Phase 1 Patient Handling and Movement Needs Assessments and Planning Challenges

Panel Discussion
Introduction

Moderator
- Kevin Wyrsch, AIA
  - Principal, Isgenuity LLC, Boston, MA

Panelists
- Theresa Harris, AIA, ACHA, NCARB, EDAC, LEED AP BD+C
  - Principal and Director of Healthcare Planning, Isgenuity LLC, Boston, MA
- Meghan Church, PT, DPT
  - Safe Patient Handling Clinical Coordinator, Beth Israel Deaconess Medical Center, Boston, MA
- Caitlyn Angelini, PE
  - Senior Code Consultant, AKF Group LLC, Boston, MA
- Melissa Aureli
  - Director of Facilities Planning and Space Management, Boston Children's Hospital
Learning Outcomes

- Explain key elements of a Patient Handling and Movement Assessment (PHAMA), what it is, who is involved, when they are undertaken, why they are important, and how and where they should take place.

- Describe existing tools and current best practices for undertaking a Patient Handling and Movement Assessment.

- Identify some of the biggest challenges existing facilities face in retrofitting to meet the new requirements listed in the FGI guidelines.

- Describe specific examples where accessibility codes conflict with the specific checklist requirements for patients of size, and potential approaches to resolving the conflicts.
What is PHAMA?

- **Patient Handling And Movement Assessment**
- **PHAMA** is a component of the Safety Risk Assessment in FGI (Facility Guidelines Institute): Guidelines for Design and Construction of Hospitals or Outpatient Facilities
- April 2010: FGI PHAMA White Paper Published
- Section 1.2-4.3 FGI Guidelines 2018 ed. requirement.
1.2-4.1.3 SRA Responsibility and Scope

The safety risk assessment shall be initiated and managed by the governing body during the planning phase of the project and shall 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.

“A Patient Handling and Movement Assessment (PHAMA) is conducted to direct & assist the design team in incorporating appropriate patient handling and movement (PHAM) equipment into the healthcare environment.”

Two Phases of PHAMA (section A1.2-4.3)

- **Phase 1**: A patient handling, movement, and mobility needs assessment is performed to identify appropriate patient handling and movement equipment for each patient care area.

- **Phase 2**: The space, structural, and other design requirements needed to accommodate patient handling and movement equipment and to facilitate patients’ weight-bearing and physical activity are determined.
Who is involved in PHAMA?

- Assemble a PHAMA team: A1.2-4.3.1.1 (1)
  - Front line staff
  - Unit/area nurse manager
  - Experts in risk management, safety, and/or ergonomics
  - Facility design construction staff
  - Rehabilitation staff
  - Infection control staff
  - Housekeeping / maintenance staff
  - Design team representative
  - Other
Where is a PHAMA needed?

- All Areas Affected by a Project: 1.2-4.3.1.1 (1)
- PHAMA results & recommendations shall be specific to each Patient Care Area and Any Other Area where patient handling and movement occur 1.2-4.3.1.2 (1)
National Institute for Occupational Safety and Health (NIOSH)

For most patient lifting tasks, 35 lb is the recommended maximum manual weight lifting limit

- Inclusive of all patients, not just patients of size

Even less recommended when lifting happens under less ideal circumstances

Not total patient weight

- How much does a leg weigh?
- How much does an arm weigh?
BIDMC Journey

- 673 licensed beds
  - 493 med/surg beds
  - 77 critical care/ICU beds
  - 62 OB/GYN beds

- 12,000 employees
  - 8,400 employees with patient contact

2008
- Pilot Program: 6 ceiling lifts for 8 beds & 3 portable lifts
- New surgical unit opening, full coverage of ceiling lifts

2009
- ICU equipment fair
- Trial ICU completed installation of ceiling lifts

2010
- ICU ceiling lift installations start
- Med/Surg units portable lift roll out starts
- Radiology begin ceiling lifts

