

SAFETY GUIDE FOR PENNSYLVANIA NURSES

FENNER & BOLES, LLC



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At Fenner & Boles, each of the partners has more than 25 years of experience helping injured people and their families. In the Philadelphia area and throughout Pennsylvania, our law firm is well regarded by former clients as well as other attorneys.

If you are being given the run-around about workers' compensation benefits, if you have been denied Social Security Disability or Long Term Disability benefits, or if you have been injured in a car accident or through someone else's negligence, talk to one of our lawyers.

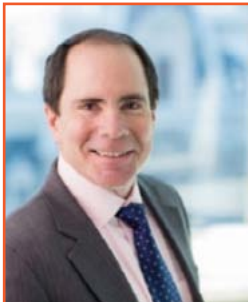
The consultation is free. Find out what we can do for you.



Diane Fenner

Diane Fenner graduated from the University of Pennsylvania Law School. She received her Bachelor of Arts degree with honors from Barnard College, and also has a Ph.D. in psychology from Columbia University. Diane has been practicing law since 1983. After 4 years at the prestigious Philadelphia-based defense firm of Pepper Hamilton, Diane switched to a practice exclusively devoted to the representation of injured individuals. As such, she has practiced in various areas of personal injury, including medical malpractice, automobile accidents, premises liability, and product liability.

At the present time, her Philadelphia practice is devoted primarily to workers' compensation matters, where she represents both injured workers and medical providers who are denied payment for their treatment. In addition, she has a national practice specializing in the representation of people injured as a result of pharmaceutical products. She is the co-author of a chapter in ATLA's Litigating Tort Cases entitled "Drugs and Medical Devices," and was involved extensively in Hormone Therapy (Prempro) litigation. Diane also has the following qualifications: Treasurer, Workers' Compensation Section of the Philadelphia Bar Association, Certified Specialist in Workers' Compensation, and Lecturer, Philadelphia Bar Association.



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Introduction

Many would be surprised to learn that healthcare workers have one of the most dangerous occupations in the United States. The rate of injuries among nurses is 30 times higher than in other industries. Even construction, manufacturing and mining workers do not suffer musculoskeletal disorders at the rate that healthcare workers do.

Nurses and certified nursing assistants perform physically demanding activities under unfavorable and unpredictable conditions. Patients vary in size and weight, cognitive function, physical disability, and ability to cooperate. There are also fluctuations in their medical conditions and some patients can be combative. The heightened risk of injury is associated with low workplace morale, which also causes psychological injuries. Caregivers also risk injury from workplace violence, needle sticks and exposure to hazardous drugs or latex.

In long-term geriatric settings, there are a number of very high-risk patient handling tasks, including repositioning patients in bed and chairs; toileting; and vertical patient transfers. In acute care settings and in rehabilitation/spinal cord injury units, a number of additional tasks place the caregivers at high risk for injury. These include transferring patients on and off stretchers, transporting patients in a bed or stretcher, and repositioning patients in wheelchairs and beds. Heightened risk tasks in operating rooms include lengthy standing, lifting and holding of patient's arms or legs, reaching, patient transfers from the bed to the operating room table or stretcher and lifting/transport of equipment.

Home healthcare aides, nurses, physical, speech, and occupational therapists, social workers, hospice care workers, and therapy aides are examples of home healthcare workers who assist elderly, ill, or disabled persons who live in their own homes. These types of workers face risks that are not typical of healthcare workers who work in a healthcare facility.

The problem is exacerbated by the fact that home healthcare is one of the fastest growing U.S. industries. According to a 2007 study by the Bureau of Labor Statistics, the number of home healthcare workers is expected to grow by 55% between 2006 and 2016.

This brochure describes the occupational risks of healthcare workers and the best methods currently available to reduce or mitigate those risks. We hope this is a welcome addition to the literature on this topic.

Orthopedic Injuries

Nurses

Approximately 52% of all nurses complain of chronic back pain. Over the course of their lives, 80% of nurses suffer serious back pain. Among nursing staff, the most common cause of back pain is lifting, moving, bathing, dressing, and feeding patients. Those who spend the most time performing these activities have the highest rates of back injuries. Cumulative injuries resulting from years of lifting and single injuries from lifting heavy patients are the two most frequent ways nurses suffer back injuries. 38% of all nurses report that at one time they have suffered pain serious enough to miss work. 12% of those who leave the nursing profession report that one of their major considerations was back pain. 20% of all nurses report that they transferred to other positions, units or jobs because of back pain. Studies have demonstrated that awkward lifting, frequent heavy lifting, and unassisted lifting were significant factors in causing permanent disabilities in healthcare workers.

Though National Institute for Occupational Safety and Health (NIOSH) guidelines provide that nurses should lift 35 pounds or less at any given time. However, very few medical facilities comply with that guideline. To the contrary, it is estimated that in an 8 hour shift, the typical nurse lifts a cumulative weight of 1.8 tons.

An analysis of patients admitted to Baptist Hospital in Nashville, TN, demonstrated that almost two thirds of the people admitted to the hospital in the prior two years weighed 200 to 299 lbs., and approximately 2,200 patients weighed between 300 to 499 lbs.

In addition to the factors described above, healthcare institutions have been reducing staff because they have been forced to become more efficient. Reductions in staffing and increases in patient loads are associated with greater rates of injury. Many medical facilities have decreased the number of registered nurses utilized relative to license practical nurses or certified nursing assistants. A Minnesota study showed that when registered nurse positions decreased by 9%, illnesses and injuries among nurses increased by 65%.

At present, the average age of a registered nurse is 47. Many are nearing retirement, and up to 18% leave the profession every year due to back pain. The consequent shortage in nurses will result in more work and hours for registered nurses, and a likely rise in the incidence of occupational injuries.

At the University of Ohio, an investigation was done to measure the spinal load pressure encountered by nurses and certified nursing assistants in handling patients: transferring patients from wheelchair to bed or vice-versa; moving patients from commodes to hospital chairs or vice-versa; and repositioning patients in bed. Despite the use of proper lifting techniques, the methods of transferring and repositioning patients placed nurses in the high risk group for back injuries. According to the investigators, even the safest of the tasks evaluated had significant risk. Among the factors affecting the safety of healthcare workers is the rise in obesity rates in Americans of all ages, the increasing number of elderly who require long term care, and the average age of nurses performing physically demanding jobs at a time when they are prone to injury.

