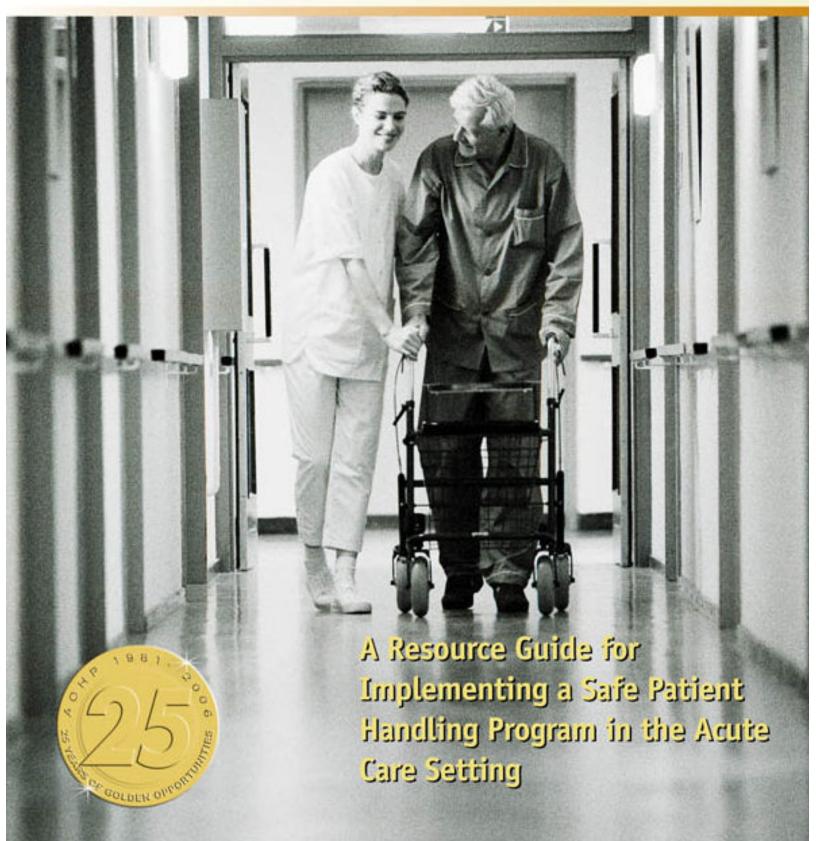


# Beyond Getting/Started





# Beyond Getting Started: A Resource Guide for Implementing a Safe Patient Handling Program in the Acute Care Setting

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#### **Introduction**

A primary goal of the Association of Occupational Health Professionals in Healthcare's (AOHP) Alliance with the Occupational Safety and Health Administration (OSHA) is to develop educational materials related to the targeted areas identified in the Alliance. Patient handling, bloodborne pathogens, and emergency preparedness are the three areas of focus for the Alliance. The Alliance recognizes that patient handling practices impact not only the healthcare worker but also the patient. Safe patient handling practices will reduce the risk of the patient falling or experiencing skin breakdown from repositioning or lateral transfers in bed. In addition, implementing safe patient handling practices will reduce the facility's financial burden with regard to patient claims and workers' compensation claims.

This resource guide addresses patient handling with the goal of providing the necessary tools for the occupational health professional (OHP) in healthcare to implement a safe patient handling program. There is a great deal of emerging information, and this resource guide contributes toward the consolidation of that information.

Safe patient handling programs frequently are initiated by or become the responsibility of the OHP. In some cases, this new responsibility may not include the additional resources to implement a program effectively and efficiently. This resource guide identifies the basic steps and processes necessary to implement a safe patient handling program in a comprehensive manner, including the need for adequate funding.

Background information and differences between acute and long-term care facilities are reviewed in Sections 1 and 2. Building a foundation for the program's success is outlined in Section 3. Sections 4 and 5 describe the process (assessment, planning, implementation, and evaluation) of establishing a safe patient handling program. Appendix A includes the AOHP position statement on patient handling as well as relevant references. Appendix B shows samples of items (forms, job descriptions, etc.) that might need to be developed for the program, along with a reference section with links to the web for easy access to information.

The OSHA Alliance Implementation Team hopes that this resource guide will serve as a valuable tool in establishing and maintaining a safe working environment for healthcare workers. Feedback is much appreciated and can be forwarded to our national office via e-mail at info@aohp.org.



#### Section 1

#### **Background**

For decades, musculoskeletal injuries, especially back injuries, have been among the most frequent injuries experienced by healthcare workers who provide bedside nursing care. These injuries can be debilitating, changing the injured person's life forever. Not only do injured workers experience pain and suffering, but sometimes they cannot return to work, thus adding to the well-documented nursing shortage now and in the foreseeable future. In recent years these types of injuries have gained national attention both from within and outside the healthcare industry.

In July 2004 AOHP issued a position statement on patient handling. It includes additional background information, strategies to reduce injuries related to patient handling, and references. (See Appendix A.)

Prior to the AOHP statement, an OSHA ergonomic standard was signed into law in 2000 by President Clinton. AOHP participated in the development of this standard by providing testimony in Washington, D.C., and in Chicago during the public hearings. Although the final ergonomic standard was repealed by Congress in 2001, OSHA addressed the issue of patient handling in nursing homes with the historic Beverly settlement. In this settlement OSHA required the development of a mandatory safe patient handling program in the facility.

As a result of this settlement, OSHA developed a set of guidelines for the nursing home industry as a whole. These "Guidelines for Nursing Homes: Ergonomics for the Prevention of Musculoskeletal Disorders" recommend that "manual lifting of residents be minimized in all cases and eliminated when feasible." Although the guidelines are written for nursing homes, OSHA has recommended that they be adopted in acute care facilities. While there is no national, formal standard for safe patient handling, OSHA addresses ergonomic concerns, including safe patient handling, through the general duty clause that requires every employer to provide a safe and hazard-free work environment.

