Massachusetts Nurses Association

Safe Patient Handling and Mobility Toolkit

2021 Edition

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Findings and Recommendations

Original Cartoons by Dylan Piknick

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Introduction

The Massachusetts Nurses Association (MNA) believes we need to provide education to promote the importance of safe patient handling equipment to move patients and facilitate early mobility. The healthcare industry has not made this a priority. MNA shall pursue and support legislation as we continue our mission to educate nurses and direct caregivers with the goal of preventing further musculoskeletal injuries among healthcare personnel.

MNA understands a culture shift needs to occur in our work practice and our work facilities to provide safer work environments for ourselves and our patients. This toolkit provides education about the seriousness of this problem and is a resource to guide all direct caregivers regarding patient assessment for handling activities, safer work practices and patient handling equipment.

The focus on SPHM has shifted over the years to include the benefits of SPHM for the patient as well as the direct caregiver. As we create a safer work environment, the toolkit will also present information supporting the importance of early patient mobility while identifying the physical and psychological benefits that patient handling equipment affords patients.

Description of the Problem

According to the Bureau of Labor Statistics, the likelihood of injury or illness resulting in days away from work is higher in hospitals than in construction and manufacturing—two industries that are traditionally thought to be relatively hazardous. The National Institute for Occupational Safety and Health (NIOSH, 2013) reported, the overexertion* injury rate for hospital workers was twice the average, the rate for nursing home workers was over three times the average, and the rate for ambulance workers was over five times the average. The single greatest risk factor for overexertion injuries in direct caregivers is the manual lifting, moving, and repositioning of patients, residents, or clients, i.e., manual patient handling.

All direct caregivers are at risk for injuries, and this risk increases when appropriate body positions cannot be assumed due to space limitations or equipment considerations. Nurses and direct caregivers' risk of musculoskeletal injury and musculoskeletal disorders (MSDs) are directly associated with the repetitive manual handling of patients, equipment, and awkward postures associated with patient care activities (Davis & Kotowski, 2015; Elnitsky, Lind, Rugs, et al., 2014).

- Nursing is an occupation most at risk from low back pain (LBP), with rates exceeding heavy industry workforces. Furthermore, the lifetime prevalence of LBP in nurses is higher than in the general population, with reports as high as 90% (Tariq, et al, 2021).
- In 2019, the U.S. Bureau of Labor Statistics (BLS) reported 20,150 registered nurses (RNs) experienced a work-related back injury resulting in one or more missed days from work, reporting an injury rate of 102.1 cases per 10,000 full time workers.

*Overexertion - "motion that imposes stress or strain on some part of the body due to the repetitive nature of the task" (National Safety Council).

- "According to the Occupational Safety and Health Administration (2014a) in 2010, worker-related musculoskeletal disorders accounted for more than 600,000 injuries and illnesses among health care workers, costing employers nearly $20 billion in direct costs (e.g., workers' compensation, health care expenses, legal services) and approximately five times that sum in indirect costs (e.g., pain and suffering, training for replacement employees, accident investigation, and lost productivity)" (Noble & Sweeney, 2018, p.41).

Contributing factors

- "The complex nature of patient care, extended shift schedules, and reduced staffing has increased job demands of nurses. Long working hours, a large number of cared patients, in addition to the frequent manual lifting and improper postures, are all critical factors associated with LBP in nurses, implying that LBP is an occupational disease of complex origins" (Shieh, et al, p.526). **Due to inadequate staffing, some nurses and direct caregivers attempt patient handling tasks alone and increase their risk of injuring their patients and themselves.**

- The 2020 National Nursing Workforce Survey reported, "the median age of Registered Nurses was 52 years, up from 51 years in 2017. Nurses aged 65 years or older account for 19.0% of the RN workforce, representing the largest age category. The aging of the nurse workforce is expected to continue: In 2020, more than one-fifth of all nurse respondents replied positively when asked if they plan to retire in the next five years" (Smiley, R.A., Ruttinger, C., Oliveira, et al., 2020, S5).

- Physical and psychological demands related to the nurse's workload contribute to a staff turnover rate greater than any other profession, which fluctuates between 17% and 25% annually (Alghamdi, 2016).

- Population obesity rates have been rising, which correlates to a demonstrated likelihood of an increased need for medical intervention, versus patients who are within a healthy weight range, this factor puts nurses and other direct caregivers at an increased risk of sustaining MSD injuries. Additionally, trends of patients seeking bariatric surgery also contribute to a higher census of obese patients in our hospitals (Mclean, Cross, & Reed, 2021).

SPHM In the Home Environment

As the costs and delivery of healthcare have evolved over the years, home healthcare has become one of the fastest growing sectors in the healthcare industry. In 2020, Threlkeld reported that home healthcare spending has increased by 30% in the past five years. Healthcare provided in the home affords patients many benefits, one being that patients have use of preferred furniture and equipment.

Unfortunately, the home environment may be cluttered which can be compounded by limited space to care for the patient. Furniture is typically stationary and adaptive devices vary, each of these factors contribute to the unique challenges for performing SPHM activities in the home setting. These facts, compounded by working alone and many other considerations, increases the injury risk for both the patient and the direct caregiver. It is important to note that direct caregivers in the home have an increased incidence of injury compared to other healthcare and human services providers (Gershon, R.M., Pogorzelska, M., Qureshi, K.A., et al., 2008).

Historical Perspective: Body Mechanics

"Bodies are not made to lift other bodies" (Lampert, 2020, p.2). Loads for nurses and direct caregivers are often excessive and many postures are awkward, such as reaching across the bed. Even with good body mechanics, the loads nurses and direct caregivers lift exceeds the safe lifting capacity of a worker. Asking a coworker, "Can you help me boost my patient", has become a popular method in an attempt to avoid back injuries, but even this is not sufficient because it does not distribute the load equally. Some people are taller or shorter and/or stronger or weaker. To practice safely, direct caregivers need accessible, functional equipment to lift patients.

The incorrect assumption that proper body mechanics training alone is effective for preventing work related injuries continues. Manual handling has been a job expectation for direct caregivers since Florence Nightingale's time, despite advances in other industries (e.g., manufacturing and shipping) that rely on technology, not physical strength to do the heavy lifting. However, some healthcare facilities have been slow to adopt new patient-handling technologies and still rely on old-fashioned, unsafe manual handling, e.g.: body mechanics (Nelson, 2009).