2011
- ICU installation complete
- Med/Surg units began ceiling lift installation

2012
- All med/surg units have portable lifts
- Ambulatory begin portable lifts

2013
- ED part 1
  - Ceiling lifts in autopsy

2014
- Med/Surg units full installation except 4 specialty beds

2015
- Ceiling lifts installed in PACUs

2016
- 100% coverage of med/surg beds with ceiling lifts
- ED part 2

2017

2018
- ED part 3

NEHES
New England Healthcare Engineers' Society
Tools and Best Practices

- Needs Assessment Process
  - Utilize Surveys & Assessments
- Assessment of Risks for Patient Population
APPENDIX H
Clinical Unit/Area Characteristics and Ergonomic Issues Survey

Type of Unit/Area: ___________________________  Facility: ___________________________

PART 1—SPACE/Maintenance/Storage

a. Describe the unit, including number of beds, room configurations (private, semi-private, 0 bed, etc.) and toilet rooms:
   # rooms __/ 2 beds: ___/ 3 beds: ___/ 4 beds: ___/ private: ___

b. Describe storage conditions and problems you have with storage. If new equipment was purchased, where would it be stored?

Identify anticipated changes in the physical layout of your unit, such as planned unit renovations in next two years.

Identify constraints for patient care tasks and use of portable equipment: focus on patient rooms, toilet rooms, stairs, elevators, kitchen, and bathroom areas. Are patient rooms/doorways narrow or awkward? Are the showers accessible?

Describe any routine equipment maintenance programs or procedures for storing equipment. What is the reporting mechanism for identifying, logging, and getting broken equipment to the shop for repair? Is equipment as per schedule?

If the potential for installation of overhead lifting equipment exists, describe any structural factors that may influence this installation, such as structural limitations, lighting, HVAC, AC units, the presence of ceilings, etc.

PART 2—STAFFING

a. Footfall load times: (Think about the time of day that’s the busiest. What is the number of staff that would be lifting at that time?)

b. Discuss projected plans or upcoming changes in staffing, patient population, or bed closures in the next two years.

PART 3—PATIENTS/RESIDENTS

a. Describe the average patient/resident on your unit (age range, activities, TBI, etc.) and variability in this.

b. Discuss proposed changes in the average daily census over the next two years.

c. Identify typical distribution (%) of patients by physical dependence level according to the definitions below:

<table>
<thead>
<tr>
<th>Level</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total dependence</td>
<td>Cannot help at all with transfers, full staff assistance for activity during entire seven-day period, requires total transfers at all times</td>
</tr>
<tr>
<td>Extensive assistance</td>
<td>Can perform part of activity, usually can follow simple directions, may require hands-on, can lower some weight, sit up with assistance, has some upper body strength, or may be able to pivot transfer. Does not provide three or more minutes of weight-bearing assistance or have required total transfer</td>
</tr>
<tr>
<td>Limited assistance</td>
<td>Highly involved in activity, able to pivot transfer, and has considerable upper body strength and bears some weight on legs. Can sit up well, but may need some assistance. Limited maneuvering of body or other non-weight-bearing assistance three or more times, or help provided once per week, during the last seven days</td>
</tr>
<tr>
<td>Supervision</td>
<td>One-way, encouragement, or assistance provided three or more times during the last seven days, or physical assistance provided only once or twice during the last seven days</td>
</tr>
<tr>
<td>Independent</td>
<td>Can ambulate normally without assistance, but in unusual situations may need some limited assistance. Help during overnight may have been provided once or twice in the last seven days</td>
</tr>
</tbody>
</table>

This table is a modified from Figure 3-1: ProSide Visit Stat Profile in A. Sobeski, ed., Patient Care: Ergonomic Resource Guide: Safe Patient Handling and Movement Chapter 3, p. 24 [Veterans Affairs Administration Patient Safety Center of Inquiry, 2003]. Available at wwwclfdocs.va.gov/psco/pscojournals/AllOfns/Handling.pdf

Table H.1: Physical Dependency Levels of Patient Population

PART 4—PATIENT HANDLING INJURIES

How much time does it take to complete Tool 2: Unit Area Incident/Breakdown Profile?

