# The Value of Safe Patient Handling

Connecting the Dots to Quality Indicators & Injury Reduction

2013 American Nurses Quality Conference Atlanta, GA

- The Value of Safe Patient Handling
- Address complications related to immobility and opportunities to improve patient outcomes
  - We face challenges related to patient falls, facility-acquired pressure ulcers, and complications associated with patient immobility
- Explore cause and prevention of caregiver injury
  - Caregiver injury due to unsafe manual handling of patients is occurring at a high rate and has a significant financial impact
- Participate in safe lifting and moving tasks using lift equipment
  - Rotate through four lifting stations and discuss safe lifting techniques with the station expert.

Implementing a safe patient handling program can significantly impact operations:

- Patient Outcomes
- Pressure ulcers, Fall Prevention, Satisfaction Ratings, Care for the Bariatric Patient
- Nursing Productivity & Satisfaction
- Efficiency, time at the bed side, injury rates, morale, retention, recruitment and career longevity.
- Administrative Challenges
- Legislative compliance, community image, Employer of Choice, The Joint Commission, Magnet Journey, OSHA IR, DART, and OSHA surveys

## CURRENT PRACTICE INCLUDES MANUAL LIFTING DOES THIS LOOK FAMILIAR? IS THIS REALLY SAFE?

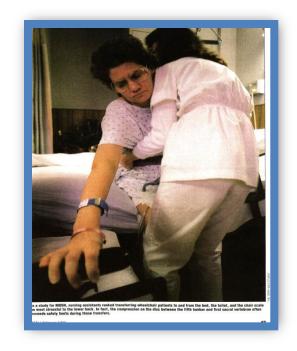








- A major area in need of improved safety is that of patient handling. Nurses lift an estimated 1.8 tons per 8 hour shift.<sup>1</sup>
- NIOSH recommends 35 pounds as the safe lifting limit for healthcare workers.
- Every day, staff make the unconscious trade-off to take on more personal risk for the immediate benefit of the patient, to avoid interrupting others, or to avoid using specialty lifting equipment not immediately available at the bedside.



<sup>1.</sup> InTuohy-Main K. Why manual handling should be eliminated for resident and caregiver safety. Geriaction. 1997;15:10–14.

#### THE CHALLENGE: CAREGIVER INJURIES RELATED TO PATIENT HANDLING IS HIGH

- In 2010, nursing aides, orderlies, and attendants experienced<sup>1</sup>
  - An incident rate of 249
     cases/10,000 full-time workers
     for musculoskeletal disorder
     (MSD) cases with days away
     from work
  - 27,020 MSD cases with days away from work
  - An incident rate of 283 cases/ 10,000 full-time workers for nonfatal occupational injuries and illnesses involving days away from work



Nonfatal occupational injuries and illnesses requiring days away from work, 2010 [press release]. Washington, DC: Bureau of Labor Statistics, US Department of Labor; November 9, 2011. http://www.bls.gov/news.release/pdf/osh2.pdf. Accessed 1/1/12.



- 62% indicated that suffering a disabling musculoskeletal injury was one of their top 3 safety concerns
- 56% experienced musculoskeletal pain that was caused/made worse by job
- 80% of nurses reported working despite experiencing frequent musculoskeletal pain



#### THE CHALLENGE: THE FINANCIAL IMPACT IS SIGNIFICANT

- In 2009, overexertion injuries caused by excessive lifting, pushing, pulling, holding, carrying, and/or throwing were the most expensive serious nonfatal workplace injuries, costing an estimated \$12.75 billion in workers' compensation costs<sup>1</sup>
- \$37,154 is the average cost of a lower back injury claim<sup>2</sup>
- **435,180** lost-time musculoskeletal injury claims were filed by healthcare workers in 2005<sup>3</sup>
- High injury rates could be linked to higher staff turnover rates<sup>3</sup>



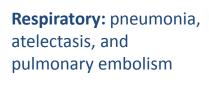
<sup>1. 2011</sup> Liberty Mutual workplace safety index. Liberty Mutual Research Institute for Safety website. http://www.libertymutualgroup.com/researchinstitute. Accessed 8/3/12.