Unfortunately, nursing education programs continue to utilize textbooks that promote proper body mechanics as a way to prevent injuries and do not educate nursing students about the benefits of using mechanical lifting equipment. For example, "according to *Fundamentals of Nursing Skills and Concepts*,10th Edition, published in 2013, 'the use of proper body mechanics (the efficient use of the musculoskeletal system) increases muscle effectiveness, reduces fatigue and helps to avoid repetitive strain injuries (disorders that result from cumulative trauma to musculoskeletal structures)' ….."It still advocates body mechanics as a way to protect a nurses back, but it gives a nod to the truth that the methods they are teaching are not as effective as health care workers have been led to believe" (Lampert, 2020, p. 2.).

"Many studies have shown, many experts have spoken out and many associations have proclaimed that body mechanics are bogus, unsafe and outdated" (Lampert, 2020, p. 2). During a National Public Radio (NPR) interview with William Marras, who has conducted landmark studies on this issue, stated: "The bottom line is, there's no safe way to lift a patient manually. The magnitude of these forces that are on your spine are so large that the best body mechanics in the world are not going to keep you from getting a back problem. There's no safe way to do it with body mechanics (Zwerdling, 2015a, p. 8). Hospital staff can lift and move patients safely only if they stop doing it manually with their own human strength--and use machines and other equipment instead" (Zwerdling, 2015a, p. 3).

Lampert reported, "Since body mechanics doesn't protect the direct caregiver from injury, the only possible way to safely move patients is with mechanical equipment." Dr. Gail Powell-Cope has been researching back problems in nursing for many years. She stated in a telephone interview, "Nurses don't realize that the forces on the spine are creating damage that might not show up for years. If you understand the physiology of a disc, you might think differently. It is excessive force over a period. Even if you lift properly, you are still damaging the disc" (Lampert, 2020, p. 3).

"It is clear that change is needed, because if employees aren't safe, it's not a far stretch to say patients aren't either." With patient care being of the utmost importance, isn't it time to take another look at, "how **safe** your organization's patient handling is?" (Deitrich, 2017, p. 2)

In the 1990's lift teams, which typically used body mechanics, were popular as a solution to decrease back injuries and promote mobility in patients. A Lift Team removes direct caregivers from the every-

day task of moving patients in a facility. More recently, hospitals' Lift Teams have been out of favor except for Veteran Administration facilities where they have successfully been in place for years and have evolved from manual lifting to only utilizing SPHM equipment.

Risk Factors in the Healthcare Environment

Common Job Tasks and Lifting Functions Potentially Resulting in Injury

Risk factors in the environment may include: (NIOSH, 2009)

- Slippery or wet surfaces
- Uneven floor surfaces
- Physical obstructions (cabinets, commodes, etc.)
- Space too small or difficult to access
- Entrance way width too small
- Poor arrangement of furnishings
- Uneven work surfaces: different heights between caregiver and bed, wheelchair and/or toilet
- Poor bathing area design
- Poor design of chairs

Job Tasks and lifting functions that will result in injury: (NIOSH, 2009)

- Performing repetitive motions
- Reaching and lifting loads that are too low, too high, or far from the body
- Repositioning (most common injuries occur here)
- Twisting while lifting
- Lifting heavy loads
- Moving a load over a far distance
- Frequent lifting
- Unassisted lifting
- Awkward posture of person doing lifting
- Repetitive pushing or pulling motions
- Lack of ability to grasp the patient securely (no handles)
- Handling and lifting unstable and asymmetrical weight loads (medical equipment, patients, IV and other tubing connections, injured limbs, wounds)
- Caring for patients that may:
  - Be totally dependent/immobile
  - Have unpredictable behavior or are combative
  - Have an inability or difficulty understanding instructions (language or cognitively based)
  - Have special medical needs such as burns, stroke, musculoskeletal injuries, and or other severe medical conditions

Culture Change Within Healthcare

"A healthy work environment is empowering for both the employees and the administrators. It creates a culture of safety, which is paramount for performance While it applies to every industry, it is especially true for the health care sector. Medical workers are exposed to a lot of challenges including health and safety challenges and therefore it is even more important to create a culture of safety within the organization. This, in turn, helps to create a patient-centered team that performs with a sense of professionalism, involvement, efficiency, transparency and accountability" (Oliver, 2016, p. 1).

The benefits of SPHM programs are clear, but effectively creating, implementing, and sustaining a SPHM program is time-consuming, arduous work. Stevens, et al has reminded us that, when equipment and training of the equipment has been provided it does not necessarily ensure that direct caregivers will actually use the equipment. To affect a culture change within an organization, it is imperative to develop a multifaceted approach when implementing such a program for assuring success of executing and maintaining a SPHM program. Remember, continuing education and periodic evaluation of the benefits that a SPHM program has achieved is crucial with sustaining the program (Nelson & Baptiste, 2006).

SPHM program specifics vary for each environment within a facility. Overall solutions for influencing risks can be grouped into three categories: engineering (SPHM equipment, devices), administrative (patient care ergonomic assessment protocols, no lift policies) and behavioral (education on appropriate use of lifting equipment/devices) interventions (Stevens, et al, 2013).

A few additional behavioral interventions to consider with actualizing use of technology in a successful SPHM program include:

- Guidance to help direct-care staff identify the best piece of available equipment for the movement task at hand
- Convenience and accessibility of the equipment and accessories
- Procedure to follow for patients on isolation status
- Education regarding the potential consequences of manual lifting to negate the perception of having enough staff to lift the patient safely manually

One approach to consider when starting a SPHM program is to begin with a pilot unit and working with that unit to provide an example of how a SPHM program can benefit both patients and staff. Identify a pilot unit, consider initial implementation on a unit experiencing high injury rates with leadership and staff who are committed to the project. Determine most effective modes of communication, identify unit-based peer leaders and/or ergonomic coaches and ensure the unit has up-to-date equipment. During the beginning phase, provide continuous education and training on equipment, risk assessment, patient assessment and equipment utilized, analyzing SPHM assessment tool(s) and an ergonomic unit assessment while monitoring the effectiveness of the program. Following execution evaluate effectiveness of the initiative by monitoring; outcome data on injuries - lost days from work or restricted days while calculating the costs of SPHM injuries monthly for a period of time, moving to predetermined blocks of time (e.g., six months, nine months then annually following implementation). Then calculate the percentage change for comparison of pre and post program implementation data (Stevens, Rees, Lamb, et al., 2013, p. 159).