PART 5—EQUIPMENT

a. The Tool: Unit Patient Handling Equipment Inventory to provide an inventory of all patient care equipment. This should include a description of the working condition of each piece of equipment and how frequently it is used.

b. What percentage of high risk tasks is completed using proper equipment? Why?

c. Identify your problem areas.

d. What equipment do you think you need?

Form completing report:

Name: ___________________________  Date: ___________________________

Title: ___________________________  Phone #: ___________________________

(See this form is a revision of Figure 3-1: ProSide Visit Stat Profile in A. Sobeski, ed., Patient Care: Ergonomic Resource Guide: Safe Patient Handling and Movement Chapter 3, p. 24 [Veterans Affairs Administration Patient Safety Center of Inquiry, 2003]. Available at wwwclfdocs.va.gov/psco/pscojournals/AllOfns/Handling.pdf)
Needs Assessment Process

- Perception of High-Risk Tasks Survey
- Unit/Area Incident/Injury Profile
- Unit Patient Care Equipment Inventory

Available in 2010 FGI PHAMA Whitepaper

Tool 1: Perception of High-Risk Tasks Survey

Instructions: Assign a rank (1 through 10) to the task you consider to be the highest risk task contributing to musculoskeletal injuries for persons providing direct patient care. (A 1 should represent the highest risk and a 10 the lowest.) Consider the frequency of the tasks (High, moderate, low) and the musculoskeletal stress (high, moderate, low) when assigning a rank. These tasks may or may not be included in your facility’s risk assessment criteria. Complete the form and communicate the data, so you can have staff work together to identify the highest risk tasks.

<table>
<thead>
<tr>
<th>Task</th>
<th>Frequency</th>
<th>Stress of Task</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transferring patient from bed to chair</td>
<td>High</td>
<td>High</td>
<td>1</td>
</tr>
<tr>
<td>Transferring patient from wheelchair to chair or mobile stretcher</td>
<td>Moderate</td>
<td>Low</td>
<td>2</td>
</tr>
<tr>
<td>Lifting patient up from the floor</td>
<td>Low</td>
<td>Low</td>
<td>3</td>
</tr>
<tr>
<td>Walking patient</td>
<td>High</td>
<td>High</td>
<td>4</td>
</tr>
<tr>
<td>Bathing patient in bed</td>
<td>Moderate</td>
<td>Moderate</td>
<td>5</td>
</tr>
<tr>
<td>Bathing patient in a shower chair</td>
<td>Low</td>
<td>Low</td>
<td>6</td>
</tr>
<tr>
<td>Applying and removing stockings</td>
<td>Moderate</td>
<td>Moderate</td>
<td>7</td>
</tr>
<tr>
<td>Lifting patient to the head of the bed</td>
<td>High</td>
<td>High</td>
<td>8</td>
</tr>
<tr>
<td>Repositioning patient in bed (side to side)</td>
<td>Low</td>
<td>Low</td>
<td>9</td>
</tr>
<tr>
<td>Repositioning patient in bed (stoop to bed)</td>
<td>Moderate</td>
<td>Moderate</td>
<td>10</td>
</tr>
<tr>
<td>Making occupied bed</td>
<td>Low</td>
<td>Low</td>
<td>11</td>
</tr>
<tr>
<td>Bedding bedside patient</td>
<td>Moderate</td>
<td>Moderate</td>
<td>12</td>
</tr>
<tr>
<td>Changing patient’s position</td>
<td>High</td>
<td>High</td>
<td>13</td>
</tr>
<tr>
<td>Other tasks</td>
<td></td>
<td></td>
<td>14</td>
</tr>
</tbody>
</table>