<sup>2.</sup> Injury facts 2011 edition. National Safety Council website. http://www.nsc.org/Documents/Injury\_Facts/Injury\_Facts\_2011\_w.pdf. Accessed 8/17/12.

<sup>3.</sup> Charney W, Schirmer J. AAOHN J. 2007;55:470-475.

## THE CHALLENGE: MANY BODY SYSTEMS CAN BE ADVERSELY AFFECTED BY PROLONGED IMMOBILITY

## **Potential Complications of Immobility**



**Neurological:** depression and anxiety

# Cardiovascular: postural hypertension, cardiac muscle atrophy,

and deep vein thrombosis

**Metabolic:** glucose intolerance and negative nitrogen balance

## **Musculoskeletal:** osteoporosis, muscle

atrophy and weakness, and contractures

**Renal:** calculi and nephritis

Skin: pressure ulcers



## Gastrointestinal: constipation and fecal

impaction

- The current prevalence of pressure ulcers is high¹
  - 1 in 10 patients in acute care experience a pressure ulcer, and almost 1 in
     20 patients develop a facility-acquired pressure ulcer
  - In the long-term acute care setting, the risk rises to nearly 1 in 4
- Because the Centers for Medicare & Medicaid Services no longer pays for care associated with stage 3 and 4 facility-acquired pressure ulcers, pressure ulcers can have a significant financial impact<sup>2</sup>
- Mobilization of patients is recommended to help prevent pressure ulcers and might include adherence to 2-hour repositioning schedules<sup>3</sup>

<sup>1.</sup> VanGilder C, et al. Presented at: Symposium on the Advances of Skin and Wound Care. 2010.

Hospital-acquired conditions. Centers for Medicare & Medicaid Services website. http://www.cms.gov/HospitalAcqCond/06\_Hospital-Acquired\_Conditions.asp. Accessed 1/3/12.

<sup>3.</sup> Jankowski IM, Nadzam DM. Jt Comm J Qual Patient Saf. 2011;37:253-264.

#### **HORIZONTAL TRANSFERS**



**SITTING TRANSFERS** 



### WALKING / AMBULATION



## PATIENT HANDLING METHODS THROUGH THE PROGRESSIVE MOBILITY® PROGRAM

REPOSITIONING



**STANDING ASSESSMENTS** 



- Turning Q2H & Early Progressive Mobility® Programs
- ② Are patients being turned as frequently as needed?
- ② What type of lift equipment is needed to safely turn the patient?
- ② What triggers turning? Drop down in chart?
- 12 Is using a turning team an effective strategy?
- 1 How frequently should patients be turned?
- What if the patient is on a special mattress or bed?
- ② What if there are pressure ulcers on all of the patients'
- turning surfaces?
- What if the patient is too unstable for turning?
- Physical Therapy support of progressive mobilization

## THE CHALLENGE: MANY PATIENTS EXPERIENCE A POTENTIALLY EXPENSIVE FALL DURING THEIR HOSPITAL STAY

3%-20% of patients fall at least once during their hospital stay<sup>1</sup>

result in excess charges of more than \$4000 per hospitalization<sup>1</sup>

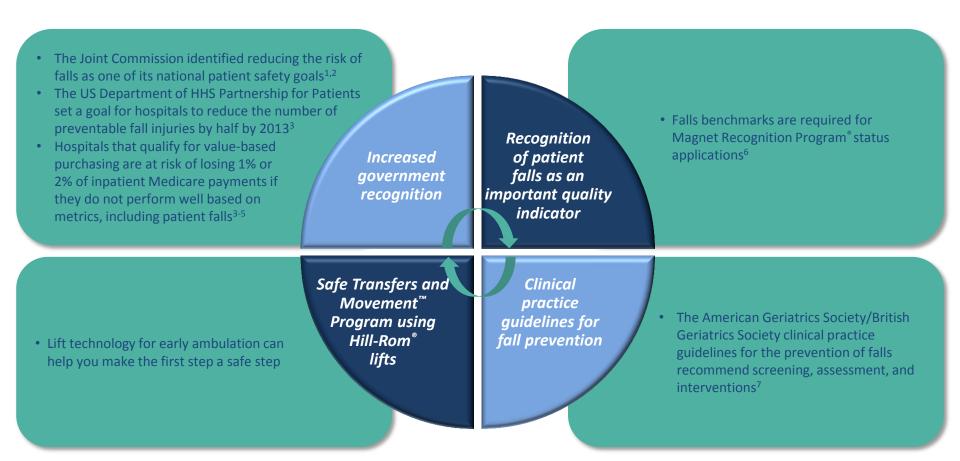
Injuries from falls are no longer reimbursed under CMS guidelines<sup>2</sup> Hospitals must absorb the costs associated with the treatment of fall injuries<sup>2</sup>