If direct care workers want the necessary protections and equipment to increase their own safety - and the safety of their patients - more voices need to be raised in support of such measures (Carlson, 2015).

Financial Considerations: Safe Patient Handling and Mobility Programs

On the New York State Nurses Association website, data was compiled from 9 research articles NIOSH posted claiming:

- 60 to 95 percent reduction in injuries
- 95 percent reduction in workers' compensation costs
- 92 percent reduction in medical/indemnity costs
- As much as a 100 percent reduction in lost workdays (absence due to injury)
- 98 percent reduction in absenteeism (absence due to unreported injury)

Back pain is one of the most common and significant musculoskeletal problems in the world. The economic costs of low back disorders are staggering. Current statistics are not available. The NIOSH National Occupations Research Agenda from 1996 reports, "In a recent study, the average cost of a workers' compensation claim for a low back disorder was $8,300, which was more than twice the average cost of $4,075 for all compensable claims combined (NIOSH, 1996/2014). Bell, et al projects costs associated with overexertion injuries in the healthcare industry were estimated to be $1.7 billion in 2015.

There is solid evidence of hospitals and facilities that have implemented Safe Patient Handling and Mobility Programs have recuperated the initial costs within 1-3 years (OSHA, 2013):

- After creating a culture of safe patient handling, Englewood Hospital and Medical Center, a 520-bed acute care teaching hospital in New Jersey, reported that it met and exceeded its return-on-investment goal of 155% within 30 months.
- Northwest Texas Healthcare System, 1 404-bed acute care facility and medical center, instituted a minimal lift policy and reported that it nearly recouped the cost of its three-year program within one year.
- Kaleida Health Network, the largest healthcare provider in western NY, invested $2 million in a comprehensive safe patient handling program in 2004 and realized a full return on investment within 3 years. By 2011, the five hospitals within the network (with 70-511 beds) had saved $6 million in patient handling injury costs.
- After investing $800,000 in a safe lifting program, Stanford University Medical Center saw a 5-year net savings of $2.2 million. Roughly half of the savings came from workers' compensation, and half from reducing pressure ulcers in patients.
- When 31 rural community hospitals in Washington State implemented a "zero lift program," replacing manual patient lifting with lifting equipment and devices, patient handling injury claims decreased by 43 percent (Weinmeyer, 2016).
- Two years after instituting a safe patient handling program, a medical center in New Jersey saw a 57 percent reduction in workplace injuries and an 80 percent reduction in lost workdays (Weinmeyer, 2016).

These significant drops in both the number and the severity of injuries yield significant financial savings, too. Although the Occupational Safety and Health Administration (OSHA) acknowledges that the costs of instituting safe patient handling programs can be significant (e.g., equipment, training), it cites numerous studies demonstrating that the capital investments in these programs can be recovered in less than five years (Weinmeyer, 2016).

Types of Patient Movements (NIOSH, 2009)

- **Lateral transfers:** moving patients sideways (bed to stretcher)
- **Transfers involving sitting positions:** bed to chair, chair to chair, chair to toilet
- **Repositioning:** moving patients up in bed, side to side in bed, pulling patients up in chairs
- **Showering/bathing:** assisting patients with activities of daily living
- **Lifting/holding appendages:** for perineal care, dressing changes, etc.
- **Falls:** moving patients who have fallen on the floor back into bed
- **Ambulation:** assisting a patient to walk

Types of Lifting Equipment

Safe Patient Handling and Mobility involves the use of assistive devices to ensure that patients can be mobilized safely and that care providers avoid performing high-risk manual patient handling tasks. Using the devices reduces a direct caregiver's risk of injury and improves the safety and quality of patient care.

The types and specific equipment needed will vary according to the individual patient's needs. When providing equipment providers should consider:

- The needs of the individual - helping to maintain, whenever possible, independence
- Sufficient type and number of slings for the specific type for lift being used
- The safety of the individual and staff

Lifts

Powered Full-Body Lifts (Ceiling, Scales, Portable on Wheels and Free-Standing Rail Systems)

General explanation of lifts: Usually used for highly dependent patients to move patients out of beds, into and out of chairs, for toileting and bathing tasks, repositioning, lifting/holding appendages, lifting a patient off of the floor after a fall, and vehicle transfers. Can also be utilized for therapy services for limb strengthening and ambulation.

"Transferring a patient/resident using ceiling lifts was perceived to be less difficult more efficient, easier to access, lower the risk of injury, require less assistance, were rarely refused by co-workers, safer, more comfortable and easily accepted by patients when compared to floor lifts" (Alagir, Wei, Shicheng, et al., 2009, p. 990).






Powered Standing Assist Device (Sit-to-Stand Lift):

Useful in moving partially dependent patients who can cooperate, with some weight-bearing ability, in and out of seated positions in small spaces, such as bathrooms, to assist in toileting and can often be used with vehicles. Can also be used during physical therapy to strengthen the upper and lower extremities, and some designs can assist with ambulation.



Non-Powered Standing Aids

Patients requiring little assistance transferring to a standing position may utilize non-powered standing assist and repositioning devices for leverage. Patients must be able to grab onto the bars to bring themselves upright and sit down or pivot onto another seating surface. Also great for upper and lower extremity strengthening. Some may have free-moving wheels and a fold-down seat allowing for patient to sit during transport. Non-powered stand aids can be used for fall protection during transfer or toileting, and some have removable footplates to allow ambulation.

Photo Courtesy of Handicare

Bath Lifts and/or Adjustable Height Baths

Shower bathing trolleys and bathing systems make hygiene safer for staff and provide comfort to the patient. Portable floor based mechanical lifts and other safe methods can be utilized to assist patients in and out of these specialized bathing systems. Tubs with a side panel door and some that can raise and tilt back, allowing the patient to relax and ease of access for the caregiver.

Slings

Patient-care slings are fabric devices that can be attached to mechanical lifting equipment to temporarily lift or suspend a patient or body part to perform a patient-handling task. Slings may be disposable or assigned for individual use by specific patients during their time in the facility. Task-specific slings are designed for ambulation, hygiene, limb support, or to support the patient in a standing, supine, or seated position.