Tool 2: Unit Patient Care Equipment Inventory

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Manufacturer/Style/Name</th>
<th>Inventory #</th>
<th># in Working Order</th>
<th>% of Being Used (Correctly)</th>
<th># Replaced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-body lifting lift</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfer/transfer table</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lift-assisted transfer aids</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tool 3: Unit Patient Care Equipment Inventory

<table>
<thead>
<tr>
<th>Facility</th>
<th>Patient Care Activity</th>
<th>Cause of Injury</th>
<th>Type of Injury</th>
<th>Body Part(s)</th>
<th>Location</th>
<th>Lost Time</th>
<th>Modified Daily Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility</td>
<td>Patient Care Activity</td>
<td>Cause of Injury</td>
<td>Type of Injury</td>
<td>Body Part(s)</td>
<td>Location</td>
<td>Lost Time</td>
<td>Modified Daily Use</td>
</tr>
<tr>
<td>Facility</td>
<td>Patient Care Activity</td>
<td>Cause of Injury</td>
<td>Type of Injury</td>
<td>Body Part(s)</td>
<td>Location</td>
<td>Lost Time</td>
<td>Modified Daily Use</td>
</tr>
</tbody>
</table>

References:
- NEHES
- Bick U, et al. (2009, Nov 1, 11569)
Needs Assessment Process

- Departmental Lift Assessments

<table>
<thead>
<tr>
<th>Facility - Ancillary Departments Needs Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Radiology Assessment</strong></td>
</tr>
<tr>
<td>Unit Manager</td>
</tr>
<tr>
<td>Number of rooms:</td>
</tr>
<tr>
<td>Inpatient%:</td>
</tr>
<tr>
<td>Outpatient%:</td>
</tr>
<tr>
<td>Ambulatory %:</td>
</tr>
<tr>
<td>#/day need wheelchair to table lift</td>
</tr>
<tr>
<td>#/day need stretcher to table transfer</td>
</tr>
<tr>
<td>What is the most physically demanding task done on this unit?</td>
</tr>
<tr>
<td>Current method for lateral transfer:</td>
</tr>
<tr>
<td>Current method for transfer from wheelchair:</td>
</tr>
<tr>
<td>Number of times that department has 400+ lb patients in each year:</td>
</tr>
<tr>
<td>Description of transporter process:</td>
</tr>
<tr>
<td>Equipment needs:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Facility - Ancillary Departments Needs Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Therapy</strong></td>
</tr>
<tr>
<td>Unit Manager</td>
</tr>
<tr>
<td>Contact for assessment</td>
</tr>
<tr>
<td>Number of Physical Therapists, O.T., PTA</td>
</tr>
<tr>
<td>Number of patients seen per month</td>
</tr>
<tr>
<td>Highest injury risk rating:</td>
</tr>
<tr>
<td>How many hours per month of rehab time is spent on staff rehabilitation from work related injuries?</td>
</tr>
<tr>
<td>Equipment needed in PT:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Facility - Ancillary Departments Needs Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating Room Assessment</strong></td>
</tr>
<tr>
<td>Unit Manager</td>
</tr>
<tr>
<td>Number of O.R. Suites</td>
</tr>
<tr>
<td>Number of procedures per month</td>
</tr>
<tr>
<td>Most physically demanding task done on this unit?</td>
</tr>
<tr>
<td>How are lateral transfers currently performed?</td>
</tr>
<tr>
<td># Patients over 400+ lbs each year</td>
</tr>
<tr>
<td>Types of transfer device (and quantity) available to DR</td>
</tr>
<tr>
<td>Description of transporter process:</td>
</tr>
<tr>
<td>Do you perform bariatric surgery?</td>
</tr>
<tr>
<td>Is this a walk-in hospital?</td>
</tr>
<tr>
<td>Majority of patients +/- XXX lbs?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Facility - Ancillary Departments Needs Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ED Assessment</strong></td>
</tr>
<tr>
<td>Unit Manager</td>
</tr>
<tr>
<td>Number of ED Sources</td>
</tr>
<tr>
<td>Birth year</td>
</tr>
<tr>
<td>Number of ED Operating rooms</td>
</tr>
<tr>
<td>What is the most physically demanding task done on this unit?</td>
</tr>
<tr>
<td>Bariatric accessible</td>
</tr>
<tr>
<td>Number of times per day that staff assists unstable patient to bathroom</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Facility - Ancillary Departments Needs Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Morgue</strong></td>
</tr>
<tr>
<td>Unit Manager</td>
</tr>
<tr>
<td>How are the patients moved?</td>
</tr>
<tr>
<td>Are devices available?</td>
</tr>
<tr>
<td>Are hooks intended to aid with lower extremities?</td>
</tr>
<tr>
<td>How are patients loaded in morgue?</td>
</tr>
<tr>
<td>Describe patient movement from morgue to storage spot, then to exam table, then back to storage spot</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Facility - Ancillary Departments Needs Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equipment needs</strong></td>
</tr>
</tbody>
</table>

