Bariatric Mobility and Safe Patient Handling

Strategies to improve safety, dignity, and outcomes in patients with obesity

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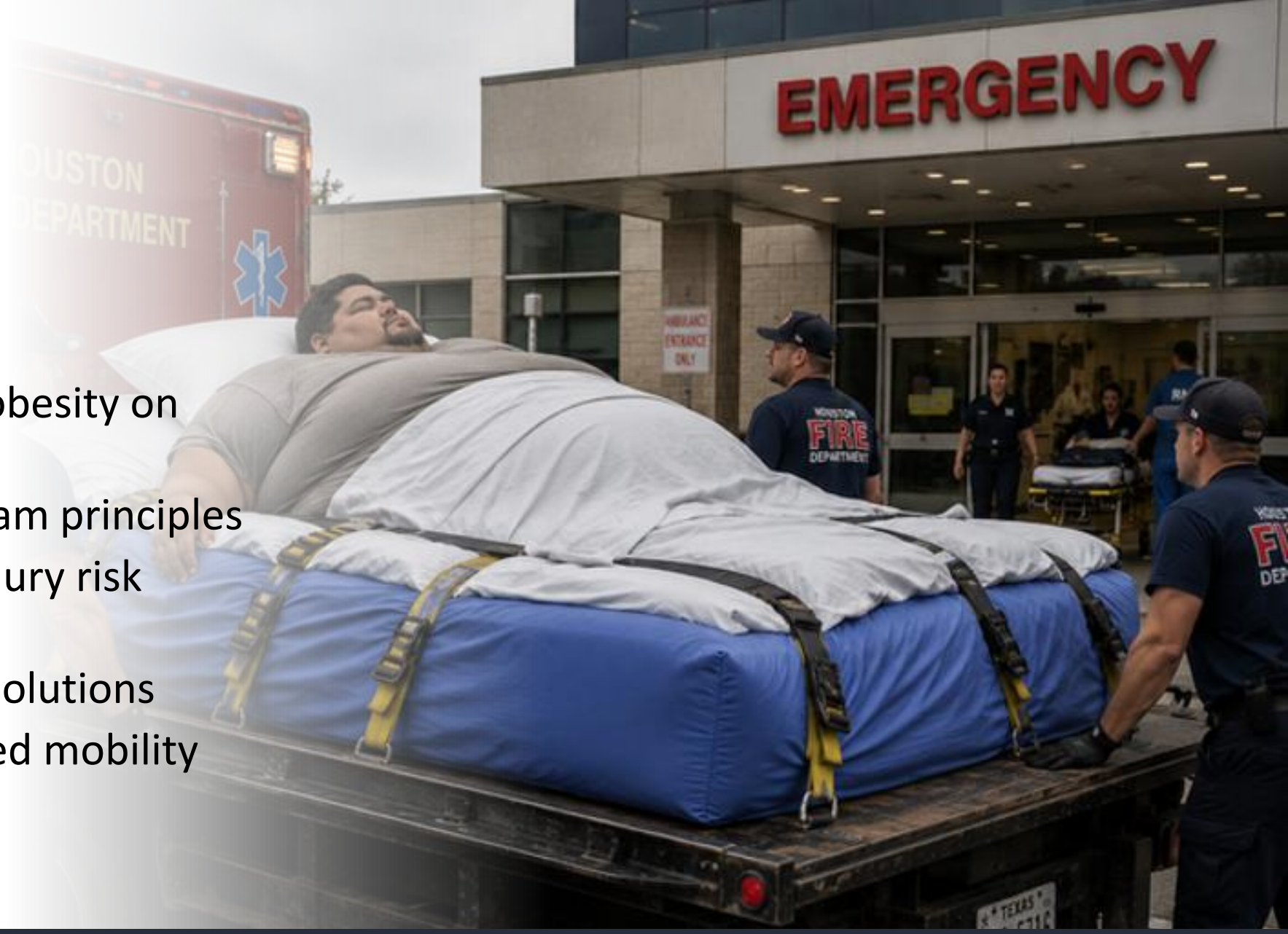
What we'll do!