Several states have attempted to legislate ergonomic programs for healthcare and have been successful. As a result, experts predict that legislative efforts will continue. For example, on June 17, 2005, Texas became the first state to initiate a law requiring hospitals and nursing homes to implement a safe patient handling and movement program. This law requires the adoption of a policy "to identify, assess, and develop strategies to control the risk of injury to patients and nurses associated with the lifting, transferring, repositioning, or movement of a patient." The policy must include "an evaluation of alternative ways to reduce risks associated with patient handling, including the evaluation of equipment and the environment" and "restriction, to the extent feasible with existing equipment and aids, of manual patient handling equipment or movement of all or most of a patient's weight to emergency, life-threatening, or otherwise exceptional circumstance."



In March 2006 legislation was signed in the State of Washington that mandates safe patient handling programs. By February 1, 2007, Washington hospitals must establish a safe patient handling committee. In addition to other requirements, equipment must be purchased by January 30, 2010. A stated ratio of lifting equipment of one lift per 10 acute care beds is also included in the bill. Perhaps most important, the state established a \$10 million fund to assist facilities with the purchase of such equipment.

Our international colleagues are well ahead of us with regard to practices in the United States. As early as 1993, England established a national policy that prohibits nurses from lifting patients. Other countries, including the Netherlands, Switzerland, Australia, Finland, Ireland, and Canada, also prohibit the manual handling of patients.

In 2003 the American Nurse's Association (ANA) launched the nationwide "Handle With Care" program. The mission of this initiative is to mount an industry-wide effort in health care to prevent back and other musculoskeletal injuries through greater awareness and training, with increased use of assistive equipment and patient-handling devices. The ANA position statement and promotional materials for safe patient handling can be found at <a href="http://nursingworld.org/readroom/position/workplac/pathand.pdf">http://nursingworld.org/readroom/position/workplac/pathand.pdf</a>.

In 2005 the American Physical Therapy Association (APTA), the Association of Rehabilitation Nurses (ARN), and the Veterans Administration published a white paper regarding safe patient handling. As a result of this collaboration, representatives from these groups meet periodically to discuss safe patient handling and the therapeutic use of mechanical equipment.

The leading nurse researcher in this arena is Dr. Audrey Nelson, Director of the Patient Safety Center of Inquiry at the James A. Haley Veterans Administration Medical Center in Tampa, Florida. Dr. Nelson and her colleagues are working to dispel the myths related to patient handling and are providing evidence-based findings to support the use of assistive devices for patient handling.

Some of the myths associated with safe patient handling include:

- Ø Body mechanics training is effective in preventing job-related injuries.
- Ø Back belts are effective in reducing risks to caregivers.
- Ø Nurses who are physically fit are less likely to be injured than nurses who are not physically fit.
- $\varnothing$  It is safe to lift a 200-pound patient.
- Ø Mechanical lifts are not affordable.
- Ø If a facility buys lifting equipment, staff will use it.
- Ø Lifting patients is the only high-risk patient handling task.
- Ø Injuries to nurses can be prevented by careful screening of nurses before hiring.
- Ø All lifting devices are equally effective.
- Ø Use of mechanical lifts eliminates the risks involved in manual lifting.
- Ø If a facility has a no-lift policy, healthcare workers (HCW) will stop lifting.



An exciting development in the past year was the  $\alpha$ eation of a nursing school curriculum for safe patient handling. The curriculum, developed by ANA, Dr. Nelson, and the National Occupational Safety and Health Institute (NIOSH), was piloted by 29 nursing schools that worked with vendors to secure equipment for training nursing students. In the spring of 2006, NIOSH posted the curriculum for public comment. The creation and incorporation of this curriculum into nursing programs across the country will contribute to a necessary paradigm change for truly  $\alpha$ eating a safe patient handling culture. As this effort moves forward, consideration also needs to be given to developing similar curricula for other allied health professionals who handle patients.



#### Section 2

#### <u>Differences Between Acute-Care and Long-Term Healthcare Settings</u>

The differences between acute care and long-term care settings are shown in the following table:

Acute Care	Long-Term Care	
Includes hospitals, out-patient surgical centers, clinics. Frequently a specialty facilityfor example, children, orthopedic, trauma, university medical center, etc.	Includes facilities that provide skilled or non-skilled nursing care. Might have a specialization such as head trauma or Alzheimer's.	
Usually a temporary facility. An individual is admitted as a "patient" to receive treatment.	Individuals are considered "residents." The HCW performs a service in the place of residence.	
Mobility tasks quite varied:	Mobility tasks more standardized:	
Ø Frequent procedures, diagnostic testing, surgery, etc.	Ø Minimal routine testing and diagnostic procedures.	
Ø Major focusmany lateral transfers, boosting up in bed, ambulation, higher emphasis on rehabilitation, rapid progression from a passive lift to an active one toward independent mobility	Ø Major focusgetting out of bed, positioning, ambulation, transfers to chair, toileting, boosting up in bed, and increasing functional capabilities	
Short length of stay < 4 days	Extended length of stay >7 days	
Acuity level can change several times during a stay (even hourly). As a result mobility needs can change frequently, even within an eight-hour shift. Thus, the	Acuity level can change throughout the day as a result of medication change, fatigue, or "sundowner's" effect.	



Acute Care	Long-Term Care
need for a quick, reliable means of assessing patient mobility.	
Numerous departments with "high- risk" tasks. Many specialty areas such as OR, ED, Radiology, Bariatrics, Rehabilitation, etc.	"High-risk" tasks tend to remain constant throughout the facility. Few specialty areas Nursing, Dietary, Environmental Services, PT, OT.
Higher ratio of registered nurses compared to ancillary staff such as patient care associates, transport staff, and radiology staff.	Higher ratio of ancillary staff compared to registered nurses such as certified nursing assistants.
Licensure by the State Department of healthrequired	Licensure by the State Department of Healthrequired
Commission on the Accreditation of Rehabilitation Facilities (CARF)voluntary	Commission on the Accreditation of Rehabilitation Facilities (CARF)—voluntary
Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) accreditation regulations voluntary	
American Nurses Credentialing Center Magnet designationvoluntary	
OSHA Mandates	OSHA Mandates

Traditionally, much of the focus on safe patient handling programs has been directed toward long-term healthcare settings because the injury statistics have been so high. In 2003 OSHA published "Guidelines for Nursing Homes: Ergonomics for the Prevention of Musculoskeletal Disorders." OSHA has stated its hope that acute-care facilities will follow these guidelines and increase the use of assistive devices to reduce manual patient handling. However, because of the differences shown in the



previous table, safe patient handling programs in acute care are far more complex to implement than in long-term care.