- **Standing slings:** assist direct caregivers with toileting or dressing patients, as well as for vertical transfers. ***Be careful, this can be a tripping hazard!***
- **Supine slings:** assist direct caregivers in performing lateral transfers (transfer in a supine position from bed to stretcher), making occupied beds, bathing patients, repositioning patients in bed, or assisting patients who have fallen on floor.
- **Seated slings:** enable direct caregivers to transfer and lift patients in a sitting position or reposition patients in a chair.
- **Hygiene slings:** are made of mesh fabric and can be used for showering patients.
- **Limb slings:** utilized when limbs need lifting and support such as when applying dressings or therapeutic sock/hose, access to hygiene is needed or general support of limb needed.
- **Turning slings:** used to roll a patient onto both sides without removing sling, allows access to patient's skin for inspection and care.
- **Specialty Slings:**
  - **Bariatric (full-body and seated):** Larger weight capacity and wider than standard size to support bariatric patient, for use in conjunction with 2nd motor. Full body used for logrolling, repositioning, lateral and chair/seated transfers.
  - **Amputee:** lifting both single and double (above knee joint) amputees from supine to seated position, or to and from seated position (Nelson, et al., 2009).

Slings

Photo Courtesy of HoverTech International

Considerations when using Slings:

- Some slings come with different length loops for attachment to the lift to increase comfort or the different positions. You have to choose the correct loops so that a patient is not at risk of slipping from the sling. Use the same loop configuration on both sides to reduce the risk of sideway falling.
- Selection of the wrong size sling can result in discomfort if the sling is too small and/or the patient slips through if it is too large.
- Wrong type of lift or sling for the particular patient can lead to inadequate support and a risk of falling.
- Incompatibility of lift and sling can result in insecure attachment between the two.
- Failure of lift and/or slings equipment due to lack of maintenance.
- The sling needs to be acceptable for the task, functioning correctly and avoiding staff or patient injury.
- Caregivers need to be trained on slings and on any special methods for use with the equipment.

Additional patient handling equipment:

- Slide boards or transfer boards - used to assist in moving to and from different furniture (e.g.: Seat to wheelchair, wheelchair to stretcher) slide pads and improved technology have reduced the effort required to perform these functions.

Slide Board

Photo Courtesy of BeasyTrans Systems, Inc.™

- Turntables - to assist in turning patients around.
- Electric profiling beds - for repositioning dependent patients.
- Thoracic walker - walkers used to assist in ambulation exercises; some have slings or pads to help hold the patient in place and prevent the risk of falling and/or the ability to hold oxygen, IV poles, lines, and tubes, as well as chest tube canisters to facilitate early mobility.

- Wheelchairs - manual and powered, powered wheelchairs provide the functionality of manual wheelchairs and additionally can assist a person to stand, act as a support when a person performs activities of daily living, reposition a person when seated to help prevent pressure sores and more.

Power Wheelchairs

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- Gait belts to assist patients who can support their own weight e.g.: to help them stand up.
- Lifting cushions used to assist patients to get up from the floor or bath.
- Bed levers, support rails/poles.
- Emergency evacuation equipment.

Emergency Evacuation Equipment

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- Suitable walking aids, handrails etc. for people needing minor assistance.
- Bariatric equipment is able to withstand additional weight and seats/slings are wider.
- Friction Reducing Devices (FRDs) and Repositioning Aids: designed to lower friction to make movement easier on flat surfaces for lateral transfers, moving patients up, down, and sideways in bed, as well as turning patients from side to side and pronation. Can be used to assist in sling or X-ray cassette placement, active and passive range of motion, strengthening exercises, and repositioning in a chair. Also, to ease insertion of slings on patients of size. Others included below can assist with lifting a patient from the floor.

Friction-Reducing Aids



Photos Courtesy of Jamar Health Products

- Air-Assisted Lateral Transfer and Positioning Devices
  - Patient is moved laterally on a cushion of air, substantially reducing the friction on the patient's skin, and decreasing the amount of manual effort required by staff to transfer patients from stretchers and tables and in some cases while in bed or on tables for proper positioning during procedures. Specialized, heat-sealed mattresses can be used in surgery to prevent cross contamination. The deflated mattresses can also be maintained under the patient during X-rays, computerized tomography (CT) scans, and magnetic resonance imaging (MRI) procedures. Extension hoses are available to facilitate use in MRI areas in order to leave the pump outside. Can also be used in conjunction with a flat-lying air-assisted lifting device to transfer a fallen patient onto a stretcher.
- Air-Assisted Lifting Devices
  - Utilize a powered air supply to inflate multiple mattress layers to raise the patient off of the floor after a fall. Depending on the type, the patient can either then stand up and transfer to a nearby chair or remain flat and be laterally transferred to another flat surface. The overall height can be determined by the caregiver, as each layer is filled with air independently. The firm surface allows a surface hard enough for cardiopulmonary resuscitation (CPR) and suspected/spinal injury patients to be supported, in conjunction with backboard and c-collar.

Air-Assisted Lateral Transfer and Positioning Devices

Photos Courtesy of HoverTech International

Assisted Lifting Devices

Photos Courtesy of HoverTech International

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Safe Patient Handling and Mobility Techniques

Patient handling techniques should be used in combination with equipment and technology to increase safer patient lifting, movement, and care.

When using equipment remember:

- Maintain a wide, stable base with your feet.
- Put the bed at the correct height (waist level when providing care; hip level when moving a patient).
- Try to keep the work directly in front of you to avoid rotating your spine.
- Keep the patient as close to you as possible to minimize reaching or overstretching.
- Lock the wheels of the bed or chair.
- Remove any clutter in the area.
- Make sure equipment is in good working condition.

Proning Teams

During the COVID-19 pandemic, some facilities implemented Proning Teams. These proning teams "typically consisting of 6 highly trained experts." This is performed to expand the dorsal lung regions, improve body movement, and enhance removal of secretions leading to improved oxygenation (McCabe, 2020).

Considerations When Performing Patient Handling and Mobility Activities

- Assess the patient's needs by utilizing a standardized Safe Patient Handling and Mobility Assessment Tool* (Which will guide the nurse to the recommended SPHM technology needed to safely lift, transfer, and mobilize the patient.)
- Decide on the proper equipment and determine availability.
- Know how to safely use the equipment.
- Assess the patient area and environment.
- Tell the patient what you plan on doing to safely assist them. Show the patient what to do, and then help them move through the activity.
- Work with other healthcare team members.