Most adult patients in healthcare settings are considered to be at high risk for falls<sup>3</sup>

#### CMS=Centers for Medicare & Medicaid Services.

- 1. Inouye SK, et al. N Engl J Med. 2009;360:2390-2393.
- Hospital-acquired conditions. Centers for Medicare & Medicaid Services website. http://www.cms.gov/HospitalAcqCond/06\_Hospital-Acquired\_Conditions.asp. Accessed 1/3/12.
- 3. Shever LL et al. West J Nurse Res. 2011;33:385-397.

## THE SOLUTION: RECOGNITION OF THE IMPORTANCE OF PREVENTING PATIENT FALLS, GUIDELINES, AND TECHNOLOGY



#### HHS=Health and Human Services.

1. National patient safety goals effective January 1, 2012: home care accreditation program. The Joint Commission website. http://www.jointcommission.org/assets/1/6/NPSG\_Chapter\_Jan2012\_OME.pdf. Accessed 1/12/12. 2. National patient safety goals effective January 1, 2012: long-term care accreditation program. The Joint Commission website. http://www.jointcommission.org/assets/1/6/NPSG\_Chapter\_Jan2012\_LTC.pdf. Accessed 1/12/12. 3. Preventing serious fall injuries and immobility. HealthCare.gov website. http://www.healthcare.gov/compare/partnership-for-patients/safety/injuries.html. Accessed 2/27/12. 4. Administration implements Affordable Care Act provision to improve care, lower costs [press release]. Washington, DC: US Department of Health and Human Services; April 29, 2011. http://www.hbs.gov/news/press/2011pres/04/20110429a.html. Accessed 1/3/12. 5. Greenberg B; Health Care Industry Committee. Value-based purchasing overview. Washington, DC: The Advisory Board Company; 2011. 6. Magnet Recognition Program\* FAQ: data and expected outcomes. American Nurses Credentialing Center website. http://www.nursecredentialing.org/Functional Category/FAQs/DEO-FAQ.html. Accessed 2/27/12. 7. Panel on Prevention of Falls in Older Persons, American Geriatrics Society and British Geriatrics

Society. J Am Geriatr Soc. 2011;59:148-157.

# Potential barriers to the implementation of safe patient handling programs include<sup>1,2</sup>

**Financial constraints** 

Reluctance to accept changes

Competing priorities among management

Potential barriers to the implementation and maintenance of safe patient handling programs must be overcome

<sup>1.</sup> Saracino S, et al. Pennsylvania Patient Safety Advisory. 2009;6:126-131.

AOHP OSHA Alliance Implementation Team. Beyond getting started: a resource guide for implementing a safe patient handling program in the acute care setting. Association of Occupational Health Professionals in Healthcare website. http://www.aohp.org/documents/about\_aohp/BGS\_Summer2011.pdf. Accessed 1/25/12.

### THE SOLUTION: A COMBINATION OF GUIDELINES, POLICIES, AND TECHNOLOGY

### **NIOSH**

- Lifting equation yields a recommended maximum weight limit of 35 lbs for use in patient handling tasks<sup>1</sup>
- Weight limit is even lower when tasks are performed under challenging circumstances<sup>1</sup>
- When a patient handling task might exceed the weight limit guidelines, assistive lifting equipment should be used<sup>1</sup>

## **VHA**

- Established policies for the implementation and maintenance of safe patient handling programs<sup>2</sup>
- Created algorithms that provide guidance for safe patient handling best practices<sup>3</sup>

## **PHAMA**

- The PHAMA paper, written by The Facility Guidelines Institute, provides<sup>4</sup>
  - Guidelines regarding selection of lifting and transfer devices
  - Recommendations for safe patient handling equipment needs

# SPH Policy and procedures aligned with your equipment resources

NIOSH=National Institute for Occupational Safety and Health; PHAMA=patient handling and movement assessments; VHA=Veterans Health Administration.

