

Extended-Care Facilities Safety Manual



Ohio

Bureau of Workers'
Compensation

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Introduction

BWC's Division of Safety & Hygiene developed this safety and health publication for extended-care facilities. While this publication is not all-inclusive, it attempts to highlight many common causes of injuries for extended-care facility employees.

The division identified extended-care facilities as one of the most hazardous industries in Ohio. This manual identifies and explains hazardous safety and health workplace concerns, summarizes effective accident-prevention principles and techniques, provides management and employees with information to help them work safely, and enables safety teams to meet their goals and obligations.

BWC urges employers to consider this manual's content carefully and apply it thoroughly. Each chapter addresses a different area of concern and practical accident-prevention measures.

BWC realizes organizations within the extended-care facility industry have individual needs and that not all the information presented here is pertinent to every employer. However, this manual can serve as a good starting point and a convenient reference for managing safety issues

within your facility. This manual is not a compliance document.

Safety isn't the only thing you can do to reduce this cost. You can also lower your premiums by proactively managing your workers' compensation claims. This includes investigation, early reporting of injuries and working with your employer services specialist and claims service specialist.

BWC's goal is to help companies eliminate incidents and injuries while reducing workers' compensation expenses. The combination of proactive safety strategies outlined in this manual and hands-on claims management will help you reduce injuries and lower your workers' compensation costs.

This manual can also provide your company's safety team with information to meet its goals and obligations. It contains information on incident prevention together with a complete explanation of use and benefits and methods of application.

To learn more about BWC's other safety services, visit ohiobwc.com, or call 1-800-OHIOBWC, and request a safety services catalog.

Inside the extended-care facility

A wide range of care-giving capabilities characterizes extended-care facilities. Some facilities are small, cottage-like residential board and care group homes offering minimal personal care services. Others are major institutions providing specialized nursing care, extensive rehabilitation therapies, activities programs and social services for hundreds of residents. Extended-care facilities include nursing and convalescent homes, skilled nursing and intermediate-care facilities, and infirmaries in homes for the aged.

Caregiving characteristics

Many hospitals are shortening the length of a hospital stay because of numerous reasons, and because Medicare limits the number of hospital days it will cover. Therefore, more elderly hospital patients who are too sick to go home, but cannot afford to stay in a hospital, are entering extended-care facilities with subacute-care abilities.

Extended-care facility industry studies estimate 10 percent to 20 percent of acute-care hospital patients can be moved out of hospitals and into extended-care facilities. Here, caregivers can provide subacute care by offering some of the care found in hospitals at a lower cost. The kind and amount of work caregivers do in extended-care facilities are changing due to:

- Sicker residents;
- More dependent residents;
- More resident lifting and transferring;
- More risk of a sprain or strain injury.

Future nursing facilities will change in number and sophistication. Facilities increasingly are equipped with improved diagnostic, treatment and rehabilitation capabilities.

The extended-care facility industry

Extended-care facilities are the fastest-growing segment of the health-care industry. More than 17,000 nursing facilities exist in the United States.

Unlike hospitals, which are staffed mostly by registered nurses, certified nurse aides (CNAs) provide most of the care in extended-care facilities. CNAs make up 42 percent of the extended-care facility work force.

The problems

The extended-care facility industry holds the distinction of being the most dangerous growth industry in the United States. Of the 20 fastest growing industries, extended-care facilities have the highest illness and injury rate.

U.S. Bureau of Labor Statistics (BLS) illness and injury rates for the extended-care facility industry are now higher than any rate reported for the construction industry, an industry in which hazardous work sites are well documented. Every year, out of every 100 extended-care facility workers:

- 18 are injured;
- Six need to spend time away from work to recover;
- Four are hurt so badly they need a week or more to recover.

Data also shows that 50 percent of injured extended-care facility workers must take days off work or work light duty to recover. Of those taking days off work, more than a quarter required more than two weeks to recover. Less than a third can return within one or two days.

Studies find only one-third of nursing personnel suffering back pain on the job file an incident report. Most workers apparently use their sick time or are afraid they will lose their jobs if they report an injury.

Considering the immense injury rate and large number of workers in the extended-care facility industry, injuries to extended-care facility workers are a significant public health problem.

A brief history

BLS data for 2005 indicate the injury and illness rate for nursing and residential care facilities (North American Industry Classification System 623) is 9.1 injuries or illnesses per 100 full-time workers. Although this is lower than the 2003 incidence rate of 10.1 and the 2004 rate of 9.7, it is higher than the 2005 incidence rate for hospitals or any other health-care services. It is also almost twice the 2005 incidence rate of 4.6 for all employers in private industry.

From 2003 to 2005, nursing and residential care facilities was the industry with the second highest number of injuries and illnesses (the hospital industry was first). In 2005, there were 209,100 nonfatal injuries and illnesses.

Upper extremity and low back pain disorders

According to the BLS, nearly 80 percent of all back and shoulder injuries in extended-care facilities are due to handling and transferring residents. Back and shoulder injuries account for 54 percent of all injuries and illnesses among nursing assistants, and the number has increased during the last decade.