- Rising prevalence of obesity in healthcare
- Impact on mobility and care delivery
- Need for safe patient handling systems
- Focus on bariatric mobility strategies

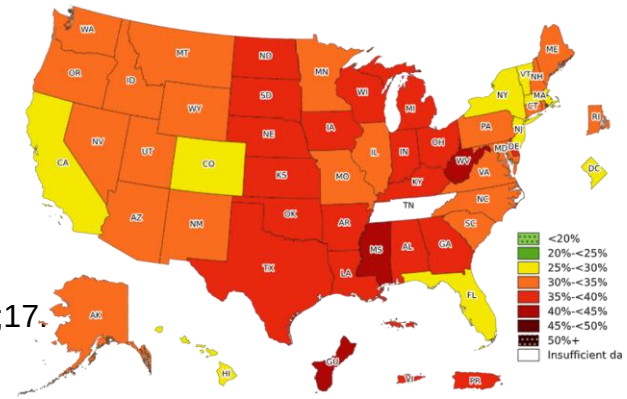
Learning objectives



- Describe impact of obesity on mobility
- Explain SPHM program principles
- Identify caregiver injury risk factors
- Discuss equipment solutions
- Apply evidence-based mobility strategies

Obesity in Healthcare

- Global obesity prevalence increasing
- Growing number of hospitalized patients with obesity
- Implications for mobility and equipment needs



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Gallagher S. The frequency and severity of obesity in US hospitals. *Jour Assoc Occupational Health Professionals*. 2024:44(1);17.
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Audience Poll

Does your facility have a formal Safe Patient Handling Program

A. Yes

B. No

C. In development

D. Unsure

Bariatric Equipment Overview

- Ceiling lifts
- Mobile lifts
- Bariatric beds
- Transfer devices

Equipment Selection Criteria

- Weight capacity
- Patient comfort
- Space requirements
- Staff training needs

Operational Challenges

- Equipment limitations
- Environmental constraints
- Staffing needs
- Training gaps

Case Scenario

Michael is a 33-year-old male weighing 425 pounds (284 kg) with severe obesity and central obesity.

His medical history includes: Class III obesity, chronic lower-extremity lymphedema, OSA, hypertension, Type 2 diabetes

Michael is admitted through the Emergency Department with: Fever, chills, elevated WBC count, severe cellulitis involving his left arm following an insect bite. His arm is painful, swollen, erythematous, and warm to the touch.

Case Scenario – Prevent Decline

Assessment reveals: Unable to reposition independently, Limited trunk control, Poor endurance, Significant muscle atrophy, Joint stiffness throughout hips, knees, ankles, and shoulders, Shortness of breath with minimal exertion, High risk for pressure injury, High risk for VTE, Fear of movement due to years of inactivity

The rehabilitation team reframes the discussion:

- "The first goal is not walking. The first goal is movement.“
- Because Michael has been bedbound for five years, even small gains are clinically significant.

Impact on Mobility

- Reduced functional capacity
- Greater immobility risk
- Increased pressure injury risk
- Longer hospital stays