Costs associated with these injuries are quite high. Healthcare providers encounter slowed production, employee turnover, and medical cost reimbursement expenses as a result of these types of injuries. The average cost of a nurse's workers' compensation claim for a back injury was \$10,698.00 in 2009. Nursing personnel have a higher rate of incidents of claims for work related back injuries of any occupation. Nursing aides, attendants, and orderlies have the highest rate of all.

Certified Nursing Assistants (CNAs) and Other Aides

In addition to factors described above, CNAs and other aides face a significantly heightened risk of orthopedic injuries because they transfer patients much more frequently than nurses. A U.S. Department of Labor analysis from 2000 shows that orderlies, attendants, and CNAs had the highest incident rates and the highest number of orthopedic injuries among all U.S. occupations, with over 50% of all CNAs having suffered injuries while helping, moving, or lifting patients. Most of these injuries were to their backs, and most of those injuries occurred in nursing homes. A research report issued by R.T.I. International detailed the dangers associated with working as a CNA. Nearly two thirds reported multiple injuries per year, and nearly 12% reported suffering 10 injuries or more in their careers.

In another study, the National Nursing Home Survey and National Nursing Assistant Survey reported that 60.2% of CNAs surveyed experienced a work related injury in the prior year, 60% had been hurt more than once, and 25% were forced to quit working because of injury.

The breakdown in injuries reported by CNAs is as follows:

- Back injuries 17.5%
- Black eyes and other bruising 16.2%
- Strained or pulled muscles, other than back strain 15.7%
- Human bites 11.5%
- Miscellaneous 7.0%

CNAs in nursing homes face factors that are not as significant in a hospital setting. In addition to the size and weight of patients, nursing home residents can be combative and have a propensity to fall or lose their balance. Transferring patients in small bathrooms and rooms cluttered with medical equipment and furniture makes it more likely that a caregiver will be unable to use good body mechanics. Bed designs and placement often prevent CNAs from bending their knees to assume the proper posture for lifting or repositioning a patient. Many patients cannot be lifted or moved without forward bending, which places the caregiver's spine in a position that is most vulnerable to injury. Even under the best circumstances, the weight of any adult exceeds the lifting capacity given to most caregivers, the vast majority of whom are female.

Most CNAs reported that they have access to lifting devices, and approximately 61% of CNAs reported that they always use lifting devices. However, 34% reported that they sometimes use them, and the remainder said they have never used them.

Moreover, nearly 16% of CNAs believe that they need additional equipment beyond lifting devices, such as electric beds, back belts, walking/gait belts, and bathing aides to make their job safer.

An R.T.I. research report shows some surprising findings, including the fact that organizational culture and CNA job characteristics were the most important predictors of work related injuries. Factors associated with an increased likelihood of suffering a work-related injury in the prior year included receiving low wages, perceiving a lack of respect and reward in their work, and working in a healthcare facility that they believe did not value CNA work. CNAs who rated initial training for working in nursing homes as fair or poor also had a significantly increased risk of suffering a work injury.

The likelihood of suffering injury was also significantly related to age. CNAs who were younger than 30 years old or more than 45 years old were more susceptible to injuries, as were females, whites, and those with more education. Minorities and males suffered fewer injuries of all types. CNAs with lower levels of education also had a lower risk of being injured. Newly hired CNAs were also significantly more likely to suffer back injuries.

The R.T.I. study did not demonstrate that use of assistive equipment significantly affected the odds of being injured, but this point has been contradicted by multiple studies, particularly with respect to back injuries.

The authors of the report speculated that equipment did not bring benefits that were expected because the equipment may be too cumbersome to use properly and may require the help of additional staff who are not available. Furthermore, though this equipment may be widely available, many facilities “still have manual crank beds which require CNAs to bend to position patients.” It is also possible that CNAs do not want to wait until lifts become available or another CNA is available to assist in the lift. The most serious issue demonstrated in the study was inadequate training and preparation. It was very common for CNAs in the study to report that their training was not adequate. One third reported that they were “not prepared” or “somewhat prepared” for work as a result of their initial training.

Perhaps not surprisingly, CNAs feel rushed at work. More than one third of CNAs report that they do not have enough time to assist nursing home residents in performing activities of daily living.

A requirement to work overtime caused an increase of 80% in the likelihood of being injured. This increased risk is probably related to the fact that they are more tired than they ordinarily might be, making them more prone to mistakes. It may also be related to staffing shortages, which may result in the unavailability of other personnel to assist in transferring patients.

Home Healthcare Workers

The principal problem faced by home healthcare workers is that their work environment is not under their control. They therefore must deal with unpredictable hazards, including loaded firearms, violence in the home, and animals. Persons visiting and/or residing in the home of a patient also pose a risk to the healthcare worker. Because they go in and out of multiple dwellings every day, home healthcare workers also have a much greater risk of suffering injury as a result of falls on icy or snow-covered streets, steps, sidewalks, and driveways. They also have an elevated risk of injury or fatality because of the large amount of driving they do.

However, the most common elevated risk among home healthcare workers are injuries suffered while transferring patients into and out of bed or assisting them in walking or standing.

There are a number of reasons why the risk of injury is more complicated among home healthcare workers. Approximately 40% of all home healthcare patients have one or more limitation in their ability to function because they are released after shorter hospital stays and are in need of intensive care until they recover at home. Home healthcare workers must lift patients weighing 90 to 260 pounds, weights that are greater than the safe lifting limits for both men and women. The patients themselves may have functional limitations that interfere with the lift, including an inability to hold themselves up, an inability to cooperate, or obesity. Finally, techniques that are designed to reduce stress on the back transfer loads to other parts of the body, including the neck, shoulders and arms, which become more susceptible to injury.