Statistics

In 2005, there were 66,620 injuries and illnesses that involved days away from work in nursing and residential-care facilities. Of these, 55 percent were due to strains and sprains. The back was affected in 34 percent of cases. In 42 percent of the injuries and illnesses, the health-care patient was the source of the injury or illness. Overexertion leads to the injury or illness 42 percent of the time. Almost 20 percent of injuries were due to falls on the same level.

Upper extremity disorders

Risk factors of upper extremity cumulative trauma disorders (CTDs) occur at varying levels for different jobs and tasks. Being aware of at-risk situations may help nursing staff prevent injuries.

Caregiver risk factors

Resident caregiving associated with potential upper-body injuries include:

- Repositioning residents;
- Moving residents;
- Taking blood pressure;
- Drawing blood;
- Opening packaging;
- Bandaging;
- Lab sample preparation.

Conditions present in the workplace that increase the likelihood of injury, such as repetition, awkward posture, high forces and duration, are called occupational risk factors. Usually, the greater the exposure is to a single risk factor or combination of factors, the greater the risk of a CTD. Reducing the levels of risk factors will reduce the probability of CTDs.

Section 6.5 of the American National Standards Institute's (ANSI's) Z-365 describes how to quantify the physical risk factors: "Physical stresses affecting the CTD risk factors ... are quantified using characteristic properties of physical measurements of joint angles, forces, vibration and temperature. These properties consist of magnitude, repetition and duration. Magnitude indicates the size or extent of the measurement; repetition rate or frequency quantifies repetitiveness; duration measures the time that the stress is sustained."

Low-back pain disorders

Back strains and sprains are the most frequent injuries among resident caregivers. Nursing personnel have both high prevalence rates of back pain and high incidence rates of workers' compensation claims for back injuries.

One study found that nurses' aides had the highest incidence of disabling back injuries in the United States. Moreover, the incidence rate for nurses and nurses' aides were higher than the more traditional physically demanding occupations of construction and garbage collection.

Cause of back strain

Problem tasks involve overexertion from lifting, pulling, pushing, holding, carrying and turning motions. Compounding the problem, the work is often done while twisting and turning. Additionally, support personnel may suffer back injuries while pushing or pulling dietary or laundry carts, or manually carrying materials, such as food, laundry or equipment.

Patient transfers are associated with most low-back injuries suffered by nursing aides. The culprits are usually manual lifting or inappropriate transfer techniques. The four most problematic tasks are transferring residents from:

- Restroom to wheelchair;
- Wheelchair to restroom;
- Chair to bed;
- Bed to chair.

Studies reveal nurses exposed to frequent patient lifting are more likely to report a back injury than those who infrequently lift patients. One study shows nurses required to lift patients are four times more likely to sustain a low-back injury than nurses who do not lift patients. The problem of back pain and injury appears to be more prevalent in extended-care facilities than in hospitals.

Secondary low-back trauma

The worst low-back problems typically occur when workers return to jobs inappropriate for their capabilities. Following an initial low-back injury, early return to work is effective when the employee's abilities are modified and matched to appropriate jobs. Appropriate return to work reduces the likelihood of a secondary injury or exacerbating of the initial injury. Secondary injuries are more severe and costly than the initial injury and often result in a permanent disability.

Costs

One of the most costly occupational-related health problems facing industry today is back pain. During the last five years, claims for back injuries in Ohio accounted for approximately 25 percent of all workers' compensation benefits paid. This amounts to \$475 to \$520 million per year in medical and indemnity costs. Back injury claims also accounted for 25 percent to 30 percent of total incurred costs (actual benefits paid plus reserves for future payments) from 2002 to 2004.

Back injury claims can cost as much as \$90,000 per occurrence. A typical back injury claim averages \$15,000 to \$21,000. These costs are the reason extended-care facilities can pay almost five times more in workers' compensation insurance premiums than hospitals.

Solutions

Clearly, the need exists for better prevention methods of occupational back injuries. Solutions include:

- Reduce the objects' weight to be lifted;
- Obtain assistance;
- Use mechanical lifting devices and training with regular follow-up;
- Use mechanical assistive devices for resident handling tasks to reduce manual resident lifting;
- Use manual assistive devices for manual resident handling tasks;
- Provide training programs in resident lifting, both manual and mechanical;
- Implement practical ideas of nursing staff from personal experiences.

Engineering solutions for control of MSDs

Certain engineering changes also may prevent and reduce injuries. For instance, mechanical assists and powered equipment may eliminate or reduce certain resident-handling transfers. Reducing the number of transfers with physical stress during transfers reduces back injuries.

Extended-care facility management should look beyond power lifts' initial cost to consider long-term benefits of purchasing assistive equipment. Considerations include: lost workdays, workers' compensation costs, employee turnover, staff morale and residents' safety and dignity.

Mechanical lifting devices can reduce injuries only if they are faithfully used. Often time constraints or space limitations prevent caregivers from relying on lifts. Studies show workers rate the stress of using lifts as more demanding than not using them. Training programs help counter stress and are essential to ensure transfers are safely and effectively performed.