Technology options

Case Scenario

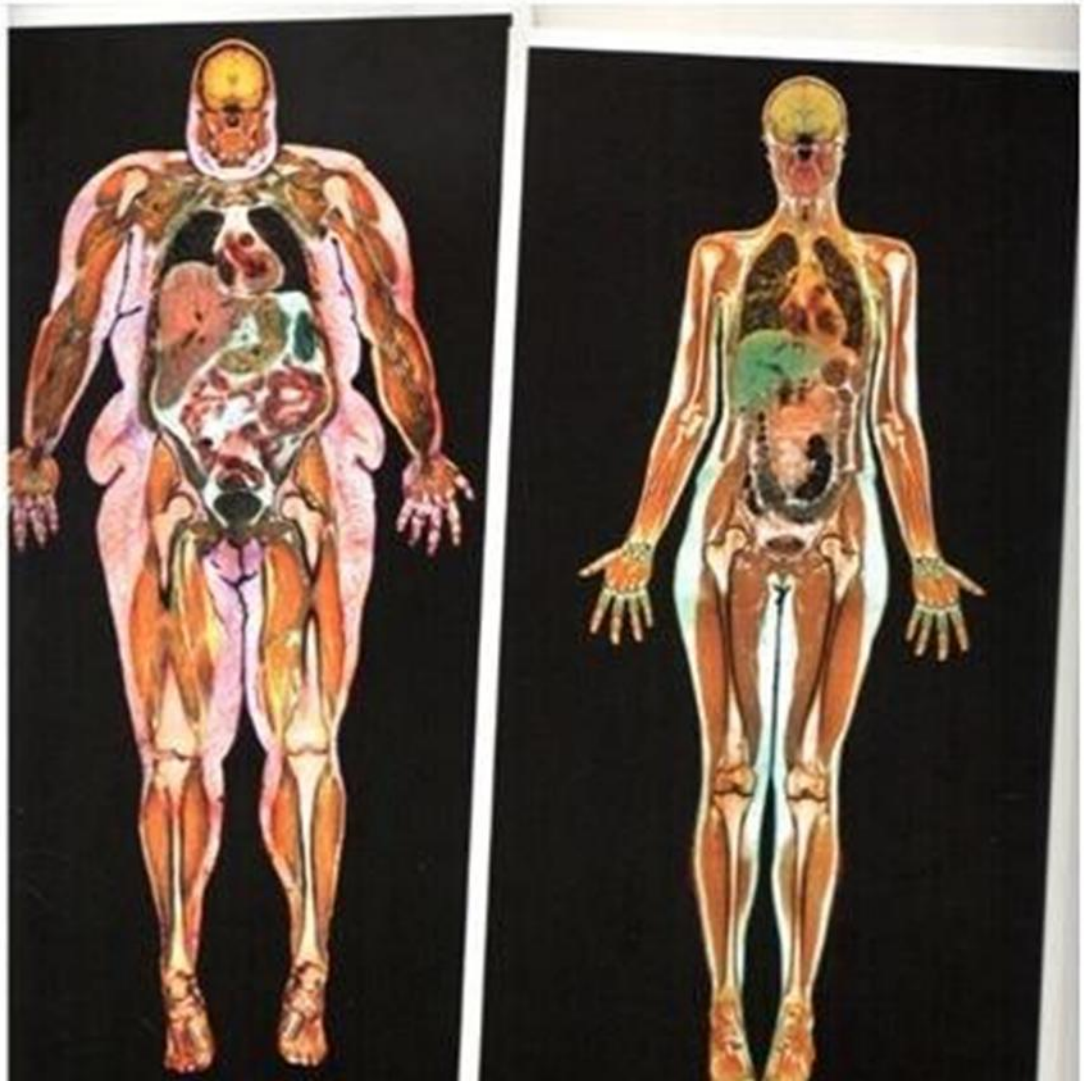
Sepsis – Respiratory Deterioration

Respiratory Considerations

- Reduced lung compliance
- Increased work of breathing
- Impact on mobility tolerance
- Need for coordinated respiratory care

Think about the Lungs

- “Ideal body weight” ventilation
- What about positioning?
  - Prone
  - Reverse Trendelenburg
  - Verticalization



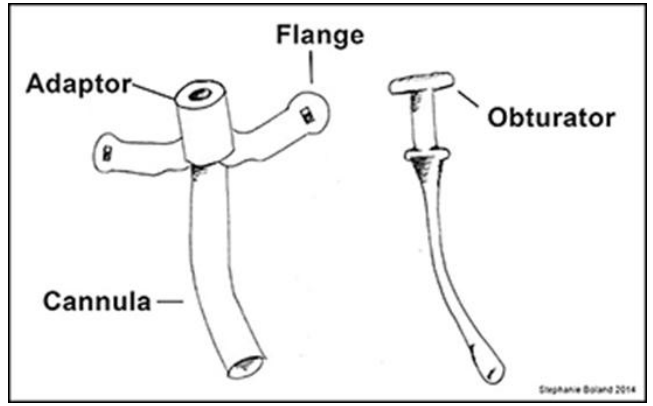
Mobility

- How are you getting your patient out of bed?
- How are you going to walk your patient (walker or sling)?
- How are you going to support equipment (IV pump, vent, cardiac monitor)?