JCAHO signed an Alliance with OSHA on July 27, 2004. One of the goals of that Alliance is to develop training and education materials related to ergonomics. Further, JCAHO plans to raise awareness of workplace safety and develop case studies in order to demonstrate the business value of safety. In addition to its Alliance with OSHA, JCAHO has also included reducing the risk of patient harm resulting from falls as one of its national patient safety goals. The elimination of manual handling practices and the proper use of assistive devices will assist in fall reduction.

Many facilities are now pursuing "Magnet" designation through the American Nurses Credentialing Center. A total of 14 forces of magnetism have been shown to increase nurse satisfaction and improve job satisfaction and retention. One of the forces, Force Six, addresses the issue of employee safety. As part of the process to achieve "Magnet" designation, a narrative must address the issues of employee safety and provide examples of successes. A safe patient handling program would be one example of addressing employee safety.

In conclusion, a variety of differences exists between acute and long-term care when analyzing patient handling. However, the basic steps for implementing a safe patient- handling program are the same regardless of the setting. The specific steps for such an implementation are outlined in the following sections.



#### Section 3

#### **Building a Foundation**

OSHA's hospital e-tool lists the essential components of a safety program. These components can be utilized as a framework to design a facility's program. Components include (1) management leadership/employee participation, (2) workplace analysis, (3) accident and record analysis, (4) hazard prevention and control, (5) medical management, and (6) training. Gaining management support and assembling the team for a safe patient handling program are the foundations of the program's success.

#### Management Support

Before embarking on the establishment of a safe patient handling program, the initial step is to engage the support of the facility's management team related to employee injury reduction, employee safety, ergonomics, and safe patient handling. Management support is required for several reasons:

- Ø To be consistent with the objectives of the organization to begin the process of establishing a program. In addition, other factors such as JCAHO accreditation requirements (Environment of Care; Worker Safety Initiative) and the desire to achieve "Magnet" designation, the Malcolm Baldrige National Quality Award, or the OSHA Voluntary Protection Program Star Award can have a positive influence of gaining approval for the program. Also, it is important to include OSHA's position on patient handling.
- Ø To allocate the human and monetary resources necessary to implement such a program. Though at first, implementing a program may seem expensive, the real question is whether it is too expensive not to implement a safe patient handling program. A thorough cost-benefit analysis will make the financial case.
- Ø To determine how to integrate safe patient handling into the facility-wide ergonomics/injury prevention for which the OHP should have an integral role.

Administration's fiscal support is key to the program's success. The optimal strategy is to integrate safe patient handling concepts into the existing ergonomics program or quality improvement program and then to utilize team members in every step of the process. The controller may be able to assist with the organizations' return on investment (ROI) requirements, and vendors can help with a cost-benefit analysis for implementing a program.



#### **Team Formation**

Team formation is critical. Having the "right" members on the team will lead to the success of its efforts. Consideration of the following factors is key to success:

- Ø Define to whom the team will be reporting--Safety Committee, Occupational Health, Nursing Service, or another department. A joint reporting mechanism is also an option. The higher up the executive chain the reporting structure, the more effective it will be. It is especially important to have the senior nursing executive as a champion as well as front-line employees. The reporting mechanism needs to include a process and schedule for reporting program progress toward meeting goals.
- Determine members of the team. A multidisciplinary team is needed to identify key players and the roles they will play in the process. Examples of disciplines that should be included are nursing (front line and administrative), patient care associates, physical therapy, occupational therapy, occupational health, education, infection control, facility engineering, purchasing, and physicians. Ancillary or specialty departments also need to be included, such as radiology, surgery, transport/escort, laundry, marketing, housekeeping, and clinical engineering. Expand the membership as needed. When in doubt, include a representative of the department.
- Ø Identify a team leader. This decision can be made by administration or by another mechanism within the facility. The leader should be provided with the resources of time and support staff to lead the program. Clerical support should be provided to assist with meeting arrangements and other support needs such as minute taking, data entry, etc.
- Ø Be sure that team members view themselves as "champions" for the program. They will help deliver and sell the message as the program is rolled out. The "champions" will serve a vital role in maintaining the program's effectiveness and support the culture change.
- Ø Involve front-line employees in order to achieve "buy-in" as the program moves ahead.
- Ø Develop the team's vision, mission, and objectives.
- Ø Provide training to all team members so that everyone can participate on an equal basis.



#### Section 4

#### **Getting Started**

The components of developing and implementing a safe patient-handling program include assessment, planning, implementation, and evaluation. Not unlike the nursing process, activities of one step can overlap or occur concurrently, and there can be times that it is necessary to back up a step. Members of the team and the leader of the team need to remain focused yet flexible as the steps are accomplished.

#### Step 1: Assessment

The basic question that an assessment seeks to answer is this: Is there a problem in the facility? The components of the assessment step include a needs assessment and data analysis.

#### Needs Assessment

Elements of the needs assessment include three major components: collection of injury data, a worksite analysis and a literature review.

#### 1. Collection of Injury Data

- Ø Gather historical data that includes musculoskeletal injuries by department, type of healthcare worker, body part injured and root cause of the injury. Review one, three, or five years of work-related injury data. A minimum of one year of data needs to be analyzed. Multiple years of data provide an historical view to evaluate trends that are often more important than raw numbers. Strive to evaluate as many years as possible to increase the clarity of data. If the team leader does not have specific injury data, ask the facility workers' compensation carrier to provide a loss run report (details discussed below) for the time period to be analyzed.
- Ø Collect OSHA recordable injuries—the injuries that require treatment beyond first aid, restricted, or days away from work. Calculate the musculoskeletal incidence and severity rates related to patient handling by department using the OSHA 300 logs.
- Ø Obtain direct workers' compensation (WC) costs. Loss run reports can be obtained from the facility's workers' compensation carrier. These reports detail all dollar costs associated with all injuries (claims). The costs are broken down into medical costs, indemnity costs (lost wages), and other costs. Also, obtain the dollar amount that is allotted for reserves (the money anticipated for claims). Note: The loss run report also will provide injury detail if



there is no on-site electronic capability to track injuries. Remember, workers' compensation costs come off the bottom line of the facility's balance sheet.

