
<td>Semi-restricted area</td>
</tr>
<tr>
<td>Flooring: reusable and wear-resistant for the location; stable, firm, and slip-resistant</td>
<td></td>
</tr>
<tr>
<td>Floor and wall base assemblies in cystoscopy, urology, and endoscopy procedure rooms and endoscopy processing room: monolithic floor with integral coved wall have carried up the wall a minimum of 6 inches</td>
<td></td>
</tr>
<tr>
<td>Wall finishes: washable</td>
<td></td>
</tr>
<tr>
<td>Ceiling: smooth and without crevices, scuffable, non-absorbent, non-porous; capable of withstanding cleaning chemicals; without crevices; lay-in ceiling permitted if galvanized or each ceiling tile weighs at least one pound per square foot and no perforated, regular, serrated, or highly textured tiles</td>
<td></td>
</tr>
</tbody>
</table>
New and Significant FGI Revisions in 2018

Operating room

<table>
<thead>
<tr>
<th>Use</th>
<th>Location</th>
<th>Design Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invasive procedures</td>
<td>Restricted area</td>
<td>Floor and wall base assemblies: monolithic floor with integral coved wall base carried up the wall a minimum of 6 inches</td>
</tr>
<tr>
<td>Any procedure during which the patient will require physiological monitoring and is anticipated to require active life support</td>
<td>Access from a semi-restricted area</td>
<td>Floor and wall base assemblies: monolithic floor with integral coved wall base carried up the wall a minimum of 6 inches</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wall finishes: washable; free of fixtures, open joints, or crevices</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ceiling: monolithic, scrubbable, capable of withstanding cleaning and/or disinfecting chemicals, gasketed access openings</td>
</tr>
</tbody>
</table>

FGI – Beyond Fundamentals Resource Library

- Digital resource library on latest health care design thinking regarding:
  - Best practices
  - Design recommendations
  - Evidence-based research
  - New applications of technology
  - Draft fundamental requirements being considered for inclusion in the Guidelines

- Available only to subscribers (www.fgiguidelines.org)

FGI – Beyond Fundamentals Resource Library

Sampling of Resources

- Guidance on low-acuity patient treatment pods in ED
- Checklist for accommodations for geriatric ED patients
- Design of hybrid operating rooms
- White papers, tools and webinars on applying the Guidelines
- Design insights for palliative care settings
- White paper on how to create a functional program
- White paper on patient handling & movement assessment

FGI – 2018 Guidelines and Beyond Fundamentals

- A subscription to Beyond Fundamentals is included with an annual single-user license or site license for all 2018 Guidelines documents through MADCAD and offered to other purchasers as a $25/year subscription, except $65/year for subscribers who purchase a site license to the 2010 or 2014 edition.

Questions?

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