- 1. Waters TR. Am J Nurs. 2007;107:53-58.
- 2. US Department of Veterans Affairs, Veterans Health Administration. Safe patient handling program and facility design.
- VHA Directive 2010-032. http://www.visn8.va.gov/VISN8/PatientSafetyCenter/safePtHandling/SafePatientHandlingDirective.pdf. Accessed 3/12/12.
- 3. Algorithms for safe patient handling and movement: assessment forms and algorithms. VA Sunshine Healthcare Network website. http://www.visn8.va.gov/PatientSafetyCenter/safePtHandling/. Accessed 4/27/12.
- 4. Cohen MH, et al. Patient handling and movement assessments: a white paper. Dallas, TX: The Facility Guidelines Institute; 2010.

#### A BETTER OUTCOME

## Reducing the Financial Impact

- At one institution, implementation of a safe patient handling program has shown a reduction in workers' compensation costs by 40% and lead to an increase in employee satisfaction<sup>1</sup>
- Selecting proper equipment, providing education, and implementing safe patient handling program processes have been shown to reduce costs<sup>2</sup>
- Implementation of a back injury prevention program has been shown to decrease workers' compensation costs<sup>3</sup>
- Implementation of a safe patient handling and movement project has been shown to be **cost-effective**<sup>4</sup>
- Implementation of a ceiling lift program in an extended care facility has been shown to **generate economic benefits due to reduced** workers' compensation costs within 3 years of intervention<sup>5</sup>

- 1. Forte J. American Nurse Today. 2011;6(suppl).
- 2. Brophy MO, et al. AIHAJ. 2001;62:508-511.
- 3. Collins JW, et al. Inj Prev. 2004;10:206-211.
- 4. Siddharthan K, et al. Cost effectiveness of a multifaceted program for safe patient handling. In: Henricksen K, et al, eds. Advances in Patient Safety: From Research to Implementation. Vol 3. Rockville, MD: US Agency for Healthcare Research and Quality; 2005:347-358.
- 5. Chhokar R, et al. Appl Ergon. 2005;36:223-229.

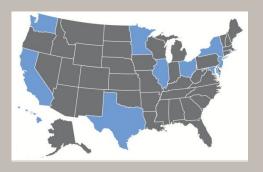
## THE US GOVERNMENT IS PLAYING A LARGER ROLE IN PREVENTING CAREGIVER INJURY AND PROMOTING SAFE PATIENT HANDLING

## **OSHA**

- Addresses safe patient handling with general-duty clause requiring every employer to provide a safe and hazard-free work environment<sup>1</sup>
  - Musculoskeletal injuries related to patient handling are reported and recorded in the OSHA 300 logs
- Developed a set of guidelines for nursing homes in 2003 that are designed to prevent MSDs<sup>1</sup>
- Launching national initiative for increased inspections of nursing home and resident care facilities<sup>2</sup>
  - Focus areas include back injuries resulting from resident handling or lifting

## **State Legislation**

- Many states created legislation mandating safe patient handling initiatives<sup>3</sup>
  - Safe patient handling laws have been enacted in 10 states
  - Additionally, Hawaii has passed a resolution supporting safe patient handling



## Caregiver injury due to patient handling is receiving increased government attention

#### OSHA=Occupational Safety and Health Administration.

- AOHP OSHA Alliance Implementation Team. Beyond getting started: a resource guide for implementing a safe patient handling program in the acute care setting. Association of Occupational Health Professionals in Healthcare website. http://www.aohp.org/documents/about\_aohp/BGS\_Summer2011.pdf. Accessed 1/25/12.
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## THE AMERICAN NURSES ASSOCIATION STANDARDS OF PRACTICE FOR SAFE PATIENT HANDLING