*SPHM ASSESSMENT TOOLS

Assessing a patient's mobility status is crucial especially for evaluating the risk of fall. A mobility assessment helps identify the SPHM technology needed to ensure safe activities while taking the guesswork and uncertainly out of deciding which SPHM technology is right for which patient. For both patient and staff safety, a patient's mobility level must be linked with use of SPHM technology. When used consistently, appropriate technology reduces the risk of falls and other adverse patient outcomes associated with immobility (Boynton, et al., 2020, p.13).

BioMed Research International reviewed thirty-one assessments that evaluate gait, transfer, and balance. Below are a few of the more common Mobility Assessment Tools (Olazarán, et al., 2019):

1. **Bedside Mobility Assessment Tool 2.0 (BMAT 2.0)** (Boynton, Kumpar, & VanGilder, 2020)

   This assessment tool (initially published by Banner Health) addresses immobility using a simple functional assessment and selection of appropriate equipment to safely mobilize the patient. It promotes consistency with evaluating mobility and assists with selecting the safest and least restrictive lift or patient handling device to use.

   This assessment tool is to be used as a nurse-driven bedside assessment of patient mobility. It walks the nurse through a four-step sequential functional task list and identifies the mobility level the patient can achieve.

   Level 1. Assessment of trunk strength and seated balance.

   Level 2. Assessment of lower extremity strength and stability

   Level 3. Assessment of lower extremity strength for standing

   Level 4. Assessment of standing balance and gait (Boynton, et al., 2020)

2. **Timed Up and Go (TUG)**

   A clinical assessment widely used to determine fall risk, assess balance, sit to stand and walking ability.

   Simple screening test that is a sensitive and specific measure of assessing the probability for falls among older adults. The assessment was designed initially for the older persons but has been validated for use with the following populations: Parkinson's disease, multiple sclerosis, hip fracture, Alzheimer's, cerebral vascular accident (CVA), total knee/hip replacement and Huntington's disease.

3. **Johns Hopkins Highest Level of Mobility Scale (JH HLM)**

   The Johns Hopkins Highest Level of Mobility (JH-HLM) scale is an 8-point ordinal scale used to quantify patient's observed mobility. JH-HLM is an essential element of the Johns Hopkins Activity and Mobility Promotion (JH-AMP) framework which emphasizes the need for systematic assessment of both patient functional ability and functional performance to establish daily patient mobility goals. There is a plethora of information and a number of tools available on the Johns Hopkins website that can be accessed here: https://www.hopkinsmedicine.org/physical_medicine_rehabilitation/education_training/amp/toolkit.html

NIOSH Recommended Maximum Weight Limit

In August of 2013, the National Institute for Occupational Safety and Health (NIOSH) clarified its recommendations for the Revised NIOSH Lifting Equation (RNLE). In general NIOSH does recommend a 35-lb. weight limit for inanimate objects. Considering the multiple variables involved when moving patients, NIOSH states the RNLE is not intended to be used for determining safe weight limits when lifting people. NIOSH refers to Dr. T. Waters research.

"For most patient-lifting tasks, the maximum recommended weight limit is 35-lbs. - but even less when the task is performed under less-than-ideal circumstances, such as lifting with extended arms, lifting when near the floor, lifting when sitting or kneeling, lifting with the trunk twisted or the load

off to the side of the body, lifting with one hand or in a restricted space, or lifting during a shift lasting longer than eight hours. The 35-lb. limit should help in identifying tasks for which the use of assistive lifting equipment would be appropriate. The rate of injury among workers handling patients shows that current approaches to prevent back injuries resulting from the manual handling of patients - such as training in biomechanics and the use of back-belts are not working" (Waters, 2007, p.55).

Additional factors effecting SPHM activities

- Direct caregivers must frequently lift or move patients while also cautiously handling their patients' intravenous (IV) or other tubing, casts, wound dressings, injured limbs, etc., which limits direct caregivers' flexibility in their lifting movements, placing them at ***greater*** risk
- Patient lifting, transferring, and handling is significantly more difficult and demanding than repositioning boxes
- **Patients don't come equipped with "handles"**

Some of the factors exacerbating the risk of work-related injuries for direct caregivers include those listed below, (Important to remember: these factors are compounding. For example, repetitious heavy lifting continually insults the musculoskeletal system and can cause multiple microfractures that worsen over time and the more of these factors occurring, the greater the risk of injury):

- Heavy physical work
- Lifting and forceful movements
- Bending and twisting (awkward postures)
- Static work postures

Additional risk factors for direct caregivers are multifaceted

- High acuity of patient population
- Higher nurse/patient ratios
- Staffing shortages with fewer staff to share in the lifting, turning, and repositioning of patients
- Direct caregivers working longer
- Overtime hours and longer shifts
- Stress due to organizational change - direct caregivers who work as temporary workers or "float" to units where they may be exposed to:
  - unfamiliar or completely unrecognized manual handling risks
  - unfamiliar patients
  - unfamiliar lifting equipment
- Increasing levels of obesity among the general population
- Hospitals promoting weight loss treatments, resulting in previously relatively unseen numbers of bariatric surgery patients
- Predominately female direct caregivers
- Aging workforce: more vulnerable to injury or repeated injury
- Cumulative trauma: both long and short-term

Benefits of Early Mobility

For more than six decades the medical community has been aware that prolonged bedrest and inactivity may be beneficial for the acute illness or injury, but also knowing that it can be harmful to the rest of the body, resulting in a number of adverse consequences to the patient. Problems incurred from immobility can complicate a primary disease or trauma which might actually become greater problems than the primary disorder (Dittmer & Teasell, 1993, p. 1428).

In addition to reducing the risk and incidence of nurse musculoskeletal injuries and MSD's, patient handling programs have reduced patient immobility-related complications improving patient health outcomes (Powell-Cope, et al., 2018). Another consideration for facilities is the prevention of "Hospital-Acquired Conditions", which are conditions that could reasonably have been prevented through the application of evidence based guidelines, potentially resulting in reimbursement implications from Medicare (Center for Medicare and Medicaid Services).

Potential Complications of Bedrest

Cardiovascular System: (Knight, 2018)

- Cardiovascular complications of mobilization include an increased heart rate and deconditioning, decreased cardiac reserve, venous thromboembolism.

Respiratory and Hematological Systems: (Knight, Nigam, & Jones, 2018)

- Prolonged bedrest impairs respiratory function. The weight of the supine body imposes mechanical restrictions on the movement of the ribcage, reducing tidal volume. That weight also compresses blood vessels creating poor blood flow.