Home healthcare workers are also more prone to injury related to awkward posture. Patients' rooms may be small or crowded, and healthcare workers sometimes must use awkward postures to perform their healthcare functions. Nearly half of home healthcare workers' time can be spent in positions that are posturally incorrect. These postures include twisted, forward or bent positions, which are often associated with neck, back, and shoulder complaints. The beds in patients' homes are often nonadjustable, preventing the healthcare worker from moving the patient to a position appropriate for a proper lift. Patients' homes usually lack the equipment necessary to help with transfers as well.

Safety Strategies to Avoid Orthopedic Injuries

The National Institute of Occupational Safety and Health (NIOSH) recommends that all employees receive ergonomic training and use ergonomic assistant devices if available. These healthcare devices include slide boards, rollers, slings, slip sheets, belts, and mechanical or electronic hoists. Adjustable beds, raised toilet seats, shower chairs, and grab bars also help to reduce the risk of musculoskeletal injuries to healthcare providers.

Despite considerable evidence that many of the methods used by nurses and other caregivers to lift and carry patients, such as the "hook and toss method," have been found to be unsafe, many risky lifting techniques continued to be used.

Unfortunately, there is conflicting evidence on whether classes teaching body mechanics related to lifting prevents job-related injuries. On the other hand, there is strong evidence that training nurses, CNAs and other staff on proper body mechanics and the use of patient handling equipment reduces the number of workplace injuries.

To reduce the rate or seriousness of work injuries, management must institute administrative procedures. These include:

- Schemes to modify job roles and procedures, such as scheduling more rest breaks, rotation of jobs, or modification of duties or length of shifts;
- Training nurses and CNAs to recognize risky patient handling procedures;
- Patient care assessment protocols; and
- No lift policies.

Safe Work Practice Controls

These types of controls require staff training in body mechanics and other principles that help the caregiver protect their joints. The techniques include training in safe manual patient lifting, no lift policies, and the proper use of lifting equipment. The use of team lifting units, peer safety leaders, and patient handling algorithms has also been shown to improve worker safety.

Safe Manual Caretaking

NIOSH recommends the following with respect to proper body mechanics:

- Instead of reaching while completing bedside tasks, move along the side of the patient's bed;
- Stand as close to the patient without twisting your back while moving the patient, keeping knees bent and feet apart;
- Place one foot in the direction of the move to avoid spinal twisting;
- Using gentle rocking motions to reduce overall exertion;
- Lower the head of the bed to make it easier to pull a patient up;
- Encourage the patient to raise his knees and push if possible;
- Apply anti-embolism stockings to the patient by pushing them on while standing at the foot of the bed, rather than the side of the bed.

No Lift Policies

Though back belts have not been found to be effective in preventing nurses or other caregivers from suffering back injuries, mobile mechanical devices and other lifting equipment have a proven positive impact in reducing the number and seriousness of work injuries. No lift policies impose upon nurses and other caregivers the obligation to use mechanical lifting devices and avoid manual patient handling where feasible. A number of studies demonstrate that no lift policies substantially reduce the incidence of injuries. According to a 1999 NIOSH study, patient transfer injuries were reduced 39% to 79% through the use of lifting equipment. The study also demonstrated reductions in the number of lost and restricted workdays and workers' compensation costs. These policies have become widespread in the healthcare industry, including Pennsylvania, though there are wide variations among other states.

A safe patient lifting program for a nursing home requires mechanical lifting equipment, worker training, and a resident lifting policy. The cost of purchasing portable mechanical lifts is about \$25,000 to \$30,000 in a 100 room facility. In general, one full body lift should be available for every 8-10 non-weight bearing residents and one stand up lift should be provided for every 8-10 partially weight bearing residents. Four separate studies done between 1999 and 2004 showed that the initial investment in lifting equipment and employee training can be recovered in 2-3 years via cost reduction in workers' compensation payments to injured workers. The research also demonstrated that safe resident lifting programs reduced the rate of workers' compensation injuries related to patient-handling by 61%, loss days due to work injuries by 66%, and restricted work days by 38%. Even more impressively, the research demonstrated that with the implementation of a safe lifting program, there was a decrease in "unsafe patient handling practices" and an increase in the job satisfaction of healthcare workers. One can speculate that an indirect benefit from implementing a safe lifting program in a nursing home would be a reduction in lawsuits associated with negligent patient handling, though this issue has not been studied methodically.

No lift policies do not prohibit the transfer of patients manually, if no other method is feasible gives never transfer or reposition residents manually. Lifting can occur only if it does not involve lifting most or all of the weight of the patient. The manual transfer of a patient is based, in part, on the physical and cognitive status of the patient and the nature of their medical conditions. Obviously, patients should be encouraged to help out in their transfer and handling needs if they are capable of doing so. A comprehensive description of the equipment and techniques that should be used in preventing work injuries in nursing homes is described in "Ergonomics for the Prevention of Musculoskeletal Disorders," an OSHA publication that can be linked to here:

https://www.osha.gov/ergonomics/guidelines/nursinghome/final_nh_guidelines.html.

Unfortunately, because of the wide variation in the availability of lifting aids in healthcare institutions, nurses sometimes use aids inappropriately or fail to match the patient-moving task with the appropriate equipment. An institution can resolve this concern by developing a standardized protocol for equipment use. Furthermore, proper and adequately maintained lift equipment must be available in sufficient numbers for healthcare workers to comply with the no-lift policy.

Lift Teams

There is considerable evidence that the use of “patient transfer teams” reduces the costs of compensable work injuries. These teams consist of members who are physically strong and have no history of prior musculoskeletal disorders. Once a team is put together, individual members are trained on the proper use of mechanical lifting techniques and devices. Even the use of lift teams, however, will not address all high-risk activities, including the repositioning of patients, toileting patients, or dressing patients.