No set guidelines define the type or number of lifts a facility needs to ensure proper and safe transferring. To determine appropriate equipment needs, management should assess its residents and their dependency levels.

By providing in-services, literature and training videos, many lift manufacturers help extended-care facilities monitor safety issues and develop a complete safety-management program.

Certainly the caregiver's strength and knowledge of lifting techniques influence the residents' transfer. However, facility design, arrangement and accessibility, and equipment are additional facility factors to consider.

If extended-care facility management teaches and enforces safe work practices, they can use the money saved in workers' compensation payments to invest in technology that make lifting and transferring patients less hazardous. One year's worth of workers' compensation payments for a typical extended-care facility, for instance, will pay for 10 to 15 mechanical devices allowing staff to lift and transfer patients more safely.

Concerns about change

When workers are asked to change their established routines or use new equipment, they may be reluctant. Refusal to adopt a work procedure may reflect an unanticipated problem with the recommendation or lack of involvement in choosing the solution.

For instance, nursing staff is used to lifting patients. In one study, the nurse's natural reaction was to lift the resident when using a walking belt instead of using momentum and pulling the resident to make the transfer. This lifting reaction is responsible for many injuries associated with the walking belt.

Management often is concerned about the cost of engineering changes. Engineering changes may be costly. However, injury prevention and workers' compensation savings can significantly offset the initial cost.

Engineering changes

Examples of engineering changes include:

- Provide an adequate number of patient-handling devices;
- Require transfer/gait belts and provide belts;
- Provide adequate maintenance on all devices, beds, carts, wheelchairs, etc., to include brakes;
- Modify wheelchairs, shower chairs, etc., with removable arms and scales;
- Reduce the size of laundry bags for dirty laundry;
- Provide for dirty laundry bags that allow removing filled bags from the side or under the rim;
- Remove all curbs or containment rims from the floor in shower rooms;
- Provide emergency stop buttons in all elevators.

A 2005 study of 86 health-care facilities in Ohio that received financial support and ergonomic consultation to install patient handling devices through BWC's SafetyGRANT\$ Program reported substantially decreased rates of musculoskeletal disorders (MSDs) within a two-year follow-up period.

Administrative controls for MSDs

Implementing and enforcing administrative controls can prevent many hazards in extended-care facilities. Implement administrative controls to:

- Familiarize supervisors and employees with patient-handling guidelines and enforce facility rules;
- Provide training in proper management techniques for administrators and supervisors;
- Provide wellness programs;
- Accurately record injuries on the Occupational Safety and Health Administration's OSHA's 301 form or equivalent;
- Assess care plans specifically regarding patient handling and communicate plans to affected employees before handling patients;
- Teach and practice proper patient transfer techniques, stressing that manual lifts are hazardous;
- Conduct periodic audits by directly observing patient-handling techniques;
- Develop a system to communicate changing assessment results;
- Use modified work schedules to better handle demand times;
- Implement a stretching exercise routine at the start of shifts;
- Prohibit back belts, unless required by a physician as part of a treatment program;
- Establish a footwear policy, and recommend shoes with good arch and ankle support;
- Keep items on one side of the hallway;
- Establish a system requiring supervisor and management accountability for safety.

Training in patient handling/lifting

Training and education help ensure administrators, supervisors and employees, including nursing maintenance and physical therapy personnel learn about possible ergonomic hazards. Training is most effective when conducted in conjunction with other measures, such as engineering and administrative controls.

Training is an ongoing process in which supervisors frequently review safe work practices with employees. Although training is an essential part of any occupational safety and health program, do not substitute it for eliminating hazards in the work place.

Qualified persons should design and implement the training program, which should cover:

- Overview of potential risk of back and other musculoskeletal injuries;
- Causes and early symptoms of injuries;
- Prevention and treatment methods.

Present material in a language and at a level of understanding appropriate for the trainees. Allow time for interactive questions and answers.

Training success

Most extended-care facilities have ongoing educational programs. The key to successful training is a consistent approach that regularly addresses proper resident transfer and manual material-handling.

Training must involve administrators, supervisors and staff. Administrators must commit to reducing back injuries for an injury-prevention program to succeed.

When you ask workers to change their established routines, they may be reluctant. Refusing to adopt a work procedure can reflect an unanticipated problem with the recommendation or lack of involvement in choosing the solution. To help caregivers change, they need education and training in new skills, frequent feedback and encouragement, and long-term administrative commitment.

When to train

The most essential training occurs during orientation for new employees and at regular intervals for review. The orientation/new-employee program includes:

- Job site evaluation of transferring technique by a person skilled in the art and science of transferring patients;
- Feedback to trainees;
- Basic training in handling patients.

Additional training should occur:

- When a job assignment changes;
- If equipment or process changes;
- When a lifting procedure changes;
- Annually during safety orientations.

The health-care facility should keep and update a list of trained employees and their training dates.

Nursing personnel

Train nursing personnel on:

- Type of transfer to use with each resident;
- Procedure's purpose;
- Correct use of each type of lifting equipment.