Renal, Reproductive and Immune Systems: (Knight, Nigam, & Jones, 2018)

- Prolonged bedrest can cause electrolyte imbalances, urinary tract infection and renal calculi
- It has also been linked with falling levels of sex hormones in men and women
- Immobility has a pro-inflammatory effect and bedrest weakens the immune system

Muscles, Joints and Mobility: (Knight, Nigam, & Jones, 2019)

- Disused muscles lose mass and strength, become weaker and undergo atrophy

Gastrointestinal, Endocrine and Nervous Systems: (Knight, Nigam, & Jones, 2019)

- Harmful effects of bedrest on the gastrointestinal system include gastric reflux and constipation
- Bedrest and immobility promote insulin resistance and impaired glucose tolerance. Prolonged bedrest is likely to lead to changes in brain tissue and brain biochemistry
- Patients confined to bed may experience sensory deprivation leading to psychosocial symptoms

Bones, Skin, Self-concept, and Self-esteem: (Knight, Nigam, & Jones, 2019)

- Immobility may lead to reduced bone mass and density, bone demineralization which leads to loss of calcium from bone
- The risk of fracture is known to be significantly higher after prolonged immobility

- Prolonged pressure on skin over bony prominences may lead to pressure ulcers
- Prolonged bedrest can lead to depression, anxiety, forgetfulness, and confusion

Consequences of Unsafe Manual Patient Handling

Patient

There are primarily two ways patients may experience physical harm related to manual patient handling:

- First are injuries that can occur due to manual lifting and those include, but not limited to skin tears, abrasions, contusions, lacerations, sprains, strains, dislocations, fractures, concussion, and bleeding
- Second are the medical consequences related to lack of mobility and increased length of stay

Patients have also expressed emotional factors associated with patient handling activities that should also be considered (Nelson & Baptiste, 2004).

- Fear of being harmed or dropped
- Fear of caregiver(s) being hurt
- Loss of dignity during lifting process
- Depression and anxiety
- Increased dependency on others

Direct Caregiver

Symptoms of musculoskeletal disorders include pain that varies according to stage:

- **Early stage:** pain may disappear after a rest away from work
- **Intermediate stage:** body part aches and feels weak soon after starting work and lasts until well after finished work
- **Advanced stage:** body part aches and feels weak even at rest; sleep is affected; light tasks are difficult on days off
- Other signs and symptoms may include tingling or numbness, fatigue, or weakness, redness and swelling, and/or loss of full or normal physical movements

Benefits of Safe Patient Handling and Mobility

Patient

In addition to reducing the risk and incidence of direct caregiver musculoskeletal injuries and MSD's, patient handling programs have reduced patient immobility related complications improving patient health outcomes (Powell-Cope, et al., 2018). In the current healthcare environment, considering

poor staffing and more acutely ill patients, many patients are not afforded the benefits of early mobility.

Positive findings for patients in facilities that have safe patient handling and mobility equipment, and policies include: (Nelson, et al., 2008)

- Lifting devices are said to increase the frequency and ease of moving a patient out of bed
- Improvements in the quality of life of previously bedridden nursing home residents
- Greater frequency of being out of bed, in turn physical functioning may also be improved
- Allows more frequent repositioning in bed, improving skin integrity
- Improved behavior is thought to be a result of reducing unwanted personal contact and moving a resident in a less painful manner when using lifting equipment
- Staff members and a few researchers have relayed data linking a decrease in combativeness with use of lifting equipment
- Improved quality of care
- Improved patient safety and comfort
- Improved patient satisfaction
- Reduced risk of falls, being dropped, friction burns, dislocated limbs from improper moving
- Reduced skin tears and bruises
- Enhanced rehabilitation efforts

Direct caregiver

- Reduced risk of injury
- Improved job satisfaction
- Injured caregivers are less likely to be re-injured
- Pregnant caregivers can work longer
- Staff can work to an older age
- More energy at the end of the work shift
- Less pain and muscle fatigue on a daily basis
- Improved quality of life outside of work
- Increases staff morale

Facility

A SPHM Program consists of a team approach defining the importance of a needs assessment of the patient, having the appropriate equipment readily functional and accessible, ongoing education, with policies that include evaluation of the program, staff participation in training and purchasing of equipment with administrative support for the allocation of resources (Collins, Nelson, Sublet, 2006).

Facilities that implement a robust SPHM Program report:

- Reduced number and severity of staff injuries
- Improved patient safety and satisfaction
- Reduced workers' compensation medical. Legal and indemnity costs
- Reduced restricted and/or lost workdays of employees
- Reduced use of sick leave by employees
- Improved recruitment and retention of direct caregivers
- Fewer resources required to replace injured staff
- Increased staff morale

In addition to the aforementioned benefits of a SPHM Program, Federal organizations have set standards that facilities need to adhere to in an effort to protect direct caregivers and patients. "The Joint Commission (TJC) addresses safe patient handling in health care design through its Environment of Care standard: EC.02.06.05 #1. Although this standard does not provide criteria specific to safe patient handling and mobility, it does require organizations that are building new facilities or undergoing major renovations to follow the Facility Guidelines Institute (FGI) health care design and construction guidelines or their state construction guidelines, which often are the FGI *Guidelines*. Since the FGI *Guidelines* documents include the PHAMA (Patient Handling and Mobility Assessments) and other design criteria related to safe patient and resident handling, projects required to meet these standards must be designed and built to facilitate safe patient handling" (FGI, 2019, p. 20).

To support this initiative, in 2012, TJC published: *Improving Patient and Worker Safety: Opportunities for Synergy, Collaboration and Innovation*, informing healthcare facilities of the impact on staff and patients from lifting, transferring and positioning patients, specifics of how to develop SPHM programs and encouraging implementation of a program in an effort to decrease avoidable injuries to both patients and staff (TJC, 2021, pp. 62-73).

Recommended Solutions

To proficiently support a SPHM culture shift and to reduce patient handling injury requires a collaborative effort by healthcare organizational leaders, nurses, and all direct care workers. The MNA calls for an approach that would require all healthcare facilities in the State to develop and implement a Safe Patient Handling and Mobility Program. The program would strive to protect patients from injury and lengthy hospitalizations and provide a safer working environment for direct caregivers. The program would mandate the following:

- **Create a SPHM Committee** - Each facility will implement a SPHM Committee which ideally MUST be comprised of multidisciplinary staff members. Including, but not limited to: SPHM coordinator/manager; Director of Occupational Health; Ergonomics Specialist; Operations Coordinator/finance purchasing; Engineering/facilities; Education; Director Materials Management or representative; Central Transport Services; Senior Manager; Infection Control; Physicians; Environmental services/housekeeping; Laundry; Director of Rehabilitation Services

or representative; Director of Nursing/representative; Direct caregiver representatives from each discipline; Unit/peer leaders/champions; Expand membership as needed (Association of Occupational Health Professionals in Healthcare, 2020).