- The American Nurses Association is currently developing national interdisciplinary safe patient handling standards to help hospitals and other healthcare employers develop safe, effective, and enduring programs
- The standards were available for public comment in October 2012, with a release planned for Spring 2013.
- To establish a safe environment for nurses and patients, the American Nurses Association supports actions and policies resulting in the elimination of manual patient handling

- 1. Create a Culture of Safety
- 2. Implement and Sustain a SPHM Program
- 3. Incorporate Prevention through Design: Providing a Safe Environment of Care
- 4. Select, Install, and Maintain SPHM Technology
- 5. Establish a System for Education, Training and Competency
- 6. Incorporate Health Care Recipient Centered Assessment, Care Planning, and Use of Technology
- 7. Include SPHM in Reasonable Accommodation and Post Injury Return to Work
- 8. Establish a Comprehensive Evaluation Program

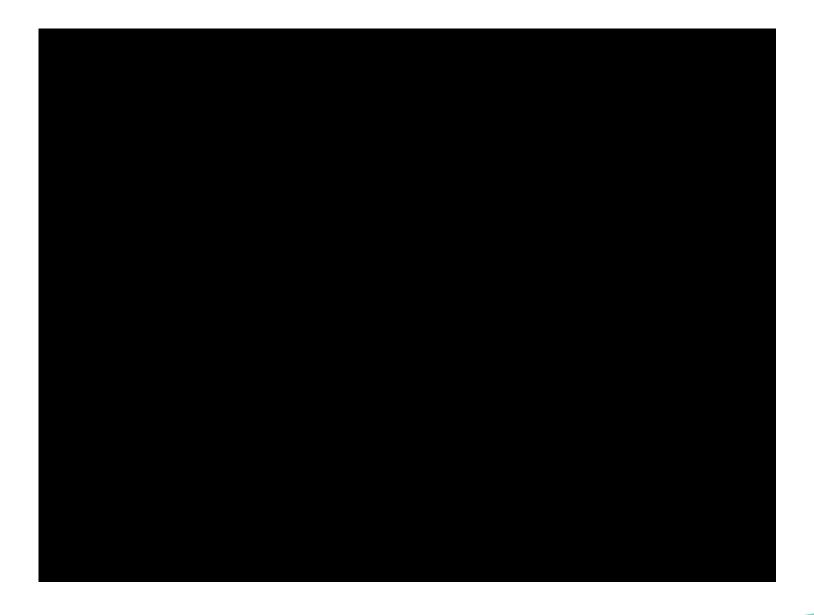
#### **CLINICAL SITUATIONS: LIFTING SOLUTIONS USING LIFT TECHNOLOGY**

## Repositioning • Side-to-side turning **IN THE BED** • Limb lifting • Linen changes Hygiene procedures **Totally** Posterior assessment **Dependent** Catheter insertion Horizontal transfers • Sitting out of the bed **UP FROM** • Bed-to-wheel chair THE BED • Bed-to-chair • Bed-to-commode **Dependent / Not** • In-chair repositioning **Ambulating** Standing assessment **OUT OF THE BED** Ambulation / Walking Standing Assessments **Ambulating**

- Sling application with low-friction sheets
- Seated lifting for repositioning sheet application/changes, bed linen
- Use of limb straps during sling application
- Safe ambulation
- Skin folds & hygiene
- Lifting pannus
- Comfort needs met



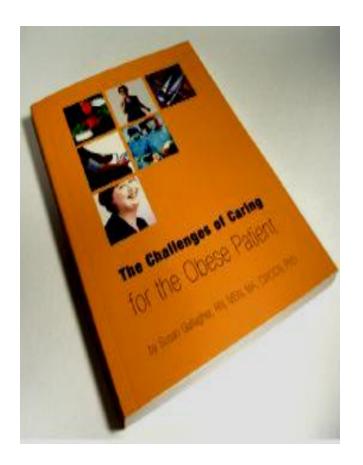
### FROM THE PATIENT'S PERSPECTIVE



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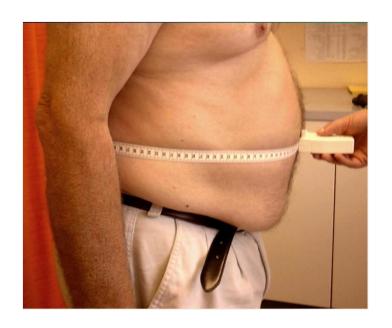
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# Challenges...



