OSHA AND YOUR WORKPLACE

OSHA is the abbreviation for the Occupational Safety and Health Administration, a government agency that oversees workplace conditions. OSHA develops rules and regulations designed to make sure that both the workplace and employees are safe, and it also has the responsibility for enforcing compliance with OSHA rules and regulations.

Most people have heard of OSHA, but not many know what OSHA does and if they think of OSHA, they think of an organization that inspects factories, construction sites, etc. so that large industrial accidents don’t occur and workers aren’t injured.

But OSHA is concerned with workplace safety and employee safety in health care facilities, as well, from large hospitals to small clinics. The potential for injuries – physical injuries, but also injuries of a specific nature – to patients and employees in these settings is very real and to protect the patients and yourself, there are some basic, OSHA-generated safety procedures that you should know.

OBJECTIVES

When the student has finished with this module, he/she will be able to:

1. Identify three reasons why illness/injury can occur in a health care facility.
2. Identify three potentially infectious materials.
3. Identify which bodily fluids are considered potentially infectious.
4. Identify the basic method used to prevent contamination with infectious materials.
5. Identify the two most common causes of needle stick injuries.
6. Identify two important actions you must take if you suffer a needle stick injury.
7. Identify an OSHA recommendation that can reduce back injuries at work.
8. Identify the person/persons responsible for deciding what PPE is needed.
9. Identify an important rule of hand washing.
10. Identify two important rules governing hazardous materials in health care facilities.

WORKPLACE HAZARDS IN HEALTH CARE FACILITIES

A health care facility – hospital, clinic, long-term care center, etc. – is a place where people with medical problems come for help, places that patients and staff perceive as safe. However, health care facilities are also places where people can become sick or injured. There are three basic reasons why illness or injury can occur in a health care facility:

- Infection: Some patients come to health care facilities for injuries or for medical conditions that are not communicable or contagious. But many patients do have infectious diseases and these can be spread to staff, and the staff can spread them to patients or other staff members. If you are working in a health care facility, you must know how to protect yourself and the patients from disease transmission.

- Hazardous materials: Hazardous materials are very commonly encountered in health care facilities. Some of these are easily recognized, such as blood, feces,
urine, sputum, and drainage from wounds, etc., and anything that comes into contact with these materials such as surgical dressing materials, disposable gloves, clothing, or containers. All of them – the bodily fluids and anything that contacts them – may be contaminated with bacteria, viruses, or other pathogens. Other hazardous materials are cleaning products, medications, substances used in therapeutic procedures, and any medical equipment that has contacted a possible source of infection. If you are working in a health care facility, you must know how to recognize, handle, and dispose of hazardous waste, etc.

- **Ergonomics:** Ergonomics is defined as “the science of ensuring safe interactions between people and what they work with.” Ergonomics designs tools and procedures that prevent injury in the workplace. For example, an ergonomically appropriate tool such as a computer workstation is specially designed to prevent eye strain, back pain, and repetitive use wrist and hand injuries. In health care facilities, ergonomics is primarily concerned with musculoskeletal injuries. Staff members often need to lift and/or move patients, and they need to perform numerous physical tasks that involve bending, carrying, lifting, etc. If the physical demands of the job are not performed properly, injuries are a real possibility.

OSHA has produced guidelines, rules, and regulations for managing aspects of health care facility safety as they pertain to infection, hazardous material management, and ergonomics. Much of the OSHA material regarding these issues is probably familiar to experienced CNAs, but reviewing the information about infection and hazardous materials is useful.

**OSHA, INFECTION, AND THE WORKPLACE**

The OSHA infection control guidelines are designed to help prevent disease transmission from patient to caregiver or patient to patient. The most important parts of these guidelines for CNAs to be familiar with are the ones involving **blood-borne pathogens and infectious material, needle stick procedures, the use of personal protective equipment (PPE), and hand washing.** These will all be discussed separately but they are actually very interdependent.

**Blood-borne Pathogens and Infectious Material**

OSHA has a standard for occupational exposures, and potential exposures to blood or other **potentially infectious materials** (Standard 29 CFR 1910.1030).