Mobility

- Technology options
  - Walking aid
  - Ventilator
  - IV Pumps
- Unexpected situations
  - What about sudden weakness?
  - What about a code situation?

Airway Management



Source: K.J. Knoop, L.B. Stack, A.B. Storrow, R.J. Thurman:
The Atlas of Emergency Medicine, 4th Edition,
www.accessemergencymedicine
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Key Points

- Sepsis can rapidly transform a stable hospitalization into a life-threatening emergency.
- Patients with severe obesity have reduced respiratory reserve and may deteriorate quickly during systemic infection.
- Early recognition and treatment of sepsis, combined with evidence-based respiratory support, are essential to survival.
- Progressive mobility should continue whenever clinically feasible—even in the ICU—to minimize deconditioning and ICU-acquired weakness.
- Safe patient handling technology enables rehabilitation to continue during critical illness while protecting both patients and caregivers.
- Successful recovery depends on coordinated multidisciplinary care involving nursing, respiratory therapy, physical and occupational therapy, physicians, wound care, and safe patient handling specialists.

Case Scenario

Case Scenario – Prevent Further Decline

Assessment reveals: Unable to reposition independently, Limited trunk control, Poor endurance, Significant muscle atrophy, Joint stiffness throughout hips, knees, ankles, and shoulders, Shortness of breath with minimal exertion, High risk for pressure injury, High risk for VTE, Fear of movement due to years of inactivity

The rehabilitation team reframes the discussion:

- "The first goal is not walking. The first goal is movement.“
- Because Michael has been bedbound for five years, even small gains are clinically significant.

Case Scenario – Prevent Further Decline

- Standing is not the initial goal
- The pannus itself becomes a mobility barrier
- Positioning equipment is critical
- Edge of bed sitting requires thoughtful planning
- Ceiling lift technology becomes even more valuable

Case Scenario – Movement is Mobility

Task:

- Turning
- Bridging
- Reaching
- Sitting upright in bed
- Participating in repositioning
- Tolerating head-of-bed elevation
- Activating trunk muscles

