Safe Patient Handling and Mobility

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Objective: Identify principals to improve patient outcomes and reduce workers’ musculoskeletal disorders in order to create a safe patient care work environment.
DISCLOSURE TO PARTICIPANTS

Successful Completion of this Continuing Nursing Education Activity

- In order to receive full contact-hour credit for this CNE activity, you must:
- Sign the roster with your name/contact information & attend the entire activity
- Complete the Evaluation Form(s) as directed at the conclusion of the activity

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Welcome on behalf of MNA

AGENDA
7:30 – 8:00 Registration and Coffee

8:00 – 9:00 “SPHM”

9:00 – 9:15 Break

9:15 – 10:30 Workplace & Lateral violence

10:30 – 11:30 Pain Management & Opioids

1. www.AmericanNurseToday.com September 2014 Special Report: Current Topics in Safe Patient Handling and Mobility – National experts share their perspectives & best practices to align people, processes, & technology to set the course

2. Patient Handling & Movement Assessments - Prepared by the 2010 Health Guidelines Revision Committee Specialty Subcommittee on Patient Movement


5. Safe Patient Handling and Mobility 2012 nursingworld.org/Safe-Patient-Handling-ANA
Credo

“Patients should not be harmed by the care that is intended to help them, nor should harm come to those who work in health care”

Crossing the Quality Chasm, 2001

Brought to you by
Nursing - We’re in Trouble!

- The average age of the American registered nurse is 44.6
- The patients we serve are heavier than ever
- Experts predict increases in patient acuity, age, and comorbidity
- Staffing issues continue to cause concern
- Economic imperatives require us to move patients through the healthcare delivery system to shorten stays and enhance financial reimbursement
“I was going to ask how working with a severely limited staff was, but I think I can already guess.”

“I know it’s been a rough shift, but look at the bright side... only 7 hours to go.”
Changing the Culture in Nursing

• While the intentions of manual patient mobilization may be well meaning, the effects are far from optimal for all involved, and is an impediment to providing safe and therapeutic environments of care.

• Manual patient handling-lifting, transferring, positioning, and sliding patients without assistive technology has been the norm in health care facilities for decades.

• Nonetheless, it is an unsafe practice for both caregivers and patients.
Changing the Culture in Nursing

• There’s no such thing as “safe lifting” when we use our bodies as the lifting mechanism.

• Old-school teachings about safe body mechanics have been proven invalid, and many of us must un-learn them!
Work-related musculoskeletal disorder definition

• A work-related musculoskeletal disorder is an injury of the muscles, tendons, ligaments, nerves, joints, cartilage, bones, or blood vessels in the extremities or back that is caused or aggravated by work tasks such as lifting, pushing, and pulling [Orr 1997].

• Symptoms of musculoskeletal disorders include pain, stiffness, swelling, numbness, and tingling.

• Researchers have found more than 80% of nurses are injured at some point as there is no safe way to manually lift or move a patient with assistance/equipment.
CAUTION

Patient!
Do not drop, fold, bend or mutilate!

For more info go to: www.aspho.org
Safe Patient Handling & Mobility

- Rates of musculoskeletal injuries from overexertion in healthcare occupations are among the highest of all U.S. industries.
- Data from the Bureau of Labor Statistics (BLS) show that in 2011, the rate of overexertion injuries averaged across all industries was 38 per 10,000 full time workers.
- By comparison, the overexertion injury rate for hospital workers was twice the average (76 per 10,000), the rate for nursing home workers was over three times the average (132 per 10,000), and the rate for ambulance workers was over six times the average (238 per 10,000).
- The single greatest risk factor for overexertion injuries in healthcare workers is the manual lifting, moving and repositioning of patients, residents or clients, i.e., manual patient handling.
Why don’t you just relax while I viciously drag you up!

GET ON THE COT NOW AND NO ONE GETS HURT!
Worker Injuries

Ohio University
Safe Patient Handling & Mobility

• Most of the patient handling which occurs in health care settings is performed by nurses and support staff such as nursing aides and orderlies.