Train charge nurses for each shift on all policy aspects.

Maintenance personnel

Train maintenance personnel on:

- How to inspect lifting equipment;
- What to inspect on each piece of equipment;
- The frequency of inspection;
- Tag-out procedures for damaged equipment.

Physical therapy personnel

Train physical therapy personnel on:

- Capabilities and limits of lifting equipment;
- Correct use and purpose of each type of lifting equipment;
- Purpose and policies of the 'zero lift' policy;
- Suggested resident classification.

Studies of training in lifting

Extensive research demonstrates the effectiveness of occupational training programs in nursing.

1999 Marras — Researchers examined the spinal loading for patient handlers performing various patient transferring and repositioning tasks using a standard patient (a 110-pound female; non-weight bearing, but with use of upper body). Most patient-handling tasks, even the safest of the tasks evaluated, had significant risk.

2005 Hignett – After a systematic review of research conducted between 1960 and 2001, Hignett concluded that interventions predominantly based on technique training have had no impact on working practices or injury rates.

2006 Bos et al. – Researchers reviewed 13 studies and determine that training and education by themselves are not enough to decrease musculoskeletal symptoms in health-care workers. Combining training with an ergonomic intervention decreases symptoms.

To identify patterns of traumas or strains, an ergonomic safety and health assessment focuses specifically on tracking injury and illness records. The objective is to recognize, identify and correct ergonomic risk factors.

Recommended steps include:

- Gather relevant information on ergonomic solutions for patient-handling problems;
- Conduct baseline screening surveys using a check list to evaluate ergonomic risk factors and determine which tasks are most stressful and need improvement;
- Professionals skilled in evaluating ergonomic risk factors do job analysis in areas such as patient handling, nursing, laundry and dietary;
- Implement engineering changes to avoid the most stressful patient transfers;
- Conduct periodic surveys and follow-ups to evaluate changes;
- After each resident-handling injury or incident, determine if you can modify a task to reduce future risk and prevent the incident from recurring.

Bloodborne pathogens, infection control and indoor air quality

Bloodborne pathogens

Employees in extended-care facilities must take precautions against everything from hepatitis to tuberculosis (TB) to needlesticks.

Bloodborne pathogens rank high on the top 25 OSHA citations in nursing homes. Five of the 25 most frequently cited OSHA standards in nursing homes nationally relate to bloodborne pathogens.

OSHA's occupational exposure to bloodborne pathogens standard requires employers to use engineering and work-practice controls to eliminate or minimize employee exposure.

OSHA requires employers to protect employees whose occupation exposures them to bloodborne pathogens or other potentially infectious materials in the following ways:

- Compliance methods — Observe universal precautions to prevent contact with blood or other potentially infectious materials;
- Hepatitis B vaccine — Employers will make available the hepatitis B vaccine, and post-exposure evaluation and follow-up;
- Warning labels — Annual training is required. Affix warning labels to containers used to store, transport or ship regulated waste, blood or other potentially infectious materials; and refrigerators and freezers containing blood or other potentially infectious materials;
- Exposure control plan — The employer establishes a written exposure-control plan to eliminate or minimize employee exposure;
- Medical records — Employers establish and maintain an accurate record of medical records and treatments associated with this bloodborne pathogens standard.

Needlesticks

Statistics are not available on the number of needlestick and other percutaneous injuries among all U.S. health-care workers. However, estimates indicate that 600,000 to 800,000 injuries occur annually. The Centers for Disease Control and Prevention (CDC) estimate that each year hospital-based health-care workers sustain 385,000 needlesticks and other sharps-related injuries, an average of 1,000 sharps injuries per day.

Information is not available on the frequency of injuries among health-care personnel working in other settings (e.g., long-term care, home health care, private offices). In addition, surveys of health-care workers indicate that 50 percent or more do not report their occupational percutaneous injuries. Most reported needlestick injuries involve nursing staff; but laboratory staff, doctors, housekeepers and other health-care workers are also injured.

Needlestick solutions

Certain engineering controls will help prevent needlesticks. Except under certain circumstances, bending, recapping or removing contaminated needles is prohibited. When permitted, use a mechanical device or a one-hand scoop method to prevent needlesticks.

Advanced hypodermic needles, which include sharp-disposal containers, needle-less systems and self-sheathing needles, can help health-care workers avoid a potential needlestick. Such controls isolate or remove the bloodborne pathogens hazards from the workplace.

Indoor air quality

Indoor air quality (IAQ) in nursing homes is a critical concern for caregivers. IAQ affects bacteria growth, virus susceptibility, odor control, skin dryness and other areas.

Ventilation

A central ventilation system in nursing homes provides continuous, controlled outside air distribution.

For more than 30 years, recommended minimum ventilation rates and filtration for nursing facilities are consistent. Complying with these ventilation criteria and using appropriate source control results in acceptable IAQ.

Filtration

The benefits of filtration for hospitals are well documented and are similar for nursing facilities. Experts suggest a central ventilation system equipped with filters rated at 80 percent American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) dust-spot efficiency. This system is cost-effective and suitable to combat problem odors.