**Learning Break:** OSHA defines potentially infectious material as: “The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; (2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and (3) HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other
solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

The standard has identified blood (obviously) and essentially all bodily fluids as potentially infectious or hazardous and OSHA recommends the use of standard precautions (previously called universal precautions) in any situation in which someone may be exposed to blood and/or bodily fluids.

Learning Break: It is important to remember that disease transmission from exposure to blood and body fluids can happen by ingestion, inhalation, needle sticks, skin contact, and splashes to the eye, and the exposure can be very brief and barely noticeable.

Standard precautions are infection control practices that prevent disease transmission. These infection control practices include information and guidelines about:

- Hand washing techniques.
- PPE: what to use and when.
- Prevention of needle stick injuries.
- Cleaning and disinfection.
- Respiratory hygiene.
- Waste disposal.
- Safe injection practices.

What does this OSHA standard mean to you when you are working as a CNA? It means that you must a) be able to recognize situations in which you may be exposed to blood and/or bodily fluids, b) know how to protect yourself and others in these situations from contamination from blood and/or bodily fluids, and c) know what to do if you have, or suspect you have been exposed.

Example: You are caring for someone with an infected surgical incision. The surgical dressing must be changed, and you have received training on the proper techniques for this procedure. You should recognize this as a situation in which you may be exposed to blood and/or bodily fluids because the dressing covers an infected surgical incision: there is likely to be pus and blood on the dressing because of the infection and because the skin and tissues were cut to make the incision. To protect the patient and yourself, you should first wash your hands, and wear disposable gloves when touching the wound and the dressing material. To protect others from being contaminated, you should discard the dressing material in a container that is clearly marked “hazardous waste,” you should discard the gloves in the same container or a similar one, and you should wash your hands. If for some reason you come into contact with blood or bodily fluids during the procedure, you must immediately notify your supervisor. Each health care facility should have procedures for dealing with an exposure.
Needle Stick Injuries

Needle stick injuries were once a frequent occurrence in health care facilities. Education and new techniques for using and disposing of needles and other medical equipment that may be contaminated and can puncture the skin (needles and this sort of equipment are commonly called “sharps”) have decreased the rate of needle stick, but they are still common: some sources estimate the number of needle stick injuries in health care facilities to be 800,000 or more each year. Needle stick injuries can cause infection with hepatitis B, hepatitis C, and HIV.

Learning Break: The risk of disease transmission after a needle stick can be relatively low (0.3%, or 1 in 300 after exposure to HIV) or high (up to 40% or 4 in 10 after exposure to hepatitis B). However, whether or not you become infected depends on many factors.

There are many reasons why needle stick injuries occur. The most common are improper use and improper disposal. Improper use involves recapping a syringe (never recap!), improper transfer of a needle or a sharp (set the sharp or needle down and let someone pick it up; don’t hand it to them), removing a needle from a syringe, walking with a needle or a sharp in your hand (collisions in these situations are relatively common) among others. Improper disposal involves failing to put the contaminated needle or sharp in a designated, labeled sharps container and/or placing it in a container that is full.

If you do suffer a needle stick or an injury from a sharp, you must notify your supervisor immediately. A risk evaluation will have to be made, first aid measures need to be done, and in some circumstances you will be given medications to prevent the development of an infection. Almost all health care facilities are required to have a sharps injuries log. The log records all the information about a needle stick/sharps injury. Make sure that your injury has been properly recorded.

Learning Break: As mentioned earlier, the risk of disease transmission from needle stick and sharps injuries varies widely and it depends on how you were exposed, your immune status, and the strength of the infectious agent. If you have one of these injuries, do not decide for yourself whether or not the injury is serious or if it should be treated. You must have the injury professionally evaluated.

Personal Protective Equipment

OSHA regulations state that PPE must be available – and provided free to the employee by the employer – and easily accessible to any employee who may possibly be exposed to blood or potentially infectious materials. The employer should also provide training on how to use PPE. PPE includes face shields, gloves, goggles (personal eyeglasses or contact lens are not acceptable), gowns, masks, and shoe covers. PPE, along with hand washing and safe disposal of infectious or potentially infectious
materials, are the parts of standard precautions that are most closely concerned with the OSHA standards for infection prevention.