- Ø Determine indirect WC costs. In addition to the direct WC costs, there are the indirect or hidden costs related to an injury. These costs include staff accommodation for modified duty, supervisor time, decreased staff morale that decreases productivity, and costs related to replacement workers. Indirect costs have been estimated to be two and a half to four times the direct cost of a claim. Although chief financial officers and financial analysts tend to discount indirect costs, they are real none-the-less.
- Ø Gather other data, including the employee turnover rate and employee population demographics such as age. Human Resources can provide this data. The employee turnover rate is an important piece of data for comparison once the program is implemented. If the turnover rate data includes why the employee left the department or employment, review of this data might provide additional support for a safe patient-handling program.

#### 2. Worksite Analysis

Worksite analysis refers to a comprehensive evaluation of the department needs, along with existing equipment and how/why it is or is not utilized. Staff input is essential to gain insight into the issues that are interfering with the proper use of equipment. The analysis includes:

- Ø Equipment inventory, including availability, storage, and use
- Ø Patient dependency needs
  - § Independent
  - § Supervision
  - § Minimal assistance
  - § Maximum assistance
  - § Dependent
- Ø Potential high-risk patient-handling tasks. Staff can easily identify high-risk tasks.
- Ø Departments with high risk or special needs related to patient handling. Break down jobs into tasks, identify hazards, and develop solutions to reduce risk. Examples of departments with high-risk tasks in acute care include:
  - § Operating Room
  - § Emergency Department
  - § Radiology
  - § Critical Care



- § Home Care
- § Rehabilitation
- § Bariatric Unit
- § Orthopedic Unit
- § Neurological Unit

#### 3. Literature Review

- Ø Review the literature to see what others have done. This step gives an evidence based approach to solving the problem. It provides an opportunity to learn what has worked and to avoid pitfalls as the program is implemented. Note: The reference section of this resource guide provides sources to conduct the literature review.
- Ø Review articles about success stories—for example, Tampa General Hospital.

The first step in conducting the assessment is to plan how the assessment will be conducted. Establish a time line. Enlist the help of team members and provide the support and guidance needed to complete their portions of the assessment. Determine whether training is needed for staff to conduct the assessment or if the assessment should be conducted by an outside provider. This step is a learning experience for all team members. Allow more time than seems needed. If data is not computerized, explore ways to format data electronically for ease of retrieval and analysis. Consider that vendors and clinical professionals who work with vendors might be able to perform equipment assessments, usually at no charge.

#### Data Analysis

Data analysis involves the following steps:

- Ø Identify the leading types of musculoskeletal injuries related to patient handling, as well as the departments and staff involved in the injuries.
- Ø Identify the root causes of injuries in the high-risk areas.
- Ø Identify what issues prevent staff from using existing equipment--lack of availability, lack of storage, lack of training, lack of support to take the time to go get the equipment, maintenance problems, battery issues, sling availability, etc.
- Ø Identify the costs from the loss run reports associated with patient handling injuries.
- Ø Complete a cost-benefit analysis of the return on investment and the cost to the organization if nothing is done based on the history projected forward.



#### Step 2: Developing a Plan

Developing a plan (business plan) includes brainstorming options for a program model, determining the selection of equipment, gaining administrative approval (if not obtained during the assessment step), and creating an implementation plan.

- Ø Brainstorm options of program models based on the data analysis. Consider various levels of intervention as possible solutions, including the costs for human resources, training, equipment, and potential injury reduction with projected cost savings. Determine the best method to roll out and maintain a safe patient handling program in the facility--pilot first or whole house. Determine how the methodology for safe patient handling, i.e., each caregiver responsible for their patients, a lift team, or team lifting within individual departments. What are the benefits and drawbacks of each option?
- Ø Develop a policy on safe patient handling based on the model adopted.
- Ø Make the case for administration. Once the data is analyzed, an executive summary and report need to be prepared for administrative review. The report needs to include cost justification (i.e., return on investment), a plan for implementation, and staffing requirements for the program.

#### Ø Equipment

- § Evaluate the type of mechanical devices that are needed to "engineer out" manual patient handling based on assessment of patient needs with a focus on safety for the caregiver, the patient, and rehabilitation goals. There are a variety of devices that are available, including:
  - Friction reducing repositioning/transfer sheets
  - Lateral transfer devices that can convert into a sitting position
  - Beds that automatically turn patients or change into a sitting position
  - Ceiling lifts
  - Sit-stand assistive devices with ambulation option
  - Non-mechanical minimal assist devices
  - o Portable passive lifts (sling lifts) that are able to turn and reposition patients, pick patients up from the floor, and extract patients from vehicles.



- § Contact a variety of vendors who have the type of equipment the program would need. An equipment fair is an opportunity for staff to see equipment, try it, and talk to vendor representatives about their products. Explore financial risk-sharing opportunities. These may include a pilot program, vendor contract conditions, training, maintenance, and warranty agreements. In addition, some vendors offer options of clinical support.
- § Contact vendor references.
- § Involve front-line staff in the evaluation, selection, and piloting of new products to obtain buy-in for equipment use as the program rolls out.
- § Develop a process for equipment trials, product evaluation feedback, and the ordering of equipment. Always ask for pilot use of the equipment for at least two weeks to determine issues of applicability, storage, and maintenance.
- § Determine if any of the current equipment can be re-deployed within the facility. Have front-line employees participate in this process.
- § Develop program components, including policy formation to support the program. Select the best approach for the facility's culture and financial means. There are three basic approaches to select from:
  - o Task-specific: Identify the specific patient-handling activities that will be addressed in each phase of implementation. Example: lateral transfers.
  - O Department-based: All necessary assistive devices would be available in every department at all times. Note: For both the task-specific and department-based programs, consideration must be given to an implementation plan (staged or facility-wide), development of a time line, and training regarding what would constitute competency with equipment use.
  - Lift team: Composition of team, job description, lift team policy, dress code, log sheets, paging criteria/system, competency based.
- § Identify a coach or champion from every department. These individuals will be the key players in all aspects of the implementation and maintenance of the program within their departments. The coach should be viewed as an informal leader in the department and should have the respect of staff. It would be ideal to have a coach on each unit for each shift.
- § Utilize resources such as the Patient Safety Center. Review patient mobility assessment tools and algorithms for patient transfers. These can be adopted and