• The most recent data available from the BLS (2010) show that within the health care industry, workers in these occupations suffered the most lost-time cases of general musculoskeletal pain (11,960) and back pain (4,700).

• Nursing work demands have also been strained by an ongoing shortage of nurses which is projected to reach 260,000 unfilled nursing positions by the year 2025.
Despite High Rates Of Nursing Injuries, Government Regulators Take Little Action

- Some Legislatures have taken on the issue
- Only 11 states have enacted SPHM laws and these laws vary significantly
- NPR has been reporting in its Injured Nurses series, nursing employees suffer more back and arm injuries than just about any other occupations
- "There's no question, a national law requiring protection in hospitals would protect workers and would result in the reduction in musculoskeletal injuries in hospitals."

David Michaels, Assistant Secretary of Labor for Occupational Safety & Health
Only 11 states have enacted SPHM laws and these laws vary significantly

- **Eleven** states have enacted "safe patient handling" laws or promulgated rules / regulations: **California, Illinois, Maryland, Minnesota, Missouri, New Jersey, New York, Ohio, Rhode Island, Texas, and Washington**, with a resolution from **Hawaii**.

- Of those, **ten** states require **a comprehensive program in health care facilities** (California, Illinois, Maryland, Minnesota, Missouri, New Jersey, New York, Rhode Island, Texas and Washington), in which there is established policy, guidelines for securing appropriate equipment and training, collection of data, and evaluation
Government regulators haven't done much to protect nursing staff

- Studies show that hospitals can reduce the number of injuries dramatically if they buy special equipment to move patients and conduct intensive training to teach the staff how to use it.
- For example, federal researchers found that across the vast VA hospital system, nursing injuries from moving patients have dropped by an average of 40 percent after using these strategies. (The cost-benefit analysis showed a net savings of $200,000 per year, and the initial capital investment was recovered in approximately four years)
- And at Baptist Health, a chain of five hospitals around Jacksonville, Fla., a spokesman says they slashed the number of lifting injuries by 80 percent after installing the equipment and training the staff.
- **But industry officials acknowledge that most hospitals haven't done the same thing.**
Myths & Realities

• Proper body mechanics (including the use of gait belts) prevent patient handling injuries.

• SPHM technology is not affordable.

• Decades of research shows that “proper” body mechanics are not an effective way to reduce injuries. There is no such thing as safe manual lifting.

• The benefits of SPHM include a rapid return-on-investment; savings associated with reduced healthcare worker and healthcare recipient injuries far outweigh the costs.
Myths & Realities

• Smaller, lighter healthcare recipients do not warrant use of SPHM technology.

• It is recommended to develop policies and practices that lead to the elimination of all manual lifting. NIOSH recommends lifting no more than 35 pounds, under the best ergonomic conditions.

• Healthcare workers who are physically fit are less likely to be injured.

• Research does not support this. Good health and strength may actually put healthcare workers at increased risk because their peers are much more likely to seek their assistance when manually lifting healthcare recipients.
Myths & Realities

• It’s much faster to manually move patients than to take the time to get SPHM technology.

• Manual lifting is safer & more comfortable for patients and healthcare recipients.

• If SPHM technology is located conveniently, accessing it will not take a long time. It is often more time consuming to round up a team of colleagues to manually lift a healthcare recipient than it is to get the SPHM technology.

• It is the role of the healthcare workers to teach and explain that the use of the technology is safer and more convenient for both healthcare recipients and healthcare workers.
Myths & Realities

• The majority of the time manually lifting or transferring patients does not result in injury.

• Using SPHM technology feels impersonal.

• Manual lifting results in micro-injuries to the spine. Although the healthcare worker may not feel the effects immediately, cumulative micro-injuries can result in a debilitating injury.

• Safety and quality of care are the goals. Healthcare workers can effectively use SPHM technology while incorporating the professional values of respect, dignity, and caring.
Repositioning patient leads to debilitating injury

• **Jean Lucas’** life changed in an instant, because she lacked safe patient handling equipment on her care unit to reposition a patient, so she used her own strength to relieve the patient’s pain – a common practice among registered nurses.