New Hampshire Engineering Society
Needs Assessment Process

- Checklists, surveys, and form don’t always explain the whole picture
  - Pros and Cons
- Open ended questions / staff interviews are important
Data Gathering- Number of patients in risk categories:
- considered overweight, obese, morbidly obese
- considered disabled, severely disabled, needing assistance
- who fall in age ranges 65-69, 70-74, 75-79, 80+
- taking prescriptions for dizziness, vertigo, visual impairment, sedation, other side effect hindering mobility
- in rehabilitation for post-surgery or injury-related conditions which hinder mobility

Experience and Advice
- Interviewing and observing staff working with immobile, mobility challenged, fall risk individuals
- Understanding of current policies and procedures
- Formalizing lift teams (“super users” / best knowledge of equipment)
- Reflecting on problems experiences to prevent in the future
Accommodations for Patients of Size

- Projections Needed for given Patient Population:
  - Weight Capacities of Patients of Size to be Served
  - Number of Spaces required to accommodate Patients of Size
  - Number of Expanded Capacity Lifts Required
  - Obesity Prevalence Data
    - CDC Future Projections by Geographic Area
  - Historical Facility Data by Clinical Area
    - At least one year’s worth of data - patient weight, BMI

Patient of size: A person whose height, body width, weight, and weight distribution throughout the body require increased space for care and mobilization as well as for use of expanded-capacity devices, equipment, furniture, technology, and supplies. Note: Such patients are not necessarily receiving bariatric care, thus, the term “patient of size” is often used in place of obese, morbidly obese, or bariatric.

Bariatric patients: Persons overweight by more than 100 lbs. or with a body weight greater than 300 lbs., or (more commonly) with a body mass index (BMI) greater than 40.
Retrofitting Existing Facilities (or designing new)

- Planning Challenges
  - FGI Applicable Regulations
  - Clearance Requirements - Outpatient & Inpatient
  - Accounting for Patient Handling Equipment
  - Accommodations for Patients of Size

![Image of medical equipment and staff]
Applicable Regulations

- FGI Guidelines
  - Local DPH Checklists
- The Americans With Disabilities Act Standards for Accessible Design
  - Local accessibility codes
- International Building Code
  - Local building code amendments
Outpatient Guidelines - FGI

- Mass. DPH: OP-1
- Outpatient Medical Services Facilities
- From FGI Guidelines re: Care of Patients of Size

OP-5 & OP-6: Imaging (Classes 1-3)
OP-7: Urgent Care Centers
OP-8: Infusion Centers
OP-10: Surgery Centers
OP-11: Procedure Sites
OP-12: Endoscopy Facilities
OP-13: Freestanding Emerg. Care
OP-14: Renal Dialysis Centers
OP-17: Rehabilitation Therapy
Outpatient Guidelines - Clearances