implemented. Visit the Patient Safety Center website at http://www.visn8.med.va.gov/patientsafetycenter/ for this information. In addition, vendors may have additional resources related to program planning and implementation.

- § Develop a plan for support service departments such as the laundry, etc.
- S Develop a plan to educate patients and their families about the program. Consider a plan to educate patients and families both prior to a scheduled admission and an emergency admission. The program may include having the patient sign a release stating his/her understanding of the safe patient handling practices and printed materials such as brochures or posters.
- Sevelop a plan to investigate and assist staff in learning when an injury or near miss occurs. Consider implementing "after action reviews" (AAR). An AAR is a process of transferring knowledge that is learned from one task to the same task being performed in a different setting. The Army and a number of successful companies including Shell, Motorola, and General Electric have implemented AARs. They have been adopted by the Veterans Administration Hospitals (VHA) as back injury prevention programs have been deployed throughout the VHA system. The AAR involves the interaction of a work group and facilitates learning for all involved. AARs can be formal, informal, or personal. Regardless of the type of AAR, the questions that are asked during an AAR include:
  - o What was supposed to happen?
  - o What happened?
  - o What accounts for the difference?
  - o How could the same outcome be avoided the next time?
  - o What is the follow-up plan?

Note: For more information on AARs, see the References section of this guide.

§ Develop a plan for monthly reporting, review of patient handling injuries, and dissemination of injury data. Post-injury review by the team can be an opportunity to review the injury and identify ways to prevent future injury. It is also a method of alerting the unit manager and working with the manager to develop an action plan for prevention of future injuries. Injury data should be reported to department managers, the safety committee, chief executive nursing officer, and senior administration.



- § Consider using the implementation of a safe patient-handling program and the data analysis associated with this program as part of the facility's process improvement efforts that are required for JCAHO.
- § Develop a plan for managers and employees who are not compliant with the program.



#### Section 5

#### Getting It Going and Keeping It Going

#### Step 3: Implementation

The third major step in creating a safe patient-handling program is the actual implementation.

- Ø Identify a roll-out date.
- Ø Educate by training all staff, from senior management to front-line employees, regarding the ergonomic risk factors inherent in lifting, transferring, and repositioning patients; the high-risk tasks, and the new program and processes. All staff on all shifts need to be included. Work with staff education to implement the training. This may include the vendor providing training or the development of a train-the-trainer program for the facility.
- Ø Publicize by working with the media/public relations department to communicate, publicize, and promote the new program and its results once implemented. Include a plan for ongoing communication throughout the program to maintain staff awareness of the effort
- Ø Evaluate these elements for successful implementation:
  - § Remember that program is targeted to change the organization's culture and individual human behavior. This is not an easy task!
  - § Be consistent and patient as the new policy is implemented.
  - § Determine clinical staff competence, and identify remedial training needs.
  - § Support, encourage, and recognize the department coaches/champions.
  - § Assess the ability of designated individual to oversee the implementation process.
- $\varnothing$  Be aware if barriers to change:
  - It is difficult to change behavior. Manual patient handling has been the norm for the vast majority of healthcare workers. For generations, the "culture" of healthcare has perpetuated manual patient handling. It will not change overnight. At one long-term nursing facility, staff would take the equipment into the room, close the door and act as though they had used the equipment to transfer the patient! In fact, they had reverted to the familiar manual patient handling process. The leader of the implementation process



should prepare the team for resistance to change. Incorporate information on change into staff education, and acknowledge staff concerns about change. Continue with participation of front-line staff in this change process to continue to promote buy-in.

- Ø Complexity of the acute-care setting especially in start-up:
  - § Multiple layers of management
  - § Strong clinical and non-clinical management
  - § Departments that work in "silos" yet are interdependent departments
  - § Wide variety of patient care activities
  - § Multidisciplinary care, including support departments that provide care
  - § Wide variety of committees
  - § Multiple decision makers

#### Step 4: Evaluating Outcomes

The final step, evaluating outcomes, includes the following:

- Ø Re-evaluate elements of assessment. Monitor injury data on a monthly basis by using the components of assessment phase. Identify improvements and areas that continue to have patient-handling injuries. Modify the program as indicated.
- Ø Check employee satisfaction. Obtain employee feedback regarding implementation of the program. Encourage employees to report any injury in a non-punitive environment.
- Ø Note the employee turnover rate. Collaborate with Human Resources to determine an appropriate interval to reassess the employee turnover rate.
- Ø Be sure that the safe patient handling program can also be included as an employee benefit during recruitment activities.
- Ø Determine patient satisfaction. Develop a tool to evaluate patient and family response to patient handling with assistive devices while hospitalized and as part of a post-hospitalization patient satisfaction survey.



- $\varnothing$  Review the program annually for its accomplishments, and set goals for the upcoming year. Modify the program an indicated.
- Ø Stay the course!