- Childhood obesity
- Pressure ulcers
- Lower leg ulcers
- Preplanning for care
- Care across the continuum
- Panniculectomy
- Bariatric weight loss surgery
- And more...

## The Triad of





# Hazards of immobility



# Immobility and obesity

- Endocrine
- Cardiac
- Vascular
- Respiratory
- Musculoskeletal
- Gastrointenstinal
- Integumentery
- Emotional



## Integumentary

- Largest organ of the body
- Greater pressure
- Less vascularity in adipose tissue
- Greater friction and shear
- Skin to weight ratio perspiration
- Untreated dermatitis
- Urinary incontinence
- Atypical pressure ulcers



# Atypical pressure ulcers

- Skin folds
- Tubes and catheters
- Hip ulcers
- <u>Buttocks ulcers, buttock</u>
   <u>cleft, lower back</u>



## **Economic hazards**

- Non-reimbursable events including readmission (CMS 2008)
- Liability risk
- Satisfaction
- Issues of retention and recruitment
- Threat to caregiver safety



# Implications to safe patient handling?

"Patients with a BMI greater than 35 comprised only ten percent of the patient population, however handling patients with a BMI greater than 35 was associated with 29.8% of injuries, 27.9% of lost time, and 37.2% of restricted time. In this study lifting, turning and repositioning was usually performed using biomechanics and not equipment. Therefore, with increasing body weight and weight maldistribution of both patients and their caregivers, challenges inherent in lifting, moving and repositioning the larger, heavier patient lends to hazards of immobility."

# Understanding the All-New Paradigm

# What is progressive, early mobility?

"Series of planned movements in a sequential manner beginning at a patients current mobility status with the goal of returning to baseline"

# How can this be done successfully?

- Mobility team/mobility coach
- Four-step action plan
  - Task force
  - Criteria-based protocol
  - Training
  - Outcomes



Rethink success...don't forget Deming!

## Pre-planning

- Challenges of immobility
  - Caregiver injury
  - Patient safety
- Comprehensive effort
  - Task force
  - Preplanning tools
  - Education
  - Outcomes



Jenna, a 61-year-old woman with a BMI greater than 90 (240 kg and 5'4") was admitted to the critical care area with skin tears, a pressure ulcer, severe COPD, morbid obesity, sleep apnea, renal failure and numerous other co morbidities.

She had been bed bound for years at home with attentive family care, which addressed her physical, emotional and social needs. Advanced directives indicated she and her family wanted "everything done."

- Shaver J. Promoting dignity and preventing caregiver injury among a morbidly obese patient with skin care challenges. National Association for Bariatric Nurses National Conference. Asheville, NC. 2005.
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# Within 15 minutes of admission <u>two</u> caregivers were injured....

- Lateral transfer device was used for transfers
- Full body lateral rotation support surface was used as an adjunct for turning/repositioning
- Sling-type lift was used to lift the patient from the bed

- Regardless of the time of day four people were always involved in turning or moving the patient
- Clinical experts
  - Pulmonologist, pain CNS, WOCN, social worker,
     ergonomist, dietician, physical therapist and more...

- Challenges
  - Dignity
  - Accommodation, supportive friends and family members,
  - Prevention of immobility-related complications including attention to skin integrity and airway
- Prevent caregiver injury among aging staff members.

Two days before the patient's death over 30 people were at the bedside providing emotional support. Despite progressive deterioration of the patient's physical condition, the pressure ulcer did not deteriorate, the skin tears healed completely this became...

- ...a satisfaction study
  - No further injuries
  - Satisfaction narratives
  - <u>Reverse</u> performance improvement project

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- You entered the healthcare field to care for patients, and to ease pain and suffering.
- You entered the healthcare field to use your brain not your back.
- You are here today to learn how to safely lift and manage patients of all sizes so you can provide excellent care without hurting your back, shoulder, or co-worker.
- I hope you make the next move a Safe Move for you and your patient.



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