

Safe Handling of Patients with Limited Mobility: An Evidence Base Summary of the Issues and Solutions

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The Issue

- **Work related musculoskeletal disorders (MSD) in health care are the leading and most costly occupational health problem in the U.S.**

Definition

- **Musculoskeletal disorder (MSD):**
 - **An injury or disorder of the muscles, nerves, tendons, joints, cartilage, or spinal discs**
 - **Represents range of disorders which can differ in severity from mild periodic symptoms to severe chronic and debilitating conditions**

Definition

– **Examples:**

- **Carpal tunnel syndrome, tenosynovitis, tension neck pain, and low back pain**

– U.S. Department of Labor

The Issue

- **Can result in life altering, career ending, disabling, and chronic conditions to health care workers**
- **Repeated manual lifting, transferring, and repositioning of patients / clients is leading cause of these injuries**
- **MSDs due to manual patient lifting occur in all health care environments**

The Issue

- U.S. patient population has seen a dramatic increase in obesity since 1985
- Problem of lifting patients is compounded by the increasing weight of patients to be lifted and the rapidly increased number of older people who require assistance with the activities of daily living

The Facts

- Rate of days away from work due to MSD for nursing aides, orderlies, and attendants is more than 7x the national MSD average for all occupations

The Facts

- Back injuries due to manual patient handling remain the #1 injury reported in health care
 - #1 cause of the most disabling injuries is 'overexertion'

The Facts

- The 'overexertion' category includes injuries related to lifting, pushing, pulling, holding, carrying
- These are defined as 'high risk tasks' and are performed by direct care workers every day millions of times per day across the country

The Facts

- # of MSD injuries reported by health care workers is probably low because many injuries are unreported
 - Estimated that as many as 50% may go unreported

The Cost

- Healthcare worker back injuries alone (other MSDs excluded) are estimated to cost \$20 billion annually in direct and indirect costs
- Overexertion injuries (#1 cause of most debilitating injuries) historically accounts for more than one quarter of the overall national cost each year

The Cost

- **Impact of these disabling injuries in health care workers is not only costly for health care organizations in terms of workers compensation cost, but also negatively impact retention and recruitment of health care workers**
 - **Protection from disabling injury is a key factor to recruitment and retention**

The Cost

- **Many leave seeking a job less physically demanding**

Impact on Patient Care

- **Unsafe patient handling can contribute to patient injury such as falls during transfers, skin tears, and damage when pushing and pulling a patient / client from bed to chair or repositioning in bed**

Impact on Patient Care

- **Manual handling can be painful or aggravate existing pain and discomfort for the patient**
- **A patient's dignity and privacy can be compromised during difficult manual patient-handling situations**

The Evidence

- **High risk patient handling tasks such as transferring a patient / client from a bed to chair, repositioning in bed, or lifting from the floor may require a health care worker to lift excessive loads using sustained and extremely awkward postures that require bending and twisting**

The Evidence

- **Unexpected movements from the patient or client increases the stress on the workers' body**

The Evidence

- Extensive research has documented high levels of stress on the bones, joints, and tissues of the back, neck, hands, and wrists of health care workers when performing manual patient lifting and handling tasks

The Evidence

- The physical effort required to repeatedly lift and move patients manually is greater than the musculoskeletal system can tolerate
- Health care workers have been taught for decades that “proper body mechanics” would prevent injury during transfers

The Evidence

- 35 years of research shows that there is no evidence that body mechanics alone will protect health care workers from MSDs when manually lifting patients or clients

The Evidence

- The evidence shows there is no safe way to perform manual patient handling
 - The National Institute for Occupational Safety and Health (NIOSH) lifting guidelines sets the maximum recommended weight for safe patient handling at 35 pounds in the best of circumstances

Evidence Based Solutions

- Recent research does show that MSD injuries in health care environments involving workers and patients due to manual lifting and handling can be reduced or prevented through effective multifaceted, participatory programs

Evidence Based Solutions

- Effective programs include:
 - Active involvement of health care workers throughout the program
 - Visible administrative support

Evidence Based Solutions

- Use of equipment to safely lift, move, reposition, and transport patients / clients and reduce the risk of injury such as height-adjustable electric beds, mobile mechanical lifts, ceiling-mounted lifts, friction-reducing devices / lateral transfer aids, bed repositioning devices

Evidence Based Solutions

- Equipment used is chosen to ‘fit’ the needs of the patient and caregiver and the task to be performed
- Training on proper use of patient / client handling equipment / devices

Evidence Based Solutions

- Clinical tools, such as patient assessment protocols, for Safe Patient Handling programs (SPH)
- SPH procedures that guide processes for safe lifting and movement of patients / clients with variety of clinical needs including consideration for patient of size
- No manual lifting policies

The Bottom Line

- Patient handling options in the home environment are considerably more limited than facility options
- Repeated manual lifting and moving of patients / clients cannot be performed safely by any health care worker regardless of age, gender or level of fitness

The Bottom Line

- It doesn't take handling an obese patient to exceed the 35 pound lifting / handling guideline set by NIOSH
 - The above guideline would be exceeded when boosting a 110 lb. patient on regular bed linens
 - The weight of a leg of a 350 lb. patient would be approximately 62 pounds

The Bottom Line

- Patient safety is compromised when employee safety is not adequately addressed

The Bottom Line

- **The National Institute for Occupational Safety and Health (NIOSH) advocates a safe lifting program that includes three main components:**
 - 1. Mechanical lifting equipment**
 - 2. Training on use of equipment**
 - 3. Written lifting policies**