• Instead, Lucas ended up with excruciating pain in her lower back after lifting a 600-pound patient’s leg onto her bed in the maternal intermediate care unit, and had to visit the emergency room.
Repositioning patient leads to debilitating injury

- That started a tribulation of health care problems that knocked Lucas out of work for four months, and ultimately hastened her retirement.

- Diagnostics revealed herniated and bulging discs in her back and neck.

- Complications from a third epidural procedure, intended to relieve pain, resulted in a spinal fluid leak and another trip to the emergency room with a severe headache, nausea and vomiting.
Repositioning patient leads to debilitating injury

• Speaking at a safe patient handling and mobility briefing on Capitol Hill May 12, the New Jersey nurse and member of ANA and the American Federation of Teachers, said she couldn’t be sure if her injuries resulted from the one-time incident or from accumulated strains from 24 years of manually lifting, pulling and repositioning patients.

• She is sure that injuries like hers could be prevented through implementation of comprehensive safe patient handling and mobility programs in health care facilities.
National Occupational Safety Standards

• “The desperate need to pass legislation for safe patient handling and mobility is clear,” Lucas said, in support of Rep. John Conyers’ (D-MI) proposed bill that would establish a national occupational safety standard to eliminate the manual lifting of patients by direct-care RNs and health care workers through the use of safe patient handling and mobility technology, such as overhead lifts.

• “Injuries are a national problem, and we need a national solution,” they said.
OSHA thought they had the solution, and it would have affected far more than hospitals:

• On Nov. 14, 2000 OSHA issued a sweeping new rule that required major companies across the nation to prevent "ergonomic" injuries — the injuries workers suffer to their backs, necks, arms and legs from doing tasks that repeatedly stress their bodies.

• OSHA's rule warned specifically about the large numbers of nursing employees who get hurt by lifting patients in hospitals, but it applied equally to businesses from auto factories to timber mills.

• Under the rule, companies would have to redesign their workplaces if multiple employees developed ergonomic injuries while doing the same job.
“Ergonomics”

- Evidence-based research has shown that safe patient handling interventions can significantly reduce overexertion injuries by replacing manual patient handling with safer methods guided by the principles of “Ergonomics”
- *Ergonomics refers to the design of work tasks to best suit the capabilities of workers*
- In the case of patient handling, it involves the use of mechanical equipment and safety procedures to lift and move patients so that health care workers can avoid using manual exertions and thereby reduce their risk of injury
- At the same time, patient handling ergonomics seeks to maximize the safety and comfort of patients during handling
Industries where patient handling tasks are performed include:

- Long-Term Care - includes facilities that provide skilled or non-skilled nursing care
- Acute Care - includes hospitals, out-patient surgical centers, and clinics
- Home Healthcare workers
- Others - such as physical therapists, radiologists, sonographers, etc.
OSHARULE

• The nation's business leaders mounted a national campaign against the rule, predicting that it wouldn't prevent workplace injuries but would cost so much money to implement that some companies would shut down.

• Only weeks after OSHA issued the rule, Congress pledged to block or overturn what it considered to be burdensome federal regulations.

• Congress killed OSHA's rule.
Standards that help Safeguard both Nurses and Patients

- In 2012, an inter-professional group of subject matter experts convened to develop standards.
- *Safe Patient Handling and Mobility: Inter-professional National Standards Across the Care Continuum* was published in 2013.
- Participants included representatives of patients; nursing; surgery; therapy; biomedical engineering; risk management; architecture; law; acute, long-term, home health, and hospice care; the military; Department of Defense; certain government agencies; vendors; and professional associations.
A closer look at the standards:
Amy Garcia, MSN, RN, CAE

1. Standard calls for the employer to establish a commitment to a culture of safety
2. Outlines SPHM program components, including an assessment, written program, funding, and matching the program to the specific setting
3. This standard is based on the concept of prevention through design, which considers the physical lay-out, work-process flow, and use of technology to reduce exposure to injury or illness
4. Provides guidance in selecting, installing, and maintaining SPHM technology
A closer look at the standards:

5. Outlines employee (and volunteer) training and education needed to participate in the SPHM program.

6. Focuses on the patient’s needs by establishing assessment guidelines and developing an individual plan of care.

7. Promotes an employee’s early return to work after an injury and use of differently abled workers through a comprehensive SPHM program.