- **A systematic process in each facility for addressing ergonomics, recognizing occupational health and safety hazards, and preventing injuries specific in each healthcare facility** - Each facility will have a documented organization-wide Safe Patient Handling and Mobility program which will include, but is not limited to:
  - ◊ Policy and Procedures
    - * Describing their safer patient handling and mobility philosophy and approach
    - * Describing how the institution will manage the enforcement of the policy and procedures
  - ◊ Appropriate safe patient handling equipment readily available
  - ◊ Minimally annual education and training programs at each facility
  - ◊ Education for all staff prior to the implementation of new equipment
  - ◊ Mechanism for addressing direct caregivers' refusal to perform unsafe handling and mobilization
  - ◊ Minimally, annual maintenance of equipment
- **Needs assessment of patients' lift and transfer requirements and resulting lifting equipment needs** - Each facility will implement Safe Patient Handling and Mobility methods that are appropriate for their patient populations and census.
- **Specialized training of direct caregivers, with required demonstration of proficiency in handling techniques and use of lift equipment** - Each facility will use a resource nurse and/or educator for their patient handling and mobility education and training programs.
- **Protection for workers with a non-punitive process for resolution following refusal to lift or handle patients due to concerns about patient and/or direct caregivers' safety** - When the direct caregiver determines the safety of the patient or the caregiver may be at risk because of insufficient: staff, equipment or adequate training, direct caregivers will not be subject to disciplinary action by the hospital or any of its managers or employees.

Advantages of Safe Patient Handling and Mobility Legislation

- Reduces work related injuries
- Reduces unsafe handling variability across healthcare institutions
- Creates standard approaches for collecting, measuring, comparing, and sharing health outcomes associated with patient handling practices
- Ensures patient and health care workers' safety

The Massachusetts Hospital Ergonomic Task Force champions this philosophy, however, without legislative support to assure that healthcare organizations prioritize a culture of safety and assure that nurses are issued the education, equipment, and supportive human resources to facilitate SPHM behaviors, program efforts will remain stalled and develop in piecemeal.

Safe Patient Handling and Mobility Legislation

Texas was the first state to enact SPHM legislation in 2006. Eleven additional states have enacted SPHM legislation or adopted regulations to date: California, Illinois, Maryland, Minnesota, Missouri, New Jersey, New York, Ohio, Rhode Island, Hawaii, and Washington. Most of the state's legislation includes: Establishing a SPHM committee, Determine Best Practices, Training Programs, Evaluation of Program/ Policy Effectiveness, Construction/Renovations include building for lift equipment. A few include: Patient/family education, lift teams or designated staff for lifting activities.

Types of healthcare facilities (HCFs) covered by the legislation varies. Depending on the state, the legislation may cover - hospitals, rehabilitation facilities, long-term care, licensed healthcare facilities, licensed home health agencies, outpatient surgical centers, clinics, or diagnostic and treatment centers.

"Why don't all HCFs have safe patient handling policies and procedures and equipment?" Unfortunately, we have all known or suspected this, but a 2015-16 NPR investigative series on injured nurses revealed several reasons why SPHM programs are being undermined or loosely monitored: (Weinmeyer, 2016, p. 419)

- First, nurses, nurse assistants, and other direct caregivers are too often considered secondary within the highly hierarchical medical world; so, it does not make responding to this problem an organizational priority (Weinmeyer, 2016, p. 419).
- Nurses at some hospitals have reported that their claims have been ignored by administrators and hospital leadership, suspecting one reason could be financial - specifically, that money paid to an injured worker or used to implement a safe patient handling program is money not spent on **infection control measures** or other patient care matters (Weinmeyer, 2016, p. 419).

Unfortunately, resistance to establishing safe patient handling laws and programs and the lax oversight of existing programs continue to stifle their development and implementation (Weinmeyer, 2016, p. 419)..

The MNA first filed SPHM Legislation in Massachusetts, An Act Providing for Safe Patient Handling, in 2002. Each legislative session since, MNA has continued to file this legislation in an effort to improve conditions for both patients and direct caregivers. However, the Massachusetts Hospital Association continues to be our strongest adversary. The 2015-16 NPR investigative series reported factors that can hamper enacting safe patient handling laws includes:

- Opposition to enacting protective legislation has been framed by politicians and hospital lobbying groups in terms of keeping unnecessary, burdensome regulations and "costly mandates" out of the hospital setting (Weinmeyer, 2016, p. 419).

And, regarding enforcement of extant laws:

- NPR reported that officials admitted these laws typically have little enforcement power because conducting inspections and assessing adherence to the law requires money, personnel, and resources that many state labor safety departments simply do not have (Zwerdling, 2015b, p. 7-8).
- Even the assistant secretary of OSHA acknowledged the slow uptake and enforcement of these laws, stating that Congress is perhaps best equipped for moving these standards forward by creating a national law on safe patient handling (Weinmeyer, 2016, p. 419).

David Michaels says Congress could help prevent widespread injures by passing a new law. “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,” he says. “A lot of hospitals still believe this old myth that hospitals are safe places to work” (Zwerdling, 2015b, p. 4).

Apparently, Congress has been woefully slow to act vis-a-vis legislation that would mandate specific protections against the injury of healthcare personnel and the Occupational and Safety Health Administration (OSHA) has essentially had its hands tied in this regard via lawsuits and congressional inaction. Meanwhile, some facilities and health systems have supported actual legislation enacted to protect healthcare workers, an example being California’s Hospital Patient and Health Care Worker Injury Protection Act of 2012. In Massachusetts, potential legislation apparently continues to “not pass go” based on lobbying and opposition by the Massachusetts Hospital Association (Carlson, 2015, p. 2).

Unfortunately, the United States has lagged behind many other countries enacting SPHM legislation. “The United Kingdom, Australia, and Canada have instituted national “no lift” policies that ban the manual patient handling techniques many still embrace in the United States, instead mandating the use of assistive devices to move and lift patients” (FGI, 2019, p. 20).

