Executive Order #511
Patient Handling
Summary of Standards and Recommendations

This summary of standards was prepared by the Massachusetts Department of Labor Standards ("DLS") for informational purposes and does not constitute an official interpretation by OSHA or any other agencies/entities listed as a source of standards or guidance in this document, nor an exhaustive recitation of the requirements therein. Rather, the summary is provided for the health and safety committees to assess current health and safety management of this hazard against the nationally-recognized standard. As the information provided in this document is only a summary, please consult the full standard(s) as well as any other needed sources of technical assistance for developing or improving your patient handling ergonomics program.

It is important to note that state workers are not covered by OSHA standards; the information generated by the health and safety committees will serve to guide the Massachusetts Employee Safety and Health Advisory Committee in identifying effective and practical strategies and policies for improving the health and safety of state workers.

Technical Standard or Guideline:

There is no specific OSHA standard for patient handling or other ergonomic hazards. The OSHA guidance document "Guidelines for Nursing Homes" (OSHA 3182 2003) states that "Under the OSH ACT, the extent of an employer's obligation to address ergonomic hazards is governed by the general duty clause, 29 U.S.C. 654(a)(1)." For your information, the general duty clause reads as follows:

(a) Each employer –

(1) Shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;

The OSHA guidance document "Guidelines for Nursing Homes" (OSHA 3182 2003), and other guidance documents referenced therein, serve as the primary information source for this document. *Note that ideal recommendations might vary slightly for different settings such as hospitals, but this document serves as the only comprehensive source of OSHA guidance for the patient handling ergonomics issue.*

OSHA-Referenced Additional Information Sources:

"Patient Care Ergonomics Resource Guide: Safe Patient Handling and Movement," from Patient Safety Center of Inquiry, Veterans Health Administration and Department of Defense.

"Elements of Ergonomics Programs," National Institute for Occupational Safety and Health (NIOSH).

The OSHA guidance document is used here as the primary national standard/guideline for this hazard. Your agency may be following an internal standard of practice or a standard from another source for this hazard. For the gap analysis, if you are following a standard other than the primary worker protection standard/guideline listed above, please indicate which standard, if any, is being followed by your agency. If this is an internal standard of practice, please report the basis upon which the determination was made to adopt the standard.

Note: *The means of preventing injuries from conducting patient restraints or injuries from aggressive patient behavior are not covered in this document, but instead are addressed in the answers document for* ***Workplace Violence****. It is important to identify whether or not patient aggression was a factor in injury incident reports so that the appropriate prevention method can be implemented. For example, an employee's shoulder could be injured while lifting a compliant patient, or an employee's shoulder could be injured because an aggressive patient grabbed the employee's arm and twisted while the employee was approaching the patient. Different solutions would be needed to address the different cause of these injuries, for example, use of mechanical lift assist devices versus training for staff on patient behavior modification techniques.*

<u>Upper Management Support / Policy:</u>

The OSHA guidance document recommends that a policy be implemented that manual lifting of patients be minimized in all cases and eliminated where feasible. A sample policy developed as part of an OSHA settlement agreement is available in the web links section at the bottom of this document.

OSHA recommends that employers develop a process for systematically addressing ergonomics issues in their facilities. OSHA's recommendations for this process include:

- Provide management support.
- Involve employees.
- Identify problems.
- Implement solutions.
- Address reports of injuries.

- Provide training.
- Evaluate ergonomics efforts.

The NIOSH document "Elements of Ergonomics Programs" provides a more comprehensive overview of how to develop and implement an ergonomics program, and includes a toolbox of forms and checklists. The NIOSH document is not specific to ergonomic risk from patient handling, it is a general guidance for developing any ergonomics program.

Training and Certification/Licensing:

OSHA recommends that **workers who will be conducting lifting and repositioning activities**, such as nursing assistants, should be trained in:

- Policies and procedures that should be followed to avoid injury, including proper work practices and use of equipment. *Note that the most effective training in this area will include hands-on training and a skills assessment of trainees. Practice and skills assessment will ideally occur in a setting equivalent to employees' actual use of these work practices/equipment (for example, practice conducting a patient transfer in a small, crowded patient bathroom versus doing this in a large, open training room). Sample skills assessment documentation tools are provided starting on page 18 of the sample policy given in the web links section.*
- How to recognize musculoskeletal disorders (MSDs) and their early indications.
- The advantages of addressing early indications of MSDs before serious injury has developed.
- The procedures for reporting work-related injuries at your facility.

OSHA recommends that in addition to the training outlined above, **supervisors**, such as charge nurses, may need addition training on:

- Methods for ensuring use of proper work practices.
- How to respond to injury reports.
- How to help other workers implement solutions.

OSHA recommends that **staff members responsible for planning and managing ergonomics efforts** receive additional information and training that will allow them to:

- Identify potential problems related to physical activities in the workplace through observation, use of checklists, injury data analysis, or other analytical tools.
- Address problems by selecting proper equipment and work practices.
- Help other workers implement solutions.
- Evaluate the effectiveness of ergonomics efforts.

Administrative Controls:

It is recommended that **standard protocols or decision flowcharts** (if different variables must be assessed that may change the appropriate action) be developed, including use of assist devices and required number of staff, for the specific lifts, transfers, or repositionings that are conducted at your facility. These should be based on an expert source. One model are those included in the "Patient Care Ergonomics Resource Guide: Safe Patient Handling and Movement," from Patient Safety Center of Inquiry, Veterans Health Administration and Department of Defense, link provided at the end of this document.