Humidity

Humidity affects bacteria and viruses, and is, therefore, an important consideration in IAQ. Maintaining humidity at specified levels creates an environment that discourages bacteria, viruses, fungi and mites. Moreover, if humidity and temperature are too high, the area feels uncomfortable. If humidity is too low, the result is drying skin and mucous membranes.

According to ANSI/ASHRAE Standard 55 Thermal Environment Conditions for Human Occupancy, keep between 30 percent and 60 percent relative humidity.

Carpet

The indoor emission of volatile organic compounds (VOCs), such as styrene and benzene, is a concern. Research by the carpet industry shows new carpet can cause allergic or flu-like symptoms and respiratory irritation. Ensure carpets display a label with guidelines for people who are sensitive to odors. Most low emissions dissipate within 48 to 72 hours.

Source control

Significant factors in maintaining acceptable IAQ include:

- Housekeeping resident rooms and toilets;
- Managing soiled laundry;
- Selecting and using proper cleaning chemicals;
- Attending to residents' personal hygiene;
- Space planning of facility for convenient access.

Infection control and airborne pathogens

Because nursing home personnel are at an elevated risk of occupational exposure to airborne infectious diseases, caregivers are concerned about infections transmitted from residents to caregivers.

Helpful documents explaining the relevant concerns and preventive measures are the CDC's "Universal precautions" and "Guidelines for infection control in hospital personnel."

TB

According to OSHA, annually, 5.3 million workers in health-care settings, including nursing homes, are exposed to TB. The risk for TB infection may be as much as 10 times higher for these workers than for the general population.

People contract the infection by inhaling a specific bacterium expelled when a TB-infected person coughs, sneezes or speaks. Although infections can occur from a one-time exposure, TB bacteria usually is acquired from repeated exposure or while performing certain high-risk procedures.

Laundry

Although soiled linen is a source of large numbers of pathogenic microorganisms, the risk of actual disease transmission appears negligible. Hygienic and common-sense storage and processing of clean and soiled linen are recommended. Moreover, management of extended-care facilities is responsible for following available Joint-Commission Standards.

Carpet

Carpet use is not an infection control issue in nursing homes. According to the CDC, there are no recommendations against using carpets in patient-care areas. Antimicrobial treatments can help reduce the spread of microorganisms in carpet in health-care facilities.

Infection control

To investigate the success of a nursing home's infection control, regularly survey the facility. Questions include:

- How convenient and used are facilities for staff hand-washing?

- Are gloves used when and where they should be?
- Are clean linens protected from contact with possibly contaminated surfaces?
- How aware are staff members of basic procedures in performing dressing changes, connecting up for tube feedings and sharps usage?

Latex gloves

After OSHA issued the bloodborne pathogens rule, workers started wearing exam gloves for everything. However, many workers stopped washing their hands. Proper hand-washing remains the best security against spreading germs and disease.

Caregivers wear gloves to protect themselves and residents from each other's germs. But, in their effort to control spreading infectious disease, caregivers are now plagued with a new dilemma — an epidemic of latex allergy.

The prevalence of latex allergy among health-care workers is between 5 percent and 18 percent. Three types of reactions can occur in caregivers who use latex products: irritant contact dermatitis, allergic contact dermatitis (delayed hypersensitivity) and latex allergy. The allergy manifests itself in flushing and itching; skin rashes and hives; nasal, eye or sinus symptoms; asthma; and (rarely) shock.

Once a caregiver becomes allergic to latex, he or she must take special precautions are needed to prevent exposure. Certain medications may reduce symptoms; but, complete latex avoidance is the most effective solution.

Job stress and violence in extended-care facilities

Job stress

The turnover among nursing assistants is extremely high. Reasons workers quit include:

- Strain of caring for chronically ill residents;
- Menial and repetitive tasks;
- Close supervision;
- On-the-job injuries;
- Lack of social and economic rewards.

High turnover is a critical issue because it negatively affects resident care. The result is fewer trained and experienced caregivers, and caregivers who often perform heavy lifts alone.

Staffing concerns

The cornerstone of worker safety and quality resident care is adequate staffing. Short staffing puts caregivers at greater risk for injury by forcing them to perform more patient lifts and transfers, often alone.

Since 1972, nursing homes in Ohio have been required to meet staffing standards. Current staffing ratios went into effect in 2001 and address resident care by nurse aides and registered nurses (RNs), as well as other staff (LPNs, activity aides, social service workers, etc. who provide direct care).

Research (Trinkoff, 2005) that examined the relationship between staffing levels and worker injury rates in 778 nursing homes in Ohio concluded that staffing levels have an important impact on worker injury rates. The more hours of nursing care provided per nursing home patient, the fewer the workplace caregiver injuries. For each

additional hour of nursing care provided, injury rates for nurses and nurses' aides fell by nearly 16 percent.

In other words, for every unit increase in staffing, worker injury rates decreased by two injuries per 100 full-time workers.

A 2005 study by Karsh, Booske and Sainfort examined whether job characteristics, the work environment and quality improvement affected nursing home employee commitment and job satisfaction, and what the effect of these were on turnover intention. More than 6,500 nursing home employees from 76 nursing homes participated in the study.