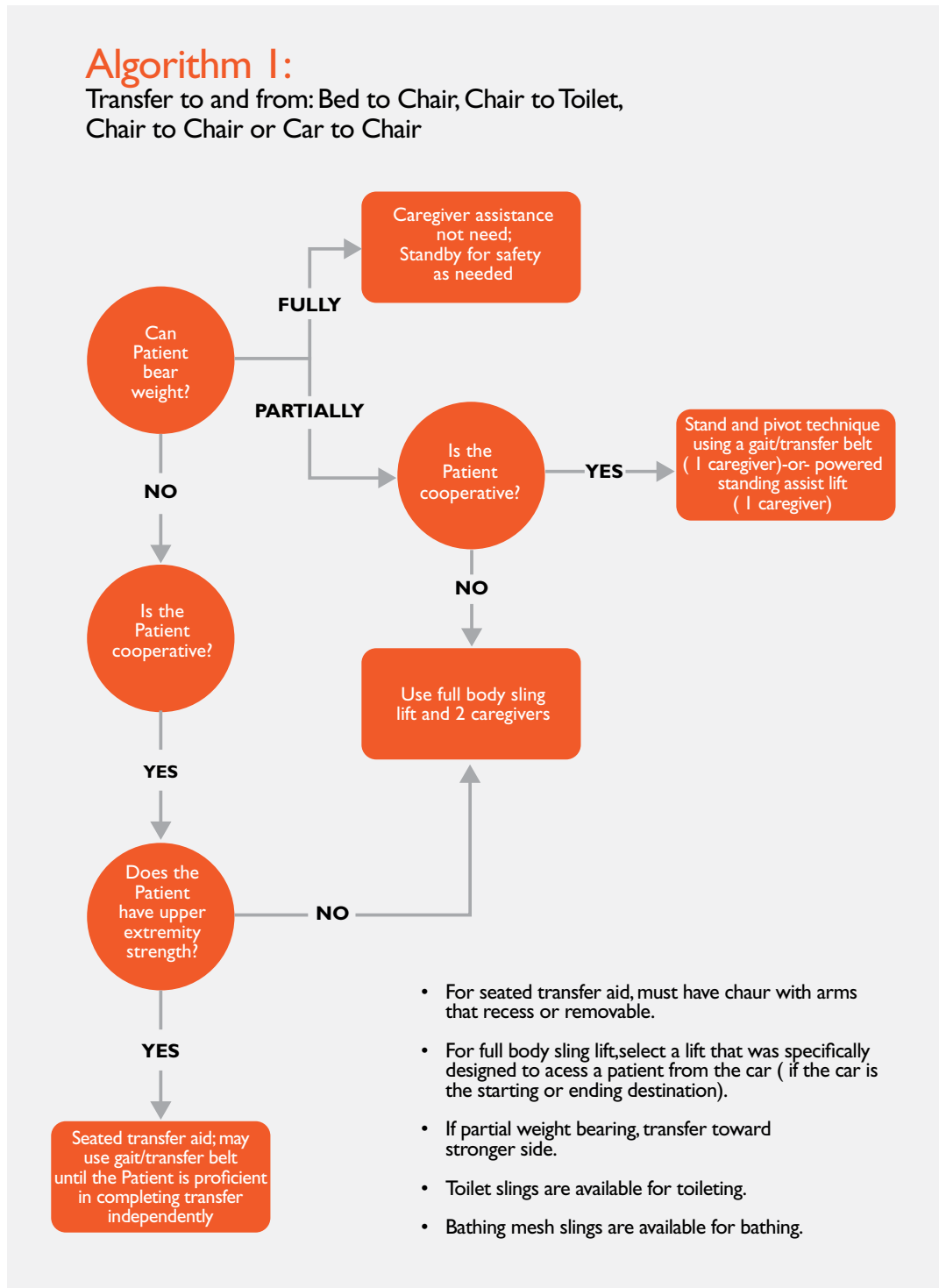
Lift teams have been shown to be very useful in preventing injuries in acute care facilities. When lift teams were made responsible for all total body transfers and the teams used proper mechanical equipment, injury rates, lost time injuries, and duty modifications were significantly reduced.

Peer Safety Leaders

Studies have demonstrated that the use of a peer safety leader who has received specialized training in safety can bring about reductions in work injuries after the leaders return to the unit and share their knowledge and skills with other personnel.

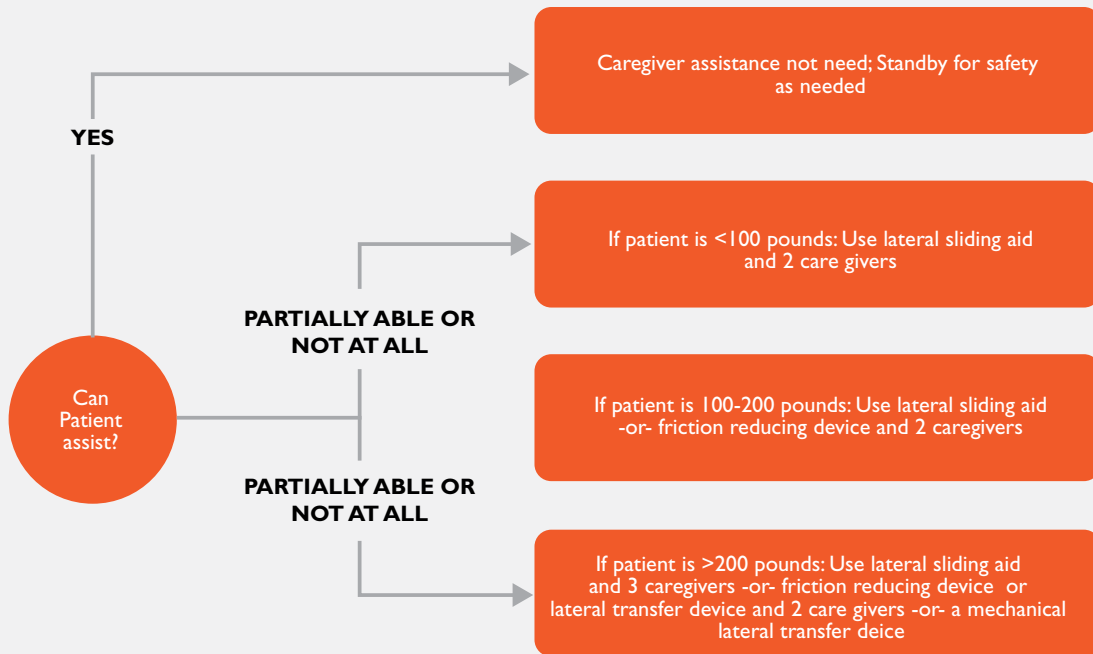
Patient Handling Algorithms

The use of algorithms to direct the use of patient handling is described in a number of articles, including “Patient Care Ergonomics Resource Guide: Safe Patient Handling and Movement,” which was edited by Audrey L. Nelson, PhD, RN. Examples of two algorithms are:



Algorithm 2:

Lateral Transfer to and from: Bed to Stretcher, Trolley



- Surfaces should be even for all lateral patient moves.
- For patients with Stage III or IV pressure ulcers, care must be takeb to avoid shearing force

Special Considerations for Home Healthcare Workers

Though most of the information about the use of assistive devices has been written in connection with inpatient healthcare facilities, much of the information can also apply to home healthcare.