The biggest question, of course, is what PPE you need to use in any particular situation, and standard precautions provides the answer: you need to use PPE based on the nature of your interaction with the patient and what, if any, infectious risks are presented by the patient. The nature of your interaction with the patient is something that is easy to determine, but how do you know what infectious risks any particular patient might present?

The answer is, you don’t. Determining the potential infectious risk presented by any one patient’s medical condition is the responsibility of someone with specific training, someone such as a physician, an infectious disease specialist, or an infection control nurse. And once that risk has been determined, that same person should provide you and other staff members with information about what PPE to use and when.

**Learning Break:** All PPE should be considered to be one-time use and disposable, and all PPE should be disposed of as if it is contaminated.

**Hand Washing**

Hand washing has become second nature for every health care professional. The OSHA advice about hand washing does not add anything new to the hand washing techniques you already use. Hand washing should be performed before each patient contact, and it should be performed after each patient contact. OSHA also states that after removing disposable gloves or after contacting blood or potentially infectious material, employees must wash hands with an appropriate soap and water. If an appropriate soap and water are not immediately available, the employee can use and alcohol-based disinfectant, but the employee must wash his/her hands as soon as possible with soap and water. If the employee has not used disposable gloves or has not had contact with blood or a potentially infectious material, it is acceptable to simply use an alcohol-based disinfectant.

**Learning Break:** OSHA regulations clearly state that hand washing facilities should be easily and immediate accessible. If you need to go out of a room and walk 20 feet to a hand washing station – that is not acceptable.

**HAZARDOUS MATERIALS**

Some of the OSHA regulations that are concerned with hazardous materials – blood and other infectious material – have already been covered. However, you may at some point be working with hazardous chemicals. These may be cleaning or disinfecting products, therapeutic gases, drugs, or substances such as formaldehyde used in medical procedures.

OSHA requires all health care facilities to determine if they have hazardous materials in the workplace. If so, these must be clearly labeled as hazardous and a material safety data sheet (MSDS) should be available (Note: drugs are an exception to this rule). The MSDS provides ingredients, the health risks possible when exposed, and first aid
information about the chemical or product. The employer must make sure that the MSDS is easily available to employees, and that employees should receive training about the health risks of the hazardous materials, how to avoid exposure, and what to do if they are exposed. Finally, the employer is responsible for having a cleanup and disposal plan for every hazardous material on site in case of a spill.

Learning Break: Do not try and clean up blood spills or mercury spills. These must be cleaned up using specific techniques and in the case of mercury, improper cleanup technique can create a dangerous situation.

ERGONOMICS

OSHA has guidelines for ergonomics, but these are “advisory in nature.” The guidelines recommend that each health care facility provide a specific program that identifies potential ergonomic problems, implements a program to prevent them, provides a reporting process for ergonomic injuries, and periodically evaluates the success of the program.

Ergonomic problems in health care facilities involve, for the most part, musculoskeletal injuries that happen when staff is moving patients. These problems happen because of repetitive motion, poor technique, over reliance on manually moving patients, and awkward postures that place strain on backs, knees, shoulders, etc., and they can be prevented. To that end, the OSHA guidelines provide instruction for health care professionals on proper patient movement techniques. These techniques all stress minimizing manual lifting of patients if at all possible.

Example: Moving the patient from bed to chair. First determine if the patient can bear weight. If yes (but only partially) and the patient is cooperative, use the stand and pivot technique along with a transfer belt. If the patient can’t bear weight, use a body sling and two caregivers. (Note: This technique along with ones for many other patient movements scenarios can be found on the OSHA website, www.osha.gov, under the title “Ergonomics: Guidelines for Nursing Homes.”

SUMMARY

OSHA is concerned with making sure that workers are safe in the workplace. For CNAs that means that the major health and injury risks associated with their job – the risk of infection, exposure to hazardous materials, and ergonomic injuries – are clearly identified, that there are plans and training in place to prevent them, and the employees are given the equipment they need to protect themselves from these hazards. If there is an issue of safety in your workplace or you need more information, OSHA can be contacted at www.osha.gov or at 1-800-321-6742.