The study concluded:

- There are specific factors that any long-term care facility can address to help increase employee satisfaction and commitment and reduce turnover intentions;
- Organizational work pressure, having a work schedule that meets one's needs, feeling physically safe at work, receiving feedback and organizational quality environment determine employee job satisfaction and commitment;
- Quality improvement practices can help to influence staff outcomes;
- The quality environment of the organization must focus on both staff and resident outcomes;
- To reduce turnover, long-term care facilities should focus on reducing work pressure and role conflict and increasing flexible scheduling, safety, task clarity and quality improvement efforts.

Violence in extended-care facilities

Injuries from managing combative residents is a daily concern to extended-care facility employees. Residents who suffer from mental health conditions, such as dementia or Alzheimer's disease are especially threatening. Caregivers are vulnerable to violent assaults by unarmed residents who hit, spit, kick and bite, especially during bathing, shaving and feeding.

Statistics

According to the BLS, 4,710 on-the-job assault injuries occurred in nursing and residential care facilities in 2005. Women are at greater risk than men because they hold most nursing-home jobs.

Solutions

According to OSHA's guidelines for preventing violence for health-care and social service workers, the four components to an effective violence-prevention program, are:

- Management commitment and employee involvement;
- Work site analysis;
- Prevention and control;
- Safety and health training.

Extended-care facility employees must learn to anticipate assaults and minimize injuries. Caregivers must constantly be alert to threats to their safety. Whether a resident is cooperative or not, using the right preventive measures will cut the risks associated with restraining a resident.

Identify specific sources of combativeness through close resident observation. Consult family members and review the resident's history. Also look for patterns of behavioral and situational clues to defuse a problem before it spirals out of control. For instance, a red flag should go up if a resident is:

- Normally passive but becomes loud or argumentative;
- Not eating or sleeping;
- Failing to take prescribed medication;
- Historically violent.

Follow an emergency plan to verbally de-escalate a violent resident. This may involve calmly talking down, ringing a buzzer for backup or physically controlling a resident with a team approach.

In most cases, workers can defuse threatening patients or lead them away from a difficult scene. However, sometimes workers must restrain residents to protect themselves and others.

Chapter 8

Substance use in the work place

Substance use damages lives. You must fight to prevent drug and alcohol use among your employees. Substance use is often the silent and unseen cause of work-related accidents. Unfortunately, employers and their employees often are not aware of this invisible danger until it is too late.

National statistics show that drug and alcohol users are more likely to be involved in a workplace accident or injure other employees. Consider these statistics:

- Productivity — Substance users are 33 percent to 50 percent less productive than non-users;
- Absenteeism — Employees who inappropriately use substances are absent an average of three weeks more annually and tardy three times more than non-users;
- Accidents — Users are three-to-four times more likely to have an accident on the job, and five times more likely to file a workers' compensation claim;
- Medical claims — Substance users file 300 percent to 400 percent more costly medical claims;
- Employee theft — An estimated 50 percent to 80 percent of all pilferage, theft and loss is due to substance-using employees.

If you want to help keep your employees safe and reduce the chance of a drug- or alcohol-related accident, then just say yes to BWC's Drug-Free Workplace Program (DFWP).

The voluntary DFWP encourages employers to detect and deter substance use and misuse, and take appropriate corrective action. As an incentive, participating employers may receive technical support and may be eligible for a 10-percent to 20-percent discount on their workers' compensation premiums for up to five years.

However, even employers who do not qualify for the discount will benefit from establishing a substance-free environment for their employees. Any drug-free workplace program should include the following components:

- Written policy;
- Employee education;
- Supervisor training;
- Drug and alcohol testing;
- Employee assistance;
- Safety.

Employers who want to establish such a program may use the technical assistance and support provided by BWC and the Ohio Department of Alcohol and Drug Addiction Services.

Slips, trips and falls in housekeeping

Many factors contribute to slip, trip and fall injuries in extended-care facilities. The smallest puddle on a floor is a potential hazard. Liquids, in particular, can create a residue that may lead to a slip-and-fall hazard for nursing staff, residents, doctors and visitors.

Floor factors

Flooring in extended-care facilities is another concern affecting falls. Cleanliness, shock-absorption qualities, and hardness and softness are factors. A few survey questions to help determine a floor's condition are:

- Does the floor have a hazy or grainy look, like it is dirty or waxed over?
- Are there stains or grout on the surface?
- Is there evidence of recent spills?

Impact attenuation or shock absorption affects the extent of a fall injury, particularly by a floor's surface thickness. Fatigue from walking on excessively hard or too-soft floors also can lead to tripping injuries and falls.

Hard floors can cause fatigue by generating shocks transmitted to the entire leg and hips. Such fatigue requires more muscle activity to react and move. However, if the floor has adequate cushioning, extended-care facility workers can wear lighter, less bulky shoes.

Walking on floors that are too soft is similarly a potential tripping hazard. Just like walking in the sand or on snow, movement requires more muscle activity to maintain stability.