Assistive devices are available for use in home settings. Home healthcare workers should take the initiative in checking with equipment vendors to select proper assistive devices. Though a prescription is often required to get such devices, a patient's insurance will very often provide partial coverage for the costs. The use of such devices decreases the risk of injury to patients because injuries that occur to healthcare workers while transferring them increases their risk of injury.

A number of types of equipment are particularly useful in the home healthcare setting. Hoists supplied with built-in weighing scales eliminate the need to transfer patients to weigh them. Rolling toileting or showering chairs reduce the number of transfers required for bathroom activities. Adjustable beds, grab bars, raised toilets and toilet seats also help in reducing injury to both the healthcare worker and the patient. If patients or families do not want to buy assistive devices, healthcare workers and their employers should inform them about the risks involved in moving patients without a device, since over-exertion by the healthcare worker in the course of an unassisted transfer can potentially harm not only the healthcare worker, but also the patient.

Morale in the Toxic Workplace

Occupational Stress

NIOSH defines occupational stress as “the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker.” There are a number of job stressors that can result in this type of stress, including lack of control, work overload, and misunderstandings concerning the nature or scope of an employee’s job. Poor interpersonal relations, unfair management practices, lack of opportunity for growth or promotion, and a lack of commitment by management to communication and morale are all circumstances that are associated with elevated levels of depression and anxiety in the workplace.

Occupational stress also results from physical injuries, including orthopedic, needle stick, and toxic exposures. Healthcare workers suffer work-related violence and threats of violence at a far greater level than other occupations. Work overload and time pressure are common experiences for those working in healthcare facilities, and these as well as suddenly extended hours and unexpected shift changes also contribute to psychological stress.

There is considerable evidence that nurses, orderlies, and CNAs are much more efficient if they work in a setting in which their work is respected by colleagues and administrators. Caregivers in such a setting are less likely to suffer lost-time claims, and the claims costs submitted are less expensive. The absence of workplace customs that promote self-esteem drains caregivers of motivation. The costs of staff shortages, lost work hours, turnover, litigation, and the inability to attract new staff are costs that are ordinarily not considered when examining morale in the workplace.

The problems associated with low morale are exacerbated when a caregiver suffers a work-related injury and is placed on modified duty. Among nurses, suffering back injuries is considered a normal part of the job, and many have an unsympathetic attitude towards those who pursue claims. Isolation, verbal abuse, and other disrespectful behavior are often encountered by injured caregivers who return to modified duty.

This problem is particularly bad in nursing care facilities, where morale is lower than in most settings. Sometimes management pursues a deliberate strategy to isolate, humiliate, and harass injured employees into resigning. This is done to try to minimize the claims costs and send a message to other staff members regarding the consequences that occur if they pursue workers’ compensation claims.

A 2000 study demonstrated that poor team spirit, high staff turnover, impaired performance, low productivity, sickness absence, and increased litigation are common consequences of this type of behavior. A 2008 study demonstrated that bullying also compromises safety in the workplace

For the organization, there are considerable financial costs associated with this behavior. Hiring, training, overtime, impaired productivity, and recruiting costs are common results of this behavior. Bullying often results in a decreased patient satisfaction, as well as the payment of legal fees due to workers’ compensation or harassment charges. Due to the impairment of productivity that results from a toxic work environment, nurses may receive no raises, or units may be short staffed, decreasing quality care and exacerbating the underlying problem.

Bullying

Unfortunately, in many organizations caregivers are treated with disrespect. They feel psychologically vulnerable, that their work is not appreciated, and that they are not provided the resources needed to complete their work tasks. In the healthcare industry, there is significant tolerance of disrespectful conduct by physicians and nurses as well. A common expression is that “nurses eat their young,” which describes the practice of treating young or new personnel disrespectfully. Emotional abuse, bullying, dismissive behavior, put downs, and humor at the expense of the colleagues are common occurrences in healthcare settings. Harmful behaviors include verbal affronts, undermining activities, withholding information, in fighting, sabotaging, scapegoating, nonverbal innuendo, and backstabbing. Physicians can be particularly difficult in dealing with nurses, questioning their judgment or expressing words that suggest that a nurse “does not know what he or she is doing.” Senior management rarely sees this behavior, and it is even more rare that this behavior is reported.

A number of common factors underlie the phenomena of bullying in the workplace, including the covert acceptance of bullying, a style of management in which senior management is feared rather than respected, and high workloads resulting in displaced aggression.

According to a 2009 study, over 27% of nurses reported that they had experienced workplace bullying in the previous six months, mostly by charge nurses, managers, and directors. The study also demonstrated that bullying behavior was strongly linked to both job turnover and the desire to leave nursing as a field.

Examples of Healthcare Bullying Among Nurses

Where power disparities exist, bullies use a number of techniques to control the behavior of coworkers. Shift/weekend charge positions are used to control staff assignments and breaks. Nurses or management place nurses under pressure to meet impossible deadlines. Nurses control behavior by reporting other personnel to supervisors for their perceived inability to work efficiently. Other nurses withhold knowledge of procedures to new coworkers, demand that coworkers perform their assigned duties, refuse to provide guidance to new staff, give public reminders of other nurses’ incomplete or missed work, post documentation errors on bulletin boards, write abusive letters or notes, use hand gestures to ward off conversation, and roll their eyes in disgust. Impatience, insults, sarcasm, rudeness, gossiping, mockery, and even silent treatment are forms of behavior that denigrate a nurse’s professional dignity.