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SECTION VI: HEALTH-CARE FACILITIES

CHAPTER 1. HOSPITAL INVESTIGATIONS: HEALTH HAZARDS

SECTION VII: ERGONOMICS

CHAPTER 1. BACK DISORDERS AND INJURIES

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#### Appendix A

Association of Occupational Health Professionals in Healthcare Position Statement on Patient Handling

#### Historical/Background Data

Back injuries and other musculoskeletal disorders related to patient handling are the leading cause of workplace disability for nurses and other direct patient care providers. Nurses have one of the highest incidences of work-related back injuries/disorders of all occupations. (1,2)

In 2002, there were a total of 1,436,200 cases of non-fatal occupational injuries and illnesses involving days away from work among all workers. (3)

Nursing aides, orderlies and attendants accounted for the second highest number of non-fatal occupational injuries and illnesses involving days away from work in private industry. (3)

In addition, this group had the second highest incidence of injuries and illnesses that required recuperation away from work beyond the day of the incident (79,000). (3)

This same group had the highest number of musculoskeletal disorders (44,400) in 2002. Trunk injuries involving the shoulder and back represented the highest number of musculoskeletal injuries/incidents, accounting for 36 percent of all cases. (3)

Of 487,900 cases of work-related musculoskeletal disorders involving days away from work, nursing aides, orderlies, attendants and registered nurses accounted for 55,200 of those cases. (3)

Of the total 1,436,200 cases of non-fatal occupational injuries and illnesses involving days away from work, nursing aides, orderlies, registered nurses, health aides and licensed practical nurses accounted for 119,200 cases. (3)

The most recent nationally reported annual occupational illness and injury health care costs (direct and indirect) were conservatively estimated at more than \$1.256 trillion. Direct costs accounted for \$418 billion. (4,5)

Each year, approximately 40,000 nurses report illnesses from back pain. This represents more than three quarters of a million lost work days annually due to back injuries among nurses (6,7). Many of these injuries were related to patient transfer and repositioning tasks. Back injuries may not be the most frequent injury, but they do result in the most lost workdays.

In 2004, the Bureau of Labor Statistics (BLS) reported registered nurses held about 2.3 million jobs in 2002, and it is projected to be a growing occupation. With fewer younger people entering nursing, the



nursing workforce is aging faster than the general workforce. Nurses are feeling overburdened, overstressed and overworked. The American Nurses Association (ANA) (2001) completed an on line survey of 4,826 nurses regarding work-related health and safety issues. Nurses are most concerned with acute and chronic effects of overwork and stress, disabling back injury and developing a bloodborne disease from a contaminated needle stick. (8)

The importance of developing reliable approaches for prevention of back injuries and other musculoskeletal disorders related to patient handling is critical. The Association of Occupational Health Professionals in Healthcare (AOHP) supports actions, policies and laws that will help to establish a safer environment of care for nurses and patients as it relates to safer patient handling and prevention of injuries.

#### **Definitions**

Manual patient handling and associated risks
 Manual patient handling refers to tasks such as lifting, transferring, transporting and repositioning of patients without the use of assistive devices. Such handling has been shown to increase the risk of back and other musculoskeletal injuries/disorders for nurses and other direct care workers. (9)

The risk is additionally increased because of several other factors that are difficult to control, such as: patient characteristics (asymmetric distribution of weight; lack of stable areas to grip, making it difficult to keep patient's weight close to the nurse's body per "proper" body mechanics); awkward posture and positioning if patients are agitated, combative, non-responsive or limited in ability to assist; and structural physical environmental factors that may limit space and make it difficult to utilize proper body mechanics.

The exposure to back injuries and musculoskeletal disorders persists even with additional staff assistance. (9)

Back injury/musculoskeletal disorder
 Back injuries and musculoskeletal disorders describe a collection of conditions affecting and not limited to muscles, nerves, tendons, ligaments, joints, cartilage or spinal discs. (10) Common manifestations of these disorders include low back pain, sciatica, rotator cuff injury and carpal tunnel syndrome. (11) Many job tasks can cause and/or attribute to these disorders, including patient handling.

#### Lift Equation

The National Institute for Occupational Safety and Health (NIOSH) provides the basis for safe practices for lifting and handling. A NIOSH "lifting equation" sets the maximum recommended weight limit at 51 pounds under ideal conditions. It applies to all men and 75% of women. (10) Studies have applied the NIOSH lifting equation to nursing practice, and they found the estimates of compressive force to the spine were all above the action limit permitted as safe. (12, 13)



#### Control Strategies

Control Strategies in occupational health are designed to minimize or eliminate workers' exposure to hazards. Three control strategies have been used, including work practices ("proper" body mechanics), administrative controls (enforcement of health and safety policies, training procedures) and engineering controls (removal or elimination of the hazard through the use of specialized equipment.)

The two most common control strategies of work practices and administrative controls have been utilized in healthcare facilities for some time in the prevention of patient handling injuries without acceptable results. Thirty-five years of research dispute the belief that classes in body mechanics and training in lifting techniques prevent job-related injuries. (13,14, 15,16,17,18,19,20,21,22)

OSHA considers engineering controls to be used first to implement primary prevention of injury/exposure. Engineering controls have been a less utilized control strategy in healthcare. When safe patient handling engineering controls are utilized, the hazard is removed or eliminated. It is the position of AOHP that engineering controls are where the focus, training and resources need to be applied to provide safe patient handling for healthcare workers and patients.

Great strides have been made in utilizing engineering controls in healthcare, such as preventing bloodborne exposures and communicable airborne diseases. This needs to include the area of patient handling. In recent years, the advance of technology has provided a multitude of tools for engineering controls in patient handling tasks. Examples include full-body sling lifts, stand-assist lifts, lateral transfer devices, ceiling lifts and friction reducing devices. These lift/assist devices remove the manual dimension of patient handling and assume a large portion of the patient's weight, relieving the caregiver of the total effort and risk with patient handling duties. Effectiveness of this equipment is dependent on other factors as well, including, training, availability, and sufficient space for and maintenance of equipment. (9) In addition, it is extremely important to obtain input from the individuals who actually must use the engineering controls so that the best device is selected.

#### Exceptional Situations

In certain "exceptional situations," patient handling may be unavoidable. This may occur when a caregiver is presented with life-threatening situations or care of pediatric patients that may prohibit the use of assistive devices. In such situations, activities with patient handling should be minimized when possible without affecting patient care or exceeding the abilities of the caregiver.