Statistics

According to the BLS, in 2005, nursing homes and other residential care facilities reported 16,560 injuries from slips, trips and falls that resulted in days away from work. Slips, trips and falls accounted for nearly 25 percent of all injuries occurring in nursing homes and other residential care facilities.

Solutions

OSHA's general requirements for walking/work-ing surfaces, standard 1910.22, requires keeping

floors, aisles, passageways and fire exits free of hazards. For example, to reduce hazards, keep carts to one side of all halls and avoid blocking walkways.

To avoid slippery floors and ensure steady footing:

- Wear lightweight, non-skid shoes with thick rubber soles of unitized construction;
- Stand on rubber mats that drain off liquid in dietary areas;
- Place large warning cones or signs after mopping a floor in clear view for anyone who may walk the halls.

In addition, management must ensure floor coatings are of a non-slip type.

Housekeeping

Good housekeeping is one of the most important aspects of safety in extended-care facilities. You can prevent many accidents if each employee shares responsibility for good housekeeping rather than leaving it to the cleaning staff.

Management and employees can take these steps to prevent injuries and illnesses:

- Provide the entire staff with training about chemicals and cleaning products;
- Avoid blocking hallways with resident transfer and meal-delivery equipment;
- Provide ergonomic design of equipment and facility;
- Clearly label all containers and have necessary material safety data sheets available;
- Store cleaning supplies together, not where they can be mistaken for something else;
- Be familiar with chemicals, gases and liquids used in the extended-care facility, and their proper storage;
- Dispose of hazardous substances according to safety guidelines;
- Never allow debris, such as cleaning rags and newspapers, to accumulate;
- Clean up work area immediately after completing each task;
- Clean up spilled liquids at once to prevent slips and falls;
- Post and respect wet floor signs;
- Pick up broken glass immediately with a broom and dust pan.

Chapter 10

Medical and CTD management

Proper medical management is necessary either to eliminate or reduce the risk of injuries and illnesses among nursing-home employees. Health-care providers must be part of the injury-prevention team. After an on-site review, health-care providers should regularly interact and exchange information with management. Employees should immediately report all work-related injuries and illnesses, regardless of severity, to management and the employer's managed care organization (MCO).

Employees should have a thorough understanding of the accepted procedure for reporting injuries and illnesses, and for obtaining appropriate care. MCO personnel can assist employees with injury-reporting procedures.

To help prevent repeat accidents, actively review incidents and injuries. Provide employees with prompt, competent first aid or medical care as necessary. Prompt care can frequently avoid medical complications that might result from apparently minor injuries.

CTD medical management

Proper medical management of CTDs is necessary to eliminate and reduce the risk of patient-handling injuries. Medical management through a CTD prevention program creates a means of early identification and treatment, and helps prevent future problems through rehabilitation and training.

Accident investigation

Accident investigation of extended-care facility caregivers is primarily a fact-finding procedure. Properly handled, accident investigations can help prevent recurrences of similar accidents, increase the safety and health awareness of employees and build rapport between management and the injured or ill employee.

Investigation procedure

Identifying accident causes and implementing corrective actions are the objectives of an effective accident investigation.

Questions to answer in a lifting investigation include:

- Type of resident transfer;
- Type of assistive device used;
- Number of nursing staff involved;
- Contributing resident factors, such as medication or time of day;
- Transfer conditions;
- Decisions or behaviors;
- Accountability factors;
- Defined responsibilities;
- Defined procedures.

Even minor injuries can reveal accident causes, which, if corrected, can prevent other more serious injuries. Therefore, investigate close calls, minor and non-disabling injuries and illnesses with the same vigor and thoroughness as serious injuries.

Fact-finding is the principal purpose of accident investigations. Identifying all pertinent factors that allow incidents to occur is important.

Accident information

Immediately after an accident:

- Ensure any injured or ill employee receives immediate medical care;
- Start the accident-investigation process;
- Maintain conditions at the accident scene as much as possible;
- Involve the right people — supervisor, affected employee, witnesses, ect.;
- Form a fact-finding committee for very serious accidents.

At a minimum, collect:

- Injured employee's name;
- Date and time of injury;
- Occupation and task performed when injured;
- Shift;
- Department;
- Employee's address;
- Sex;
- Age or date of birth;
- Social Security number;
- Length of service with employer;
- Length of time on this job;
- Time shift started;
- Physician and hospital name;
- Type and extent of injury;
- Description of accident or illness scenario;
- Analysis of causes contributing to the accident or illness;
- Recommended corrective actions with responsible persons;
- Injured or ill employees' statements;
- Witnesses' statements;
- Name of person completing form and date.

Information uses

Use accident-investigation information from all accidents to present a complete picture of how you manage safety in the work environment and what changes may be necessary. Then, develop appropriate justification for addressing the causes of accidents or illnesses and preventing future occurrences.

Management review of accident-investigation reports ensures the development of all pertinent information and a course of remedial action. Accident-investigation reports are important for upper-level executives. They keep management informed, allow them to ask why the incident happened and let them know the steps taken to prevent the incident from recurring. Provide copies of reports to those directly involved in making necessary corrective changes, such as maintenance staff.