There are a number of consequences of this type of occupational stress, including irritability, depression, job dissatisfaction, absenteeism, sleep problems, and physical problems such as upset stomach, high blood pressure, or headaches. Some events also can result in post-traumatic stress disorder. While every individual varies in their ability to cope with these types of stresses, the conditions in the work place play a major role in the development of these types of health problems.

Methods to Reduce Stress

Though it is impossible to eliminate stress completely, particularly since individuals suffer from non-work-related stress, there are a number of techniques that management can use to reduce stress.

Workplace Redesign and Organizational Changes

Perhaps the most effective way to improve morale in the workplace is to redesign jobs or make organizational changes that are designed to eliminate or reduce occupational stress. Workloads should be assigned in accordance with the worker's resources and capabilities. Worker's roles and responsibilities should be defined so that the caregiver can understand the tasks that they are expected to perform. Caregivers should participate in decisions that affect their jobs. Improved communication, reduced uncertainty about career development, and social interaction among workers and management all contribute to a safer work environment.

Healthcare facilities commonly use multidisciplinary healthcare teams, team processes, and other methods to accomplish this goal. The team approach emphasizes clear delineation of tasks and roles within a department and encourages participation by caregivers in decisions and actions affecting their jobs. Healthcare teams composed of doctors, nurses, managers, pharmacists, psychologists or other have become common, particularly in long-term facilities. These teams allow services to be delivered more efficiently, save time, promote innovation and encourage the sharing of information. Other methods to accomplish these tasks include analysis of risks in the work place, the development of techniques to intervene when problems arise, and education of staff. It is particularly important to provide support to a caregiver when a patient error occurs. If a caregiver is demoralized following an adverse event, he or she may be hampered from participating fully in responding to the crisis. They may have difficulty communicating compassionately with the patient, be unable to prevent further injury, and be unable to investigate the cause.

All of the best medical facilities in the country have adopted these approaches to improve morale in the workplace. Not surprisingly, patients report high levels of satisfaction with the treatment they receive in these facilities which, in part, is a result of better quality care being delivered to them in the most efficient manner.

Control of Bullying

The first thing organizations should do to handle bullying is to look at the workload of healthcare professionals. Bullying is sometimes displaced aggression or stress because of a high workload.

At a basic level, employers must institute a "zero tolerance" policy for harassment. Managers must lead by example, setting the tone for behavior that is essential to avoid a toxic workplace and create a harmonious environment. More open lines of communication between management and nurses, including the possibility of providing a hotline, may help. Competency standards for nurses and nursing supervisors must include training to manage bullying. Mechanisms for resolution of conflicts should be in place. A reporting system that includes reassurances of protection against retaliation should be instituted. The workplace should have a management protocol to deal with episodes of bullying. Finally, nurses need to be educated on bullying and its negative impact in the workplace.

Individuals must overcome the tacit acceptance of bullying in the workplace. Bullied workers are often told that they are not being bullied, but victims ordinarily are aware that this claim is not true.

If a complaint program that offers confidentiality is available in the workplace, nurses should take advantage of it. Victims need to seek behavioral assistance when needed. Individuals need to educate themselves on the effects of bullying and recognize the signs and symptoms of distress resulting from bullying. Nurses should be aware of their rights, and should also be aware of the existence of organizations that can assist them in responding to a pattern of workplace bullying. All nurses should know workplace policies and procedures relating to this type of behavior. Victims should record incidents of bullying, including the date and time of the occurrence, along with other relevant information, including the identity of witnesses. Nurses and other healthcare professionals must be aware that in fact it is possible that the organization will do nothing to stop the bullying, and that they need to protect their own personal interests. If all avenues to address the problem have ended unsuccessfully, nurses should seek legal assistance.

Coworkers can be of great assistance in dealing with harassment. Victims are often unable to muster the courage necessary to report this behavior. Where coworkers witness the behavior, they should take advantage of confidential complaint procedures and should seek assistance of colleagues in confronting bullies about their behavior.

Violence in the Workplace

Data from the Bureau of Labor Statistics demonstrates that nearly 50% of all injuries from violent acts of occupational assaults occurred in the social service and healthcare professions. Most occurred in nursing and personal care facilities, residential care service facilities, and hospitals.

In 2007, the Bureau estimated that workers in the healthcare and social assistance industry sector suffered 9,950 assaults resulting in lost time injuries. This figure represented 59% of the estimated private sector incidents for injuries this severe. In 2007, the rate of assault resulting in time off from work was 8.3 per 10,000 full-time workers. This rate is approximately 4.6 times greater than the rate of lost time injuries from assaults in the private sector.

A follow-up study demonstrated that more than 40% of a randomized group of healthcare workers suffered violence working in behavioral or psychiatric units, 20% in geriatric units, and nearly 10% while working in emergency departments. Perpetrators were mostly patients, visitors, or the families of patients.

The rate of workplace violence for healthcare and social service workers is increased due to a number of factors, including the following:

- The presence of money or drugs at clinics, hospitals or pharmacies;
- Handgun or other weapon possession by patients, friends, or their families;
- The increasing practice of releasing acute and chronically ill patients from hospitals without adequate follow-up care;

- The heightening rate that police use hospitals to hold and care for violent and acutely disturbed individuals;
- The lack of security in clinics or hospitals leading to unrestricted movement of individuals in the facilities;
- Long waits in emergency or clinic areas that result in violence due to the anger of patients in not receiving care more quickly;
- Growth in the number of gang members, trauma patients, distraught family members and drug /alcohol abusers in medical facilities;
- Inadequate levels of staffing when there is increased amounts of work in the facility, such as visiting times, during meal times, and during patient transport;
- The isolation of clients with healthcare workers while being examined or treated;
- The isolation of healthcare workers in remote locations where they are unable to obtain prompt assistance;
- Inadequate lighting in parking areas; and
- Inadequate training of staff to recognize and manage violent behavior.