8. The final standard calls for a comprehensive evaluation system for each SPHM program component.
2010 Health Guidelines Committee on Patient Movement developed goals:

1. Provide background information & rational
2. Provide resources to help prepare
3. Establish a business case for implementation
4. Assist healthcare facilities with implementing recommendations
5. Challenge equipment designers, manufacturers, facility planners, architects, and project executives to meet the necessity of safe handling and mobility

(from the Facilities Guidelines Institute)
Caregiver Tasks that cause concern

Transfers (flat surface & seated positions)
Caregiver Tasks that cause concern

Positioning / Repositioning: (to accomplish tasks)

- Examining a patient
- Performing a procedure (catheterizing, re-bandaging)
- Performing hygiene tasks
- Grooming & feeding
- Emergency care
- Prevent pressure ulcers
- Reposition for comfort & safety
- Address a clinical condition (breathing, nausea, hypotension, prevent aspiration etc.)
This is a killer for your back

but in here we're protected by a Supernatural power
Caregiver Tasks that cause concern

Mobilization and Ambulation

• Moving the limbs of dependent, non-weight bearing patients to preserve joint flexibility. This involves taking limbs through their full range of motion

• Ambulating patients as early and as often as possible to maintain mobility and bone density.

• Recent evidence suggests the need for early or immediate and frequent ambulation applies even to some of the highest acuity patients, such as ventilator-bound patients in the ICU
Caregiver Tasks that cause concern

Lifting Off the Floor

• Manually lifting patients who have fallen is another task that is high-risk for both caregivers and patients.
• A concern particular to this activity is ensuring that the patient is stable and has not been injured; thus examination and caregiving must be provided in an awkward position from the floor.
• Lifting a patient, who cannot help, from the floor is undoubtedly one of the most difficult patient handling tasks caregivers perform!
Sure there are better ways, Mrs Dee...

... but we simply can’t be bothered
Caregiver Tasks that cause concern

Transportation

- Transporting patients long distances and/or up and down inclines can be very difficult for caregivers and dangerous for patients.
- The fact that patients may need to be transferred onto these transport devices from less mobile or less maneuverable beds/chairs creates risk for both patients and caregivers in these situations.
- Additional challenges and risks arise from having to push, pull, shove, and maneuver the devices to reach a destination, while at the same time overcoming difficulties presented by soft floor coverings, ramps, thresholds, inadequate clearances.
Caregiver Tasks that cause concern

Wound Care

• In performing wound care, caregivers must lift patients’ heavy limbs and hold them in place throughout what can be lengthy procedures.

• Additional difficulties result when a wound is located on a part of the body that is difficult to access.
Caregiver Tasks that cause concern

Toileting

• Assisting a patient in toileting is potentially one of the most difficult caregiver tasks.
• And patient falls, often serious, occur most frequently between bed and toilet.
• Most institutions and caregivers subscribe to the value of maintaining patient dignity by helping patients as necessary to utilize a built-in toilet within a private enclosure.
• However, patient size, weight, dependency level, intubation, and hour of need often shortcut these aspirations with the following, less-desirable alternatives.
Caregiver Tasks that cause concern

Showering/Bathing

- Safely getting a dependent patient into and out of a shower represents significant difficulties and dangers for caregivers and for patients.
- Showering/bathing a dependent patient presents a unique set of difficulties:
  - The patient is in a highly vulnerable emotional & physical state.
  - All areas of the patient’s body must be reached, including the perineal area.
  - To accomplish this, patients and limbs must be lifted and turned, and, depending on the position of the patient, caregivers must reach or stoop as necessary, sometimes for extended periods.
  - Working conditions can be wet and slippery, and floors are sloped for drainage.
  - *Patients are at greatly increased risk of falls*
Caregiver Tasks that cause concern

Surgery
• Transferring patients onto and off of a surgical table presents all the usual difficulties inherent in performing lateral transfers, along with others stemming from location in the surgical suite rather than the patient room.