- Single Patient Rooms
  - 5’-0” clearance at exam table foot
  - 3’-0” clearance on non-transfer side
  - 5’-0” clearance on transfer side with ceiling or wall mounted lift OR
  - 7’-0” clearance on transfer side without ceiling or wall mounted lift
Inpatient Guidelines - FGI

- Mass. DPH: IP-1
- Medical Surgical Patient Care Unit
- From FGI Guidelines re: Care of Patients of Size
- IP-12 Emergency Services
- IP-28: Rehabilitation Hospitals
## Inpatient Guidelines - Clearances

- **Expanded Capacity Patient Rooms**
  - 5’-0” clearance at bed table foot
  - 5’-6” clearance on non-transfer side of expanded capacity bed
  - 10’-6” x 5’-6” clearance on transfer side beginning 2’-0” from headwall with ceiling or wall mounted lift, OR
  - 10’-6” x 7’-0” clearance on transfer side beginning 2’-0” from headwall without ceiling or wall mounted lift

#### Table: Space Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lift system (e.g. ceiling- or wall-mounted system) in rooms designated for</td>
<td>care of patients who weigh 600 lbs. or more</td>
</tr>
<tr>
<td>check if not included in project</td>
<td>can transfer patient from bed to toilet</td>
</tr>
<tr>
<td>2.1-2.3.2.2 Space Requirements:</td>
<td></td>
</tr>
<tr>
<td>(2)(a)</td>
<td>min. clearance 5’-0” at foot of bed</td>
</tr>
<tr>
<td>(2)(b)</td>
<td>min. clearance 5’-6” on non-transfer side of bed from edge of expanded-capacity</td>
</tr>
<tr>
<td>(2)(c)</td>
<td>patient bed</td>
</tr>
<tr>
<td>Clearance on Transfer Side of Bed:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>patient room equipped with ceiling- or wall-mounted lifts</td>
</tr>
<tr>
<td></td>
<td>rectangular clear floor area min. 10’-6” long by 5’-6” wide measured</td>
</tr>
<tr>
<td></td>
<td>beginning 2’-0” from headwall</td>
</tr>
<tr>
<td></td>
<td>or</td>
</tr>
<tr>
<td></td>
<td>patient room not equipped with ceiling- or wall-mounted lifts</td>
</tr>
<tr>
<td></td>
<td>rectangular clear floor area min. 10’-6” long by 7’-0” wide measured</td>
</tr>
<tr>
<td></td>
<td>beginning 2’-0” from headwall</td>
</tr>
</tbody>
</table>
How were Clearances Derived?

- FGI Health Guidelines Revision Committee (2015) Workshop on Bariatric Accommodations
- Mobile Lift Bed Transfers

Info available in 2016 FGI - Beyond Fundamentals: Clearances for Providing Safe Care for Patients of Size
How were Clearances Derived?

- FGI Health Guidelines Revision Committee (2015) Workshop on Bariatric Accommodations
- Toilet Transfers

Info available in 2016 FGI - Beyond Fundamentals: Clearances for Providing Safe Care for Patients of Size
Inpatient Guidelines - Clearances

- **Shower Facilities**
  - 4’-0” x 6’-0” minimum size
  - 800 lb grab bar capacity

- **Door Openings**
  - 45.5 in. all door openings in path of travel to public areas AND areas where care will be provided for patients of size
  - Includes doors to toilet rooms designated for patients of size
  - 57” clear width to patient rooms
### Code Conflicts - Door Clearances