Since 1989, OSHA has provided guidelines for the prevention or reduction in workplace violence among healthcare and social service workers. Under these guidelines, employers have the general burden to ensure that the workplace is free of violence or of hazards likely to cause death or serious physical harm. OSHA recommends some common sense elements for a violence prevention program, including the commitment by management and employees in the process; the analysis of hazards of the workplace; the institution of practices to prevent and control hazards; the education and training of staff in violence prevention; and record-keeping and regular evaluations of the facilities' violence prevention program.

The primary commitment to this program must be by management in creating an environment that limits workplace violence. It is essential to protect employees who report violent incidents and ensure that they are not subject to reprisals for doing so. Management must also encourage employees to report these incidents as quickly as possible, and ask the employees for ways to reduce or eliminate risks. A comprehensive plan for maintaining security in the workplace is essential in preventing violence. Responsibility and authority to oversee the program must be given to individuals who have sufficient training and skills to handle the responsibility. Until the program is instituted fully, management must set up regular briefings to address safety issues.

The first step in instituting a program is the analysis of the workplace to determine whether there are any existing or potential workplace violence hazards. OSHA recommends the use of patient assault teams, threat assessment teams, or other task forces to determine the level of workplace violence hazards and to determine the course that should be taken to address the problems identified by these teams. OSHA also recommends that records be kept to analyze incidents and monitor violence in the workplace. A proper violence prevention program may require workplace adaptation through engineering controls or construction. These types of controls include metal detectors, video recorders, alarm systems, safe rooms, enclosed nurse stations, deep service counters, and reception areas protected by bulletproof glass.

Additionally, OSHA recommends work practice controls including the practice of stating clearly to patients, employees, and clients that violence is not tolerated, the establishment of liaisons with police

and prosecutors, the requirement that employees report workplace violence or threats, and the creation of trained response teams to attend to violent incidents. A successful program also must include a system for providing counseling to victims of violence, the debriefing of these victims, and the creation of programs to assist the victims.

All employees need to understand that violence should be expected in a healthcare setting, but can be avoided or mitigated through appropriate preparation. Employees should also be trained to limit physical interventions in violent incidents unless emergency response teams or security personnel are present. Finally, any successful program requires accurate record keeping of violent incidents and the evaluation of information obtained as a result of this process. OSHA has even prepared suggested forms for use in keeping track of violent incidents in the healthcare workplace.

Healthcare Workers and Latex Allergies

Because healthcare workers are exposed to latex at a much greater rate than the general population, reactions such as skin rashes, hives, nasal, eye or sinus symptoms, asthma, and even shock can occur. This type of allergy is acquired, not inborn, and results from repeated exposure to latex products. Thus, the only solution to the problem is to limit exposure to latex.

Unfortunately, in a healthcare setting, there are many products that contain latex, including catheters, bandages, stomach or intestinal tubes, anesthesia masks, plastic bandages, ejection ports, surgical masks, and, of course gloves. There are, of course, household or office objects that may contain latex, including racket handles, rubber bands, shoe soles, erasers, and carpeting. Nonetheless, healthcare workers are exposed to latex at a far greater rate than the general public.

The most common adverse reaction resulting from using latex gloves is irritant contact dermatitis. The symptoms consist of irritated, itchy, and dry skin, ordinarily the hands. This reaction is not an allergy, but the result of repeated exposure to an irritant. There are a number of causes for this skin condition, including putting on and taking off latex gloves, repeated hand washing or drying, using cleaners and sanitizers, or repeated contact with powders added to latex gloves. Sometimes a skin rash is the first sign of a more serious latex allergy.

A latex allergy is a much more serious condition. An allergy may develop as a result of low exposures if the person is very sensitive. Most reactions occur within minutes of exposure, but symptoms may be delayed for hours. Though a latex allergy may result in a mild reaction such as itching of the skin, there are more serious reactions, including sneezing, runny nose, scratchy throat, itchy eyes, and asthma. In rare circumstances, shock may occur. Any healthcare employee who develops a more serious allergic reaction to latex exposure is in need of immediate medical assistance. Though there are skin and blood tests available, these tests occasionally are inaccurate and fail to confirm that a patient with a latex allergy actually has the allergy. Other times, there may be false positives in which someone who is not allergic to allergy has test results that are positive for the allergy.

Measures to Prevent Latex Exposure

Fortunately, there are a number of procedures available to minimize worker exposure to latex. There are non latex gloves that may be used whenever there is little contact with materials that are infectious. If the worker may be exposed to infectious materials, there are non latex gloves that meet the required standards for blood-borne passage and resistance. When latex gloves are used, employers can provide powder-free and reduced protein gloves. Other steps include the training of supervisors and staff on latex allergy and the institution of a system in which workers with early symptoms are evaluated promptly. When a worker is diagnosed with a latex allergy, the latex exposure prevention program in the institution needs to be re evaluated. Areas that are contaminated with a latex dust must be frequently cleaned, probably with a vacuum that contains a HEPA (high-efficiency particulate air) filter.

Additionally, healthcare workers should avoid oil-based lotions or creams whenever they use latex gloves. These creams, unfortunately, may cause the gloves to deteriorate making irritant dermatitis or allergic reactions more likely. Healthcare workers should wash their hands with a mild soap and dry their hands completely after using latex gloves.

Caregivers must be able to recognize the symptoms of a latex allergy, including the more serious symptoms. If a worker is diagnosed with a latex allergy, they are going to be much more cognizant of the presence of latex in the work and home environments. For example, before receiving any type of shot, including flu shots, the worker must make sure that the person administering it is using a latex-free vial stopper. The worker should wear a medical alert bracelet. Before receiving any type of surgery or medical procedure, individuals with latex allergies should consult with the specialist to see if there are any modifications that must be done in the area where the procedure is to be performed.

Needle-Stick Injuries and Blood-Borne Pathogen Exposure

Healthcare workers face a serious hazard of exposure to infected blood as a result of exposure to needle-stick injuries and other sharp objects, including scalpels and broken glass containers. These injuries can expose healthcare workers to various pathogens, including the Hepatitis B and C viruses, and the HIV virus, all of which pose a very serious risk of illness and even death. Of these viruses, immunization is available only for the Hepatitis B illness.