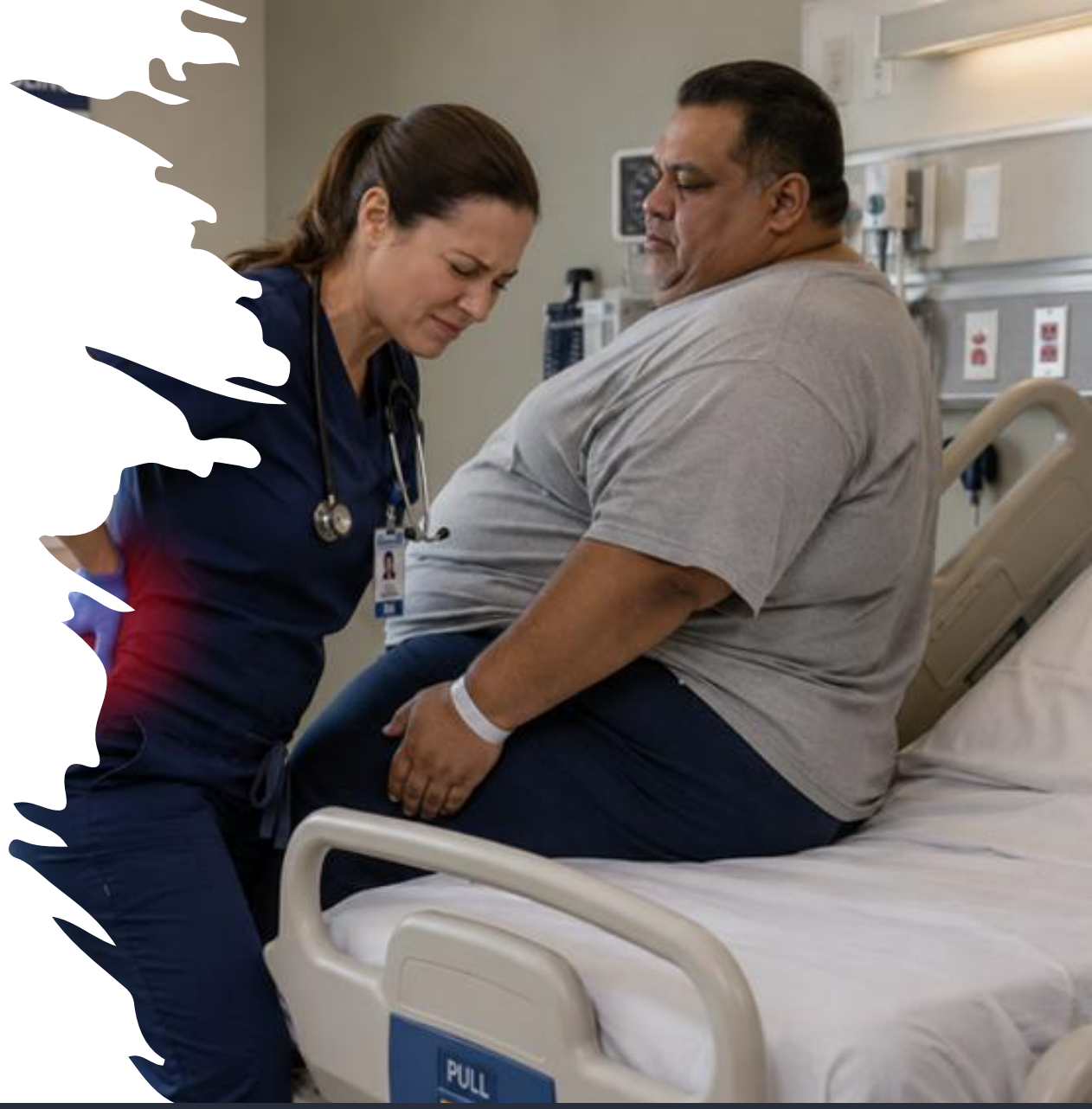
Case Scenario – Movement is Mobility

Result:

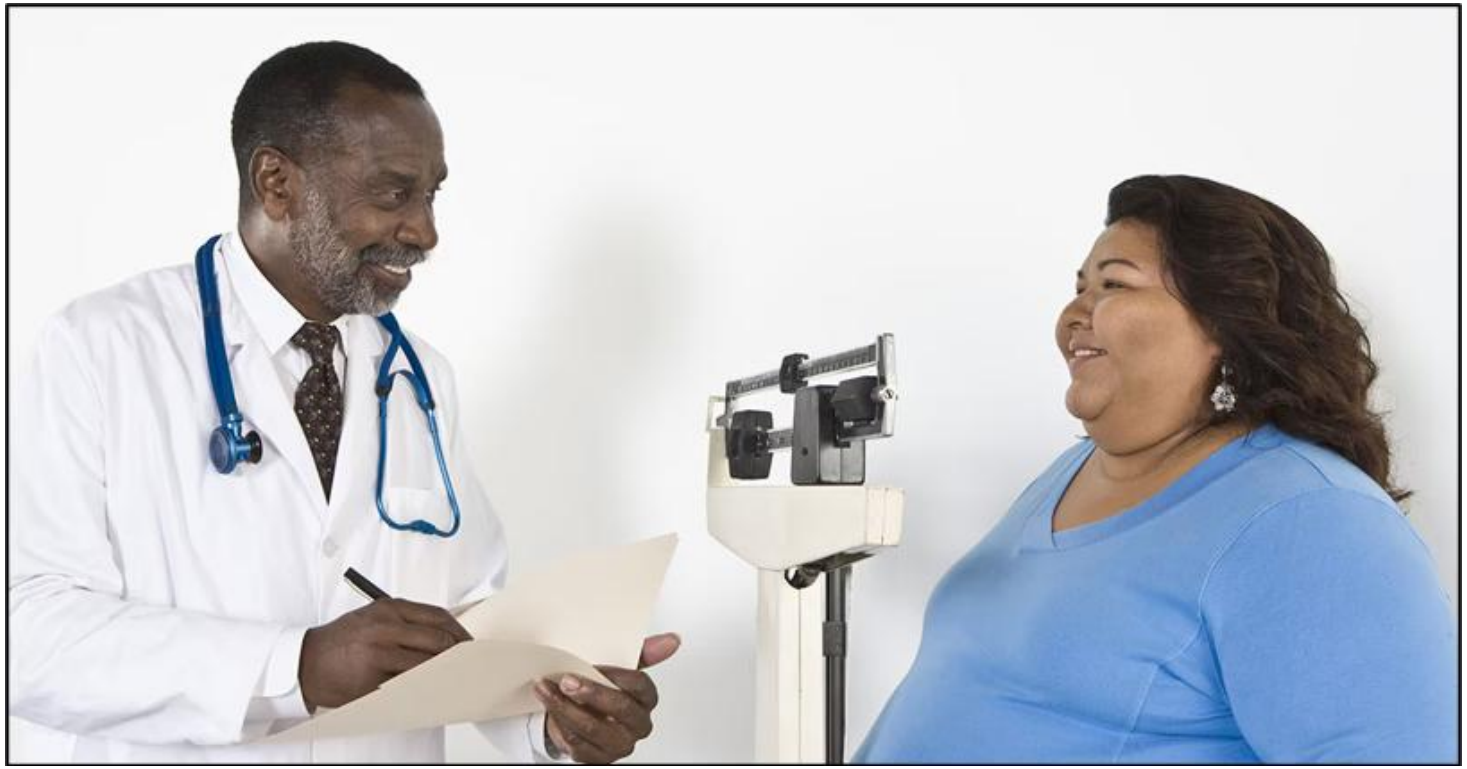
- Skin integrity
- Pulmonary function
- Venous return
- Strength
- Confidence

Risks to Healthcare Workers

- Musculoskeletal injury prevalence
- Manual lifting biomechanical risks
- High injury rates in nursing staff



Case Scenario



Case Scenario

Case Scenario

Hospice

Hospice

SPH*M* Initiatives

- Reduce caregiver injuries
- Improve patient mobility
- Support safety culture
- Require culture, policy, equipment, training, outcomes

SPH*M* Workflow

- Assess patient mobility
  - Level of assistance
- Select appropriate equipment
- Perform assisted movement
- Monitor patient response

Polling Question

What is the biggest barrier to mobility in your facility?

A. Equipment
B. Staffing
C. Training
D. Space

Teamwork!

- Nursing
- Respiratory therapy
- Physical therapy
- Occupational therapy

The Team Approach

- Bedside nursing
- Bedside respiratory therapy
- Physical therapy
- Occupational therapy
- Safe Patient Handling and Mobility team
- Unit and hospital leadership

Implementation Strategy

- Leadership support
- Equipment investment
- Staff competency training
- Program evaluation

Benefits of Bariatric Mobility Initiative

- Improved patient outcomes
- Reduced caregiver injuries
- Enhanced dignity and safety
- Better operational efficiency

Key Takeaways

- Bariatric mobility requires specialized strategies
- SPHM programs reduce injuries
- Equipment and training are essential
- Interdisciplinary collaboration improves outcomes

Thank you!

Questions, Thoughts, Ideas

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References

- Basu et al., 2023
- De Jong et al., 2021
- Galinsky et al., 2021
- Martínez-Camacho et al., 2024
- Serpa Neto et al., 2024
- WHO, 2023

Technology option

PICS

Stop Focusing on the Pressure

- It is 2026 – let's get smart
- The tools are available, let's use them
- Esophageal pressure monitoring
  - Allows you to see what pressure the lungs are seeing – NOT what the vent is seeing
- "Failure to wean"
  - Has your patient walked? Have you tried standing your patient?