<table>
<thead>
<tr>
<th>Accessibility Minimums</th>
<th>Healthcare Life Safety Minimums</th>
<th>Patient Of Size Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 ADA</td>
<td>2017 ANSI A117.1</td>
<td>2018 IBC</td>
</tr>
<tr>
<td>32”</td>
<td>32”</td>
<td>41.5”</td>
</tr>
<tr>
<td>41.5”</td>
<td>41.5”</td>
<td>45.5”</td>
</tr>
<tr>
<td>57”</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- FGI addresses **access to** public areas, care areas for patients of size, and toilet rooms for patients of size
- FGI does not specifically address **egress routes**
Patient Handling Equipment

- Space for Patient Handling Itself (Maneuvering/Team)
- Outpatient/Ambulatory considerations
  - Portable equipment compatible with exam tables
  - Powered height-adjustable exam tables
- Storage of Movable Patient Handling Equipment
  - Walkers/canes/crutches/wheelchairs
  - Lateral transfer devices
  - Unique beds
  - Motorized stretchers/hydraulic gurneys
  - Repositioning aids
  - One-way slide chair cushions
  - Ergonomic shower chairs and commodes
  - Med Sleds
  - Transfer devices
  - Sling storage
- Centralized and easily accessible storage
Patient Handling Equipment

- Inpatient Rooms / Lifts
  - Built-in versus Portable Lifts
    - Structural implications (ceiling versus wall-mount)
  - Lift Sourcing
    - Interchangeability of ancillary equipment
  - Lift Capacity
    - Weight Requirements
  - Curtain Tracks
  - Booms
  - Lift Tracks into the Bathroom
ADA patient rooms and toilet rooms do not meet requirements for Patients of Size

Patients of Size rooms and toilet rooms do not qualify as ADA rooms

**Additional Requirements for Patients Of Size:**

- **Patient rooms:**
  - Clearances around bed
  - Door width

- **Toilet rooms:**
  - Toilet clearances
  - Floor mounted toilets v. wall mounted
  - Toilet weight capacity
  - Grab bar weight capacity
  - Turning radius
  - Door width
  - Location of sink
Accommodations for Patients of Size

- A Patient of Size Toilet Is Not an ADA Toilet
- Doors - 45.5 Min Clear Width to Public Areas along Entire Path to Care
Additional Design Considerations

- Waiting area seating
  - Furniture with greater weight capacity
  - Furniture with greater seating width
  - Percentage of seating to accommodate patient of size
    - Bariatric and cardiac units may need more than others

- Elevators
  - Cab size
  - Cab weight capacity
  - Door width

- Means of Egress
  - Door widths
  - Corridor widths

- Handwashing Stations
  - Cabinet vs Wall Mount
    - Downward static force to accommodate maximum patient weight

- Airborne Infection Isolation (AII) Room
  - At least one to accommodate patient of size if have All room
  - Design to ADA or patient of size?
    - Conflict ADA toilet location and patient of size location

![Diagram](image)
BCH Waltham - Multiyear Radiology Master Plan Project

- Project Scope Includes
  - Additional Modalities
  - End of Life Equipment Replacements
- First 4 Phases were submitted to DPH before Spring 2018 - No PHAMA
- Phase 5 - New Fluoroscopy. Submitted to DPH in June 2019, with No PHAMA, based on earlier feedback received
- Plan Review Letter requested PHAMA analysis be completed
Multidisciplinary Team assembled for DPH response

- New DPH Requirement = Learning Curve for All Team Members
  - Level of detail required by DPH & format of response not known

- Clinical Team Conducted Lift Mock Up in Existing/Similar Fluoro Room
  - Demonstrated incompatibility of portable lift and table height
  - Led to Clinical Team’s request for additional scope, impacting budget, redesign and schedule

- Patient of Size Response Remains In Discussion
  - Investigating a scheduling solution where Patients of Size are diverted to Main Campus Fluoro, until future Phase is complete that will include a Patient of Size Toilet
Originally designed Clearances were able to accommodate the Ceiling Mounted Lift
New Plan - Transverse Ceiling Lift

Outboard of X-ray ceiling track
Q & A

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