Investigation reports may include photographs, drawings or other information to help clarify accident facts. Include detailed statements from witnesses and others who can provide information.

Follow-up actions

Experience shows the greatest deficiency in accident investigations is the lack of follow-up action to correct the conditions and/or behaviors that led to the accident.

A thorough accident-investigation report specifies corrective actions, identifies the person responsible for taking action and sets target dates for completion. The manager should follow up to ensure the completion of corrective action.

After the investigation is complete and corrective action initiated, provide a summary of the accident sequence, causes and corrective measures implemented.

Assign this responsibility either to the supervisor or employee-work team members. The purpose is three-fold: to provide additional safety training; to make operational changes based on the facts involved in the accident; and to let employees know the company cares about their safety and health.

Finally, encourage employee suggestions concerning safety and health issues and ask them to participate in the accident-investigation process. Seek out opportunities for employee involvement.

Regulatory agencies for extended-care facilities

There are many government and non-government, enforcement and non-enforcement organizations that can assist extended-care facilities in their endeavor to create and maintain a safe work environment.

OSHA issues specific safety and health standards that are mandatory for covered providers. OSHA also enforces a general duty clause requiring providers to keep facilities safe from recognized hazards, even if there is no specific OSHA standard for that hazard.

In some cases, OSHA issues advisory guidelines on how to protect against certain hazards not covered in a specific standard. One example is Guidelines for Nursing Homes: Ergonomics for the Prevention of Musculoskeletal Disorders.

CDC

CDC is a federal agency operating within the U.S. Department of Health and Human Services. The CDC is responsible for protecting the general public's health and responding to public health emergencies.

CDC cannot conduct investigations or issue citations or penalties. However, CDC recommendations influence the enforcement of OSHA standards. For example the bloodborne pathogen standard, automatically updates any time CDC makes new recommendations concerning bloodborne pathogens.

CDC recommendations and guidelines relating to safety and health are not mandatory because the agency does not have any enforcement power. However, state and federal agencies often view CDC advice as good standards and practice.

For instance, OSHA often relies on CDC guidelines to develop its own guidelines. In areas where no standard exists, the agency makes it clear that when there are recognized hazards, it will enforce penalties against long-term care providers who do not comply with CDC recommendations and guidelines. Extended-care facility management should practice and be aware of CDC guidelines and use them as models for developing safety and health policies.

NIOSH

Congress created the NIOSH under the OSHA Act of 1970. The organization is part of the CDC and is responsible for conducting research and making recommendations for preventing work-related illnesses and injuries. NIOSH is authorized to:

- Investigate potentially hazardous working conditions;
- Evaluate workplace hazard;
- Create and disseminate methods for preventing disease, injury and disability;
- Conduct research and provide scientifically valid recommendations for protecting workers;
- Provide education and training to individuals preparing for or actively working in the field of occupational safety and health.

HCFA

Long-term care providers must comply with all safety and health regulations developed by the Health Care Financing Administration (HCFA) concerning:

- Inspections and recordkeeping;
- Workplace violence;
- Developing safety and health programs;
- Accidents and emergencies;
- Bloodborne pathogens;
- TB and respiratory protection.

HCFA requirements often overlap OSHA requirements.

EPA

Providers must comply with all applicable Environmental Protection Agency (EPA) safety and health regulations and standards, such as inspections and asbestos. Like the CDC, the EPA also writes guidelines that are not mandatory, but which providers should be familiar with and use as guides.

FDA

The Food and Drug Administration (FDA) creates requirements that providers must meet, such as those regarding inspections and recordkeeping.

Providers are identified as user facilities and must comply with all regulations the FDA develops concerning medical devices. For instance, facilities must identify, record and report any medical device problems to the FDA or the manufacturer resulting in or contributing to the serious injury or death of a resident.

JCAHO

The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) strives to continuously improve the safety and quality of care provided to the public by providing health-care accreditation and related services that support performance improvement in healthcare organizations.

JCAHO evaluates and accredits more than 19,500 health-care organizations in the United States, including extended-care facilities. JCAHO is an independent, not-for-profit organization, and the world's leading health-care standards-setting and accrediting body.

BENHA

The Board of Examiners for Nursing Home Administrators (BENHA) is a professional board of nursing home administrators that offers a national examination for administrators.

ODH

The Ohio Department of Health (ODH) seeks to improve the health of Ohioans. Goals include ensuring the quality of public and private health-care delivery systems through licensing, certification and registration of health-care providers, facilities, local health agencies and abatement professionals.

The department licenses about 1,000 extended-care facilities with about 97,000 beds. It also licenses residential-care facilities that provide personal care and supervision, and limited skilled nursing care. The department licenses homes for the aging as a combination nursing home and residential-care facility.

ODH's Bureau of Healthcare Standards and Quality conducts on-site surveys for compliance with state and federal rules and regulations in extended-care facilities. Each facility in Ohio receives at least one unannounced survey (inspection) during a nine-to-15-month survey cycle.