A variety of studies estimate that between 385,000 and 800,000 injuries occur every year as a result of needle stick or other injuries resulting from sharp objects. Half of these injuries are not reported. Reasons for not reporting the injuries include a desire not to participate in the post-injury process due to anxiety and time constraints; anxiety that they will be blamed for the injury by the employer; a belief by the provider that the patient does not have a risk of infection; and fear that these incidents may have a negative impact on existing or future employment prospects.

Needle-stick injuries result from a number of activities, including handling needles that have to be taken apart after use, disposing needles attached to tubing, recapping needles, disposing of needles attached to tubing, and transferring body fluid between containers through the use of needles or glass equipment. These risks are exacerbated by inadequate staffing, productivity pressures, and a lack of workstations for procedures in which sharp instruments may be used.

Additional factors pose heightened risk for home healthcare workers. Patients or their families may not dispose of sharp instruments appropriately. Contaminated instruments can be found on any surface in the home or in wastebaskets. Studies have demonstrated that lancets and syringes are frequently left uncovered in the home. Without access to a standard disposal container, home healthcare workers often use anything that is available, including coffee cans or other containers. Additionally, pets, children, guests, and family members may distract the healthcare worker, heightening the risk of injury. Caregivers may also be exposed to blood-borne pathogens as a result of caring for wounds, or dealing with the sudden bleeding by the patient.

OSHA Blood-Borne Pathogen Standards

Fortunately, OSHA has instituted standards for the protection of healthcare workers against these types of occupational exposures. Over the course of time, safer medical devices that reduce or eliminate the potential for injury have been developed, particularly with respect to needle sticks.

Among the requirements of the OSHA standards are the following:

- Employers must have work practices and engineering controls designed to minimize worker exposure to these risks as well as training in these controls.
- Employers must create an exposure-control plan that minimizes exposure to blood-borne pathogens and must review the plan annually.
- OSHA requires that non-managerial employees be consulted concerning work practices and engineering controls appropriate for reducing the risk of injury.
- Certain activities, including, for example, recapping or removing a contaminated needle from a syringe, are prohibited.
- Free Hepatitis B vaccinations.
- Medical evaluations after exposures, with treatment if appropriate.
- Logs of all injuries that result from sharp instruments.

How to Avoid Injuries From Needle Sticks and Other Sharp Instruments

Other common sense steps include the elimination of the use of needles whenever safe and effective alternatives are available, the use of needle devices with safety features, the training of workers in the safe use of needles and sharp instruments, and training provided to caregivers for the patient such as family members.

If, despite all precautions, a healthcare worker is exposed to the blood of a patient, needle sticks and cuts need to be washed immediately with soap and water. The employee should also flush any splashes to the nose, mouth or skin with water, and irrigate eyes with clean-water saline or sterile irrigants. These incidents should always be reported, and healthcare workers should immediately seek medical treatment.

Exposure To Hazardous Drugs By Healthcare Workers

Healthcare workers are exposed to contamination by hazardous drugs on work surfaces, in the air or on clothing, medical equipment, work surfaces, and patient urine or feces. Antiviral drugs, hormones, bio-engineered drugs, and cancer chemotherapy drugs pose health risks to caregivers. The severity of injuries suffered as a result of exposure to hazardous drugs varies widely. Skin rashes are common, but some caregivers suffer chronic events, including reproductive mishaps and even cancer.

Some examples of potential drug exposures include the generation of aerosols during the administration of drugs, handling body fluids or body fluid contaminated clothing, linen, or dressings, and contacting concentrations of drugs present on work surfaces, floors, bags, bottles, cassettes, syringes, and drug vial exteriors. During the period after administration of drugs, workers face risks associated with handling unused hazardous drugs or contaminated waste, cleaning the drug preparation or clinical areas, transporting hazardous waste, and removing and disposing of protective equipment after handling hazardous drugs or waste.

Unfortunately, compliance with guidelines for handling hazardous drugs has been sporadic. Furthermore, even after appropriate precautions have been taken, tests demonstrate the presence of hazardous drugs in the urine of caregivers who prepared or administered the drugs. Patient care areas also have had documented concentrations of contamination even in a facility that adheres to a strict protocol for protecting caregivers against exposure.

Unfortunately, the number of drugs that pose a potential health hazard to caregivers is expanding rapidly. Thus, it is more important than ever to ensure that the workplace is safe for the preparation and administration of all drugs.

Standards and Recommendations

Though there is no NIOSH-recommended exposure limits, OSHA has established threshold limit of values for hazardous drugs in general. OSHA has also prepared a technical manual describing the guidelines for exposure to hazardous drugs. Additionally, the Environmental Protection Agency has established regulations on the management of hazardous waste, including certain hazardous drugs.

To alleviate the hazards posed by drug exposure, employers must assess the existing hazards in the workplace. This includes an evaluation of the workplace to assess hazards before anyone begins to work with such drugs. Employers must also regularly review their current inventory of hazardous drugs, practices, and equipment, interviewing affected workers as part of this review. Training reviews with caregivers who have potential exposures to hazardous drugs must occur.

Obviously, programs to handle drugs safely need to be established, as well as procedures for cleaning up spills and using equipment properly. The workplace also must have procedures for using and maintaining equipment that is designed to reduce exposure, such as ventilated cabinets.

Any safe handling program for hazardous drugs must include careful medical surveillance. Anyone who handles hazardous drugs must undergo regular medical evaluation to determine whether there are any signs that they are suffering adverse health effects.

For more information concerning the steps that can be taken by healthcare workers and employers to prevent occupational exposure to hazardous drugs, see the NIOSH alert: Preventing Occupational Exposures to Antineoplastic and Other Hazardous Drugs in Healthcare Settings, NIOSH Publication No. 2004-165.

Conclusion

We hope this guide has been of some assistance to healthcare workers seeking to reduce the incidents and severity of work place injuries. Though the majority of the recommendations in this guide have already been instituted in your facility, many probably have not. If weaknesses in the injury prevention program in your facility exist, time and resources should be devoted to address those issues.

Thanks for reading our booklet.

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