Add SPHM Contract Language - When Applicable

Model Contract Language

During an eight-hour workday, it is estimated nurses move an average of 3,600 pounds per shift (or 5,400 pounds for a twelve-hour shift) (Noble, & Sweeney, 2018).

1. This facility shall establish a policy of “No Manual Lifting” to protect patients and workers from injury.
2. Multidisciplinary team members will comprise an Ergonomics and Safe Patient Handling and Mobility Committee.
3. Establish universal use of a comprehensive Patient Mobility Assessment, assessing appropriate equipment needs in relation to patients’ status.
4. Direct caregivers will be actively involved in the selection of various lifting equipment to be purchased, appropriate for the limitations of their work environment and appropriate for the patients they care for in each and every department.
5. Lifting devices must be readily accessible and available for use when needed and in good working order.
6. Computer workstations shall be designed according to ergonomic guidelines and ongoing education will be provided when workstations are shared by different employees
7. If “Lift Teams” are developed, team members will move patients using only safe lifting equipment.

Patient Handling Tips (Swenson, 2020) & (Wood, 2016)

In this age of do-it-yourself, don't! Don't lift patients by yourself.

Prepare yourself

- Ideally stay in shape. Being in good shape, core strengthening, helps avoid injuries.
- Maintaining a healthy BMI reduces the strain on your body.
- Adequate sleep reduces your risk of injury
- Stretch to loosen muscles - tight muscles are more susceptible to injury
- Keep in mind that repetitive strain can seriously injure your back.
- Remember body mechanics can't protect your back during lifts.
- Know where the mechanical lifts are and how to use them.
- Using mechanical lifts requires sufficient time and adequate space.

Prepare for the transition

- Assess the needs of the patient, including equipment necessary for a safe transition
- Assess your needs, how many staff are needed to safely perform the move with the appropriate equipment?

When transitioning a patient

- Ask the patient for help-even the weakest will want to help.
- Stay as close as possible to the patient during moving activities.
- Push instead of pull-gives you more power.

Lastly

- Report any injury as soon as possible!

The "number one way to avoid injuries on the job is to use lift devices instead of trying to lift a patient or resident manually, said Harris, adding 'Sometimes a nurse may think it's too time consuming to get and use a lift or that the person is not too heavy. However, it only takes one wrong move to injure yourself'." so my advice is always using a lift device with the proper training and protocols (Wood, 2016).

Reporting Injuries/Workers Compensation

It is imperative to file an incident report, no matter what degree of pain/discomfort you may be experiencing, as you never know if the pain/discomfort continues the next day, reappears the next week or even months later. Some facilities have policies regarding the timing of reporting an injury, some do not. Generally, most facilities strongly mandate filing a report within 24 hours. This is not so. Under the workers compensation law (MGL. C. 152, s41) for injuries on or after January 1, 1986, a claim must be filed with the insurer within 4 years of the date you become aware of a connection between your injury/illness and your employment.

Safer Working Positions For Computer Workstations

Increasing IT and regulatory demands on documentation emphasizes the importance of having workstations that are ergonomically friendly for multiple users. The following are important considerations when attempting to maintain neutral body postures while working at the computer workstation: (Occupational Health and Safety Administration)

- **Hands, wrists,** and **forearms** are straight, in-line and roughly parallel to the floor.
- **Head** is level or chin slightly down, forward facing, and balanced. Generally, it is in-line with the **torso**.
- **Shoulders** are relaxed, and **upper** arms are at the side of the body.
- **Elbows** stay in close to the body and are bent between 90 and 120 degrees.
- **Feet** are fully supported by the floor or a footrest may be used if the desk height is not adjustable.
- **Back** is fully supported with appropriate lumbar support when sitting vertical or leaning back slightly.
- **Thighs** and **hips** are supported by a well-padded seat and generally parallel to the floor.
- **Knees** are about the same height as the hips with the **feet** slightly forward.

Disclaimer: All photos in this SPHM Toolkit are examples of SPHM equipment, the Massachusetts Nurses Association does not endorse any of the companies that have provided copyright permission for their use.

Resources

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NIOSH (www.cdc.gov/niosh/topics/ergonomics) (https://www.cdc.gov/niosh/topics/safepatient/default.html)

Occupational Safety and Health Administration (OSHA) (www.osha.gov/SLTC/ergonomics/index.html)

Safe Lifting Portal (www.safeliftingportal.com)

U.S. Department of Veterans Affairs (https://mobile.va.gov/sites/default/files/user-manual-safe-patient-handling-app.pdf)

Work Injured Nurses' Group: WING USA (www.wingusa.org)

Culture Change

Health Research & Educational Trust (2016). Fostering a culture that fully integrates patient and worker safety. http://www.mtpinnacle.com/pdfs/HRETHEN_ChangePackage_CultureofSafety.pdf

Mobility Assessment Tools

- Bedside Mobility Assessment Tool (BMAT):
  - ◊ Two-page to determine the appropriate patient handling and mobility equipment or device to safely move or mobilize the patient:
    - * https://www.safety.duke.edu/sites/default/files/BMAT-Adult.pdf
- Timed Up and Go (TUG):
  - ◊ Detailed information regarding application of the TUG in different patient populations:
    - * https://www.sralab.org/rehabilitation-measures/timed-and-go
  - ◊ One-page handout for TUG:
    - * https://www.cdc.gov/steadi/pdf/TUG_test-print.pdf
- Johns Hopkins Highest Level of Mobility Scale (JH HLM):
  - ◊ Instructions for use of the assessment tool
    - * https://www.dropbox.com/sh/zq1k86xfuk59e8b/AAD4gdeodl4J5TJRdbjRWf_Ga/Measurement%20Tools%20-%20English?dl=0&preview=JH-HLM+Instructions.pdf&subfolder_nav_tracking=1
  - ◊ PowerPoint containing details about the assessment
    - * https://www.johnshopkinssolutions.com/wp-content/uploads/2017/02/Functional-Activity-and-Mobility-Documentation-for-Hosp-Adult.pdf

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If you are interested in more information about Safe Patient Handling and Mobility, the MNA legislation, or would like to join the MNA's SPHM Task Force, please contact the MNA Division of Health and Safety at: 800/882-2056.

Perhaps there will be a significant change in practice. When using safe patient handling equipment will be valued as a method of delivering safer care to our patients and save staff from injuries instead of "just one more thing to do."