Vehicle Extraction
• Patients arrive at health care facilities in varying states of consciousness, physical and emotional fragility, and pain; they are also of different sizes and weights.
• Some are able to leave their car independently, but many cannot exit and lift themselves to a standing position.
• Assisting these patients from a vehicle, often from the back seat, frequently requires contortions on the part of caregivers.
• The task is further complicated by the urgency of emergent situations.
Patients Presenting Special Challenges

• Many long-term nursing facility administrators report that up to 80% of their general patient populations may manifest at least some degree of dementia.

• In 2011, the Centers for Disease Control and Prevention reported that 69% of adults were over-weight, including 35% who were obese.

• Bariatric patients may be at even greater risk for immobility and deconditioning during hospitalization because nurses may fear they’ll injure themselves while providing patient care.

• Barriers to moving independently -not the patient’s weight -should be the main criteria for determining the need for lift equipment.
So basically nearly all bedside nursing care causes concern!
Complications of Immobility

- Respiratory: pneumonia
- **Cardiovascular**: deep vein thrombosis, hypotension
- **Gastrointestinal**: constipation
- **Genitourinary**: urinary infection, incontinence
- **Endocrine**: hyperglycemia, insulin resistance
- **Metabolic**: altered pharmacokinetics
- **Musculoskeletal**: deconditioning, bone demineralization, osteoporosis
- **Skin**: pressure ulcers (bedsores)
- **Psychosocial**: depression, decreased functional capacity, increased dependence
Standard categories of dependency levels include

- **Dependent**—the patient relies on the nurse or caregiver for all lifting and moving activities
- **Minimally to moderately dependent**—the patient relies on the nurse or caregiver for more than 50% of lifting and moving activities
- **Independent** the patient can perform lifting and moving activities without assistance from the nurse or other caregiver.
Wow Cristal!
Was that cracking sound your Spine
or Mr Bigley's shoulders?
Biomechanics of Patient Handling Injuries

• For more than 35 years proper body mechanics and lifting techniques were the control measure for decreasing injuries related to patient handling/moving...yet during this time injuries continued to increase!
Biomechanics of Injuries

• Carrying out an activity that exceeds a person’s biomechanical capabilities causes damage to the musculoskeletal system. Manually lifting patients who weigh more than 35 lbs. (even under optimal circumstances) is such an activity.

• In acute injuries, damage occurs when one event results in an injury.

• However, most patient handing injuries come from cumulative traumas. Which results from the accumulation of micro-injuries over time and often manifests itself as an acute injury.

• These cumulative traumas are not only the more common but the more insidious of musculoskeletal injuries.

• Such micro-injuries, in the form of micro-tears in the muscles or micro-fractures on the end plates of spinal vertebrae, often progress silently over time, until severe damage occurs.

• While the focus here is on damage to the muscles and spine, joints and bones can also be compromised. Most patient handling injuries are located in the lower back.
WORKPLACE INJURIES

7 x Greater

Average of all industries
Standards that help safeguard both nurses and patients

- The National Institute of Occupational Safety and Health calculates maximum loads for manual lifting, pushing, pulling, and carrying using a range of variables.
- Typically, a maximum load for a box with handles is **51 lb** (23 kg)—lower when the lifter has to reach, lift near the floor, or assume a twisted or awkward position.
High Risk Tasks in VA Care Guidelines

- Transfer of patients to and from bed to chair, chair to toilet, chair to chair, or car to chair
- Lateral transfer of patients to and from bed to stretcher or stretcher
- Transfer of patients to and from chair to stretcher, chair to chair, or chair to exam table
- Repositioning of patients in bed, both side to side and up in bed
- Repositioning patients in wheelchair or dependency chair
- Transfer of patients up from the floor
- Tasks requiring sustained holding of limb(s) or access to body parts of bariatric patients
- Transporting bariatric patients (stretcher, wheelchair, walker)
- Bariatric toileting tasks

Who bears the cost of worker injuries?