#### Improved Quality of Care

Improved quality of patient care is related to the use of assistive devices with patient handling activities. With the elimination of manual patient handling, patients have been noted to have less pain and fewer injuries with the activity, and they are more secure and stable. Overall, with the use of assistive devices for patient handling, there is improved respect and quality of care for the patient.



The Royal College of Nursing in the United Kingdom has had a directive since 1992 regarding the manual handling of patients. Its position is "There is rarely conflict between the needs of the patient and the safety of the nurse." The Manual Handling Operations Regulations of 1992 permits manual lifting only where it is 'unavoidable.' These regulations require an employer to avoid the need for his employees to carry out manual lifts 'so far as is reasonably practicable.' An employer could face considerable legal consequences for allowing employees to carry out lifts that are not 'reasonably practicable,' and employees may be subject to disciplinary action. (23) In 2002, it was decided that an employer was in breach of duties under the regulations and fined after finding that there were 'real risks of injury inherent in the Drag lift,' which was the method of moving patients habitually used in the hospital where the claimant worked. (24)

#### AOHP's Position

AOHP's position is to provide a safe and healthy environment for the nurse/caregiver and patient. The organization recognizes all of the above and recommends:

- Employer and management commitment to adopting an institutional policy for the safest approach
  to handling, moving and transporting patients. The safest approach is the use of assistive equipment,
  discouraging the use of manual handling. There needs to be investment in adequate supply of
  appropriate devices, ensuring availability of equipment and adequate storage space for equipment,
  proper disinfection based on infection control principles, education of staff on usage, and
  designating resource personnel for ongoing assessment
  and evaluation.
- Employee participation is vital in the assessment and implementation process to encourage acceptance and success of the program. Staff have a wealth of essential information about specific hazards in their work environment associated with patient handling and can assist in guiding actions that will ensure program effectiveness and positive outcomes.
- Staff must also be involved and given authority in the evaluation and selection of patient handling devices and equipment. They also need to be involved with initial and ongoing education/training activities related to patient handling and the use of assistive devices and equipment.
- Regulation and enforcement of a standard to control ergonomic hazards in the healthcare industry
  to prevent back injuries and musculoskeletal disorders is needed. The regulation should include the
  use of engineering controls for patient handling activities. AOHP supports a continued call to
  OSHA and state legislation to develop such standards that are appropriate and reasonable to
  healthcare employers.
- Support of research and evidence based practice is necessary to continue the ongoing development
  of interventions to prevent back injuries and musculoskeletal disorders related to patient handling.



Further study is also recommended to redesign other high-risk tasks to promote safer work environments for nursing staff. Prompt communication of current study findings to the association and partnering organizations is critical in reducing these injuries and disorders.

In summary, AOHP believes that manual patient handling is unsafe for the caregiver and patient. Such handling is also directly responsible for disabling back injuries and musculoskeletal disorders in nurses and other direct patient care providers. Utilizing safe patient handling will be a way to reduce stress for nurses to help them stay in the profession. Safe patient handling can occur with assistive devices, ensuring improved quality patient care and outcomes. The ultimate benefits are afforded to the nurse/caregiver, patient and employer. AOHP welcomes the opportunity to work collaboratively with regulatory agencies and professional associations to promote safe patient handling and reduced healthcare worker injuries.

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Effective Policy Date: 07/04 Revised: 07/06



#### Appendix B

#### Samples

#### Safe Patient Handling Policy

#### I. PURPOSE

To enhance the safety of the work environment for patient care providers and promote a safe and more comfortable hospital stay for patients who require total or partial moving or transfer assistance.

#### II. POLICY

- A. \_\_\_\_\_ Hospital recognizes the critical role that mobility has in a patient's recuperative process including its effect on length of stay. In addition, \_\_\_\_\_ Hospital recognizes the value of every healthcare worker and the potential risk of life-changing consequences related to cumulative effects of improper lifting, shifting, repositioning and transferring of patients. The potential unsafe handling of patients has negative financial consequences for healthcare facilities, patient care providers and patients. Therefore, it is crucial that all healthcare professionals practice techniques to provide safe patient handling and use of body mechanics at all times. The provision of state-of-the-art mechanical patient handling equipment and other approved patient aids are being provided as primary contributions to this effort.
- B. Safe patient handling techniques will be used for all lifts as specified in this policy. During planned patient handling activities staff personnel will not perform patient transfers/complex lifts without mechanical assistive devices except in an emergency.
- C. Patient handling activities include:
  - 1. Repositioning in bed
  - 2. Bed to chair/wheelchair
  - 3. Bed to gurney and return
  - 4. Gurney to treatment table and return
  - 5. Bed to toilet
  - Floor to bed
  - 7. Any other lift where total body movement of the non-ambulatory patient is required.



D. Teams of at least 2 staff members who have been trained may perform these transfers using the designated equipment.

#### III. EQUIPMENT

All staff who participate in patient handling activities are mandated to use a mechanical assistive device for every patient handling activity when patients require full or partial assistance.

Equipment available to the staff may include:

- A. Mechanical vertical lifting devices
- B. Mechanical standing/raising/transferring devices
- C. Air powered lateral transfer mattresses
- D. Full length slide boards
- E. Gait belts
- F. Mechanical weighing devices

Note: Additional information can be included once the type of equipment is known

#### IV. PROCEDURES

- A. Staff will not perform complex lifts or transfers on patients without the use of assistive devices.
- B. Personnel are required to use assistive devices for all total body transfers except in the case of an emergency.
- C. Failure to comply with this policy will result in corrective action, up to and including termination under the facility's "Corrective Action Policy" (list facility policy name and number here)

#### V. RELATED DIRECTIVES

List related facility policies here. Examples might include:
Worker Safety Policy
Injury and Illness Prevention Program
Performance Improvement and Corrective Action
Patient Quality of Care



Date:

#### **Product Evaluation Tool**

Product and Manufacturer:

Job Category:	RN	PCA	Rad Tech E	scort PT	OT Othe	er
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
Comfortable						
Easy to use						
Stable when in use						
Easily cleaned/disinfected	ed					

Comments:

Effective in reducing

Efficient use of time

Willing to use this product

injuries



#### Worker Acknowledgement

Hospital Policy Concerning	vvorker Safety/Injury Prevention	
important for my own safety, as well as that of the pat	owing the Worker Safety/Injury Prevention Policy is tients and my co-workers. Accordingly, I acknowledge the nary process in accordance with Hospital Policy. This Pollocated in each department.	
I also understand and acknowledge that, if I sustain an Policy, disposition of Workers' Compensation benefits administrator has the final discretion.	n injury while violating this Worker Safety/Injury Prevent is are subject to review, whereupon the third party	ion
If I have any questions regarding the Policy, I know th	hat I am to contact the Safety Officer, at	
Employee Signature	 Date	
Witness Signature	 Date	
of Hospital	n Acknowledgement Policy Concerning y/Injury Prevention	
was educated on safe lifting tech Safety/Injury Prevention Policy, and to ask related que	niques, given the opportunity to review the Worker estions.	
	ment of Hospital Policy concerning Worker Safety/Injuryces of violation of Hospital Policy and understands despiral remain unchanged.	
Employee Signature	Date	
Witness Signature	Date	
——————————————————————————————————————	 Date	



#### Potential Types of Equipment by Hospital Department

Department	Task	Safe Patient-Handling Device
Emergency Department	ü Lateral transfers ü Vehicle to wheelchair or stretcher ü Wheelchair to exam table	<ul> <li>ü Lateral transfer devices including friction reducing devices, air powered transfer mattress, lateral transfer device</li> <li>ü Lift that will remove patient from vehicle</li> <li>ü Floor lift</li> <li>ü Non-powered sit-to-stand devices</li> </ul>
Operating Room	ü Lateral transfers     ü Sustained positions with     instrumentation or maintenance of     body part	Lateral transfer devices – air powered transfer mattress, roller bars     Slings to maintain body part suspension
Obstetrics	ü Lateral transfers	Lateral transfer devices including friction reducing devices, air powered transfer mattress, lateral transfer device     Non-powered sit-to-stand devices
Intensive/Critical Care	ü Lateral transfers  ü Bed to chair  ü Repositioning  ü Transporting patients in bed  ü Making an occupied bed	<ul> <li>ü Lateral transfer devices including friction reducing devices, air powered transfer mattress, lateral transfer device</li> <li>ü Motorized bed moving equipment</li> <li>ü Beds that convert to a chair</li> <li>ü Ceiling lifts</li> </ul>
Orthopedics	ü Lateral transfers ü Ambulation ü Bed to chair & back to bed	<ul> <li>Ü Gait belts with handles</li> <li>Ü Sliding boards</li> <li>Ü Lateral transfer devices including friction reducing devices, air powered transfer mattress, lateral transfer device</li> <li>Ü Sit-stand devices with ambulation option</li> </ul>
Radiology	ü Lateral transfers ü Chair to table	Lateral transfer devices including friction reducing devices, air powered transfer mattress, lateral transfer device     Sit-stand device
Rehabilitation	ü Bed to chair transfers ü Toileting ü Showering	<ul> <li>Ü Sit-stand devices</li> <li>Ü Shower chair with wheels</li> <li>Ü Hi-low shower chair with wheels</li> <li>Ü Pivoting devices</li> </ul>
Medical-Surgical	ü Repositioning ü Toileting ü Lateral transfers ü Bed to chair & back ü Ambulation	<ul> <li>ü Lateral transfer devices including friction reducing devices, air powered transfer mattress, lateral transfer device</li> <li>ü Floor lift</li> <li>ü Sit stand device with ambulation option</li> <li>ü Ceiling lift</li> <li>ü Non-powered sit-to-stand devices</li> </ul>
Out-patient	Car to wheelchair/stretcher to treatment/therapy     Back to car	Vertical lift (portable)

Note: Consider weighing option with equipment if beds do not weigh patients.



## Comparison of Facility-wide, Phased-in and Lift Team Implementation Plans For Safe Patient Handling

Facility-wide

Pros	Cons	
Tiered education process works better	May not be organizationally "ready"	
Provides an opportunity to do a good job with internal "social marketing"	Middle management support may be absent	
Allows the organization to quickly incorporate into their recruitment and advertising efforts	Up-front costs	
Allows the organization to quickly take advantage of the reduced injury/reduced injury payback	Intense time of getting everyone trained and ready to go	
Everyone feels included in the initiative		

#### Phased-in

Pros	Cons
Opportunity to work out the "kinks"	Implementation is "choppy"
Spreads upfront costs	Harder to keep focus
Gives more time to build a coalition/support	Less consistent patient handling approaches from unit to unit
Grabs "low-hanging fruit" for injury cost savings if done on	Creates "haves" and "have nots" among staff regarding facility's
worst units first	protection of staff
Takes advantage of enthusiastic units so that success is	If union facility, can create additional issues between management and
quick and the "buzz" is good	labor
May be a way for organization to internally sell the program	More difficult to see return on investment and positive impacts on
without much financial risk	patients, staff, etc.
	Support departments have a difficult time with "exceptions"
	Problems for staff who float from unit to unit including training and use
	Orientation of new hire orientation more difficult if only a few units are
	involved
	Facilities unwilling to change documentation until program is facility-wide
	Areas that are not specifically nursing units may get left until last which
	can be detrimental. Examples include radiology, escort, therapy services,
	security (often called to assist when patients fall to the floor), etc.

#### Lift Team

Cons
Lift Team requires extensive training
May be laid off as "non essential" staff if budgeting gets tight
Difficulty responding promptly to individuals who may have to go to the
bathroom quickly or for a STAT request for testing
May travel with appropriate equipment or may use appropriate lifting
equipment stored on each unit.
Often little education in healthcare and may not recognize situations
where lift/transfer should not be carried out as previously determined
Does not eliminate all patient handling from nursing
Response time varies
Tends to further myth that "big strong guys" are not at risk of injury
Furthers the myth that physical selection will prevent injuries
Requires very careful selection of lift team members for education and
aptitude
May not be available for all shifts

Note: Courtesy Linda Haney, RN, COHN-S, MPH, Diligent Services.