It is recommended that to provide necessary information for selection of the appropriate lift method, for each patient a written assessment of criteria for safe patient handling and movement be filled out. A sample form is provided on page 71 of the Veterans Administration "Patient Care Ergonomics Resource Guide" available through the web links section at the end of this document.

In the case of a limited quantity of assist equipment, it is recommended that it be distributed such that it provides the greatest benefit. For example, if there are a limited number of electrical height-adjustment beds, these are placed in the rooms of patients with the lowest level of mobility.

It is recommended that a system is put in place for **reporting and documenting patient handling ergonomic injury incidents**. This should include clear guidelines to employees for when and how to report an injury. It is recommended that individual reports are assessed to identify needed corrective actions. It is also recommended that the full set of ergonomic injuries periodically assessed including a **trend analysis**, to identify areas where training, change of equipment, or other interventions may be needed. *As indicated in the training section above, it is also recommended that as a prevention measure, staff are trained to report early signs of MSDs so that corrective action can be taken before a serious injury occurs.*

It is recommended that **design** of any construction or renovation of the physical building, and any purchase of facility equipment include **ergonomic considerations**. This might include considerations such as: size of rooms/bathrooms necessary to use lift assist devices, size of door openings, elevator doors, toilet height, slope of ramps, slip resistant flooring, toilet height, toilet rails, door knob design, etc. Staff input will be a key element in identifying opportunities for preventive design.

Equipment and Engineering Controls:

The use of patient handling equipment is a fundamental component of a safe patient handling program. The types and number of needed devices will be dependent on your patient population. Identifying which devices are appropriate for a specific lift, transfer, or repositioning will be dependent on variables such as: can the patient assist and cooperate, can the patient stand on their own/bear weight, level of patient mobility, patient size body weight, and limiting patient medical conditions.

As indicated in the administrative controls section, it is recommended that standard protocols be used that include details on when to use specific assist devices.

Examples of common lift assist, repositioning and other motion aid equipment includes:

- Portable lift devices
    - Mechanical lift device (e.g., hammock/sling)
    - Mechanical sit-to-stand or stand-assist device
- Ceiling mounted lift device.
- Devices to reduce friction force during lateral transfers such as:
    - Low friction slide sheet
    - Transfer board
    - Low friction mattress covers
    - Mats with vinyl coverings and rollers
    - Air-assist lateral sliding aid
    - Flexible mattress inflated by portable air supply
- Height adjustable beds
- Beds that convert to chairs
- Lift cushions and lift chairs
- Geri and Cardiac chairs
- Ambulation assist device
- Gait belts
- Rolling shower and toileting chairs
- Height adjustable shower gurney or lift bath cart with waterproof top.
- Built-in or fixed bath lifts
- Ramp scales

Selection of Patient Handling Assist Devices for Purchase

It is recommended that selection of lift-assist devices for purchase or lease include practical considerations such as those outlined on pages 17 – 18 of the OSHA "Guidelines for Nursing Homes: Ergonomics for the Prevention of Musculoskeletal Disorders." General practical considerations include:

- How many staff are needed to operate the device?
- Maintenance and repair issues:
  - How easily technical assistance be obtained?
  - How easily can service and repair be obtained"
  - How easily can parts be obtained?
- Power supply:
  - What are the needed electrical outlets?
  - What is the space necessary for the battery charging unit, what is the complexity of re-charging activities and time required for battery charging?
- Size of device and device base:
  - Will it fit under the bed or other furniture?
  - Is it small enough to be stored in close proximity to the area where it will be used? Is it too large to be stored anywhere at your facility?
  - If this is a battery device, what is the space needed for the charging unit?
- Speed and noise level of the device.
- Versatility of device, e.g., could it be used for a sit-to-stand lift as well as an ambulation assist device?
- Range of lifting area. Will the lift go to floor level? How high will it go?
- How many sizes and types of slings are available? What types are slings are available for optimum infection control?

Practical considerations for specific assist devices are included in the "Points to Remember" section for each device beginning on page 19 of the OSHA document.

Staff Input: Selection of specific lift assist devices should also include input from the staff who actually conduct the patient handling activities. These staff may have knowledge of important practical considerations not thought of by others, and also selection of models felt to be most user-friendly by staff will lead to greater and more successful use of this equipment.

Web link to full standard or guideline:

Informational resources identified below can also be found on our website at www.mass.gov/dols/eo511.

OSHA Guidance, "Guidelines for Nursing Homes" (OSHA 3182 2003) available at www.osha.gov, specific link below:

http://www.osha.gov/ergonomics/guidelines/nursinghome/index.html

Sample Lift Policy, from the OSHA website:

http://www.osha.gov/CWSA-attachment/beverlyliftprogramguide_pdf.html

If this link is no longer current, search "Lift Program Policy and Guide" in the OSHA website search box.

Veterans Administration document, "Patient Care Ergonomics Resource Guide: Safe Patient Handling and Movement," from Patient Safety Center of Inquiry, Veterans Health Administration and Department of Defense.

http://www.visn8.va.gov/patientsafetycenter/resguide/ErgoGuidePtOne.pdf

NIOSH document, "Elements of Ergonomics Programs," National Institute for Occupational Safety and Health (NIOSH):

http://www.cdc.gov/niosh/docs/97-117/\