- 21% Workers' Compensation
- 11% Federal Government
- 5% State and Local Government
- 13% Private Health Insurance
- 50% Out of Pocket

Indirect Costs:
- Legal Costs
- Replacement Worker Costs
- Lost Productivity
- Overtime Costs

Direct Costs:
- Surcharges
- Healthcare Payments
- Earnings Benefits
- Higher Premiums
Who Pays when Workers are Injured?

- State legislatures and courts have made it increasingly difficult for injured workers to receive the payments for lost wages and medical expenses that they deserve.
- As a result of this cost-shifting, workers’ compensation payments cover only a small fraction (about 21%) of lost wages and medical costs of work injuries and illnesses.
- Workers, their families and their private health insurance pay for nearly 63 percent of these costs, with taxpayers shouldering the remaining 16 percent.
Impact on Quality Patient Care

• The goal of healthcare is to initiate the healing process
• Reports by critically ill patients noted turning & repositioning activities were more painful than suctioning, tube advancement, or dressing changes
• The quality of patient care improves when safe patient handling programs are implemented.
• Patients have fewer falls, skin tears, and pressure ulcers, which can cost the hospital money and lower their Hospital Consumer Assessment of Healthcare Providers & Systems (HCAHPS) scores.
• Mechanical and other safe lift equipment increases patient mobility, which can reduce patients’ length of stay. Studies have also shown that patients feel significantly more comfortable and secure when a mechanical transfer device is used.
• All of this results in an enhanced sense of dignity, leading to increased patient satisfaction 😊
Common Patient Handing & Movement Equipment

Powered Patient Lifting Equipment or Hoists
- Full-body sling lifts
- Overhead lifts (ceiling-mounted, wall-mounted, or portable lifts)
- *Floor-based sling lifts
- *Gantry lifts
- *Sit-to-stand (stand assist or standing) lifts

*L Must be stored in accessible, appropriate locations*

Lateral Transfer (Slide) Devices
- Air-assisted lateral transfer devices
- *Mechanical lateral transfer devices
- Friction-reducing devices (sliding boards, roller boards, slippery sheets, etc.)

Other Devices
- *Transfer chairs
- Non-powered standing aids
- Transfer boards/devices
- Beds/mattresses
- *Stretchers/gurneys
- *Transport assistive devices
Strategies

1. Refer to a published study
2. Complete a simple template - the most commonly cited ones for an SPHM program are reductions in workers’ compensation costs and in lost or restricted staff days due to patient handling and mobility injuries
3. Decision analysis to show worst- and best-case scenarios for costs and benefits

• Example: After investing $800,000 in a safe lifting program, Stanford University Medical Center saw a five-year net savings of $2.2 million. Roughly half of the savings came from workers’ compensation!
Cost of Equipment

- Genesis 400 Hydraulic - $565
- No Lift Turner - $224
- Chair lift - $6795
Cost of Equipment

- Mobile patient lift - $2855
- Fixed ceiling lift - $2295
- Portable hydraulic lift - $1350
Meet Robear, the 'nurse' with the strength of a robot and face of a BEAR: Gentle droid giant lifts patients from beds and chairs - Nagoya, Japan
Questions?
Conclusion

• To achieve the fullest possible benefit hospitals need to consider more than just what type of equipment to buy!
• Successful safe patient handling programs also involve:
  1. a comprehensive assessment of the nature of patient and worker needs
  2. full support from administration and key managers
  3. employee involvement
  4. policies that encourage the safest techniques for handling patients
  5. the right amount of equipment that is right for the job
  6. adequate, convenient storage and maintenance of equipment
  7. education and training
  8. ongoing evaluation and improvement
Suggested Resources

1. Facilities Guidelines Institute - PHAMA White Paper
2. International Organization for Standardization - Ergonomics: Manual Handling of People in the Healthcare Sector
3. Joint Commission - Improving Patient and Worker Safety: Opportunities for Synergy, Collaboration and Innovation
4. National Institute of Occupational Safety and Health - Safe Patient Handling Nursing School Curriculum Module
5. Occupational Safety and Health Administration – Guidelines for Nursing Homes: Ergonomics for the Prevention of MSDs
6. U. S. Department of Veterans Affairs - Safe Patient Handling and Movement Resource Page