Needlesticks and Sharps Quiz

QUESTION

What are the three fundamental elements of a training regime with sharps’

ANSWER

1. Know how to use specific sharp instruments correctly.
2. Know how to safely discard or prepare sharp for reuse, if appropriate.
3. Recognize safe needle devices and use according to instructions.

WHY IS IT RIGHT

INTRODUCTION ‘ GENERAL

OSHA estimates 5.6 million workers in the U.S. healthcare industry are at risk of occupational exposure to bloodborne pathogens via needlestick injuries and other sharps-related injuries.

Each year 384,000 needlestick injuries and other sharps-related injuries are sustained by hospital-based healthcare personnel. This equates to an average of around 1,000 sharps injuries occur per day in U.S. hospitals.

Including other non-acute healthcare facilities, it is estimated that 600,000 healthcare personnel incur a needlestick injury each year in the U.S. 40% of injuries occur after use and before disposal of sharp devices, 41% of injuries occur during the use of sharp devices on patients, and 15% of injuries occur during or after disposal (CDC unpublished data)

DEFINITIONS

A. Needlestick Injuries

Needlestick injuries are wounds caused by needles that accidentally puncture the skin.

Needlestick injuries are a hazard for people who work with hypodermic syringes and other needle equipment. These injuries can occur at any time when people use, disassemble, or dispose of needles. When not disposed of properly, needles can hide in linen or garbage and injure other workers who encounter them

unexpectedly.

B. Sharps

“Sharps” include needles, as well as items such as scalpels, lancets, razor blade, scissors, metal wire, retractors, clamps, pins, staples, cutters, and glass items. Essentially, any object that is able to cut the skin can be considered a “sharp”.

NEEDLESTICK/SHARP INJURY HAZARDS

These injuries transmit infectious diseases, especially blood-borne viruses. Concern includes the Human Immunodeficiency Virus (HIV) which leads to AIDS (Acquired Immune Deficiency Syndrome), hepatitis B, and hepatitis C.

Incidental punctures by contaminated needles can inject hazardous fluids into the body through the skin. There is potential for injection of hazardous drugs, but contact with infectious fluids, especially blood, is by far the greatest concern. Even small amounts of infectious fluid can spread certain diseases effectively.

Sharps can create a cut in the skin which allows contact between blood, or fluids.

The risk of infection after exposure to infected blood varies by bloodborne pathogen.

The Ontario Hospital Association/Ontario Medical Association (2016) estimate that after an injury in workplace situations from a needle contaminated with hepatitis B virus, there is a 6 to 30% chance that an exposed person will be infected. In a similar situation with HIV, there is about a 0.3% chance of infection, and there is about a 1.8% chance of infection for hepatitis C.

Because the hepatitis B virus may survive on environmental surfaces for more than a week, indirect exposure can occur via contaminated inanimate objects.

HOW DO NEEDLESTICK INJURIES OCCUR’

Injuries can occur at every stage of their use, disassembly, or disposal.

A report from the Centers for Disease Control and Prevention (CDC) in the United States lists the following percentages for injury rates from a study with data collected from 1995 to 2007:

Injuries involving hollow-bore needles:

- **During or after disposal: 22%**
    - In transit to disposal.
    - Improper disposal.
    - During disposal.
- **After use, before disposal: 19%**
    - Activation of safety feature.
    - Recap needle.
    - During clean up.
- **During use: 52%**
    - Access IV line.

    - Transfer/process specimens.
    - Pass/transfer equipment.
    - Collision with sharp or worker.
    - Insertion or removal of needle.
    - Other.

Injuries involving solid sharps:

- **During or after disposal: 3%**
    - In transit to disposal.
    - During disposal.
    - After use, before disposal: 15%
    - Sharp left in unusual location.
    - During clean up.
- **During use of the item: 70%**
    - Processing specimen.
    - Collision with sharp or worker.
    - Manipulate sharp in patient.
    - Handle, pass, transfer equipment or specimen.
    - Suture needle handling.
    - Other.

Equipment design, nature of the procedure, condition of work, staff experience, recapping, and disposal have all been mentioned as factors that influence these occurrences.

WHY IS EVERYTHING ELSE WRONG

PREVENTION / PRECAUTIONS

What **Employers and Employees** need to **Prevent** injury from needlestick incidents in the workplace.

Employers:

- Implement the use of engineering controls to reduce needlestick injuries.
- Avoid the use of needles when there are other safe alternatives.
- Implement use of devices with safety features.
- Set priorities and strategies for needlestick injury prevention by examining local and national information about risk factors.
- Ensure proper training of employees on the safe use and disposal of needles.
- Modify work practices that have an increased risk of a needlestick injury.
- Promote safety awareness in the work environment.
- Establish procedures for and encourage the reporting of all needlestick and other sharps-related injuries.
- Evaluate the effectiveness of prevention efforts and provide feedback on performance.

Employees:

- Avoid recapping needles.
- Before beginning any procedure using needles, plan for safe handling and proper disposal.
- Help your employer select and evaluate devices with safety features.

- Use devices with safety features.
- Report all needlestick and other sharps-related injuries.
- Dispose of used needles in appropriate sharps disposal containers.
- Inform your employer of hazards from needles that you observe at work.
- Participate in bloodborne pathogen training and follow recommended infection prevention practices, including hepatitis B vaccination.

EMPLOYEES NEED TO DO IF EXPERIENCE A NEEDLESTICK/SHARPS

They should **immediately:**

- Wash wound with soap and water
- Flush out mouth, nose, or skin with water
- Irrigate eyes with water, saline, or sterile irrigates
- Report the incident to your supervisor
- Immediately seek medical treatment at the nearest ER or treatment facility.

SHARPS DISPOSAL

An effective system for disposing of used needles and sharps is crucial to preventing injuries. Have disposal containers readily available.

Workers should place needles in wide-mouth, puncture-proof containers. Locate disposal containers specifically where needles and sharps are used to make safe disposal possible. Replace the containers before they are completely filled – sharps containers should be removed and replaced when they are three quarters full. Make sure they are sealed, collected, and disposed of in accordance with local regulations for biomedical waste.

All staff should report every incident in which they find needles or sharps left at the bedside or thrown into the regular garbage.

SURVEILLANCE PROGRAM PROTOCOL

Surveillance programs that provide in-depth analysis of accidents are an important tool for obtaining information. The goals of these programs should include:

- Determining the rate of injuries.
- Investigating the factors that cause the injuries.
- Ensuring that injured workers receive proper treatment.
- Identifying areas in which the prevention program needs improvement.
- Leading to practical strategies for dealing with the problem.

STAY SAFE AROUND SHARPS

1. Training

- Know how to use specific sharp instruments correctly.
- Know how to safely discard or prepare sharp for reuse, if appropriate.
- Recognize safer needle devices and use according to instructions.

2. Discard correctly and walk away

- Never recap, bend, break or remove needles or other sharps after use.
- Discard in a sharps bin.

- Have the bin close to where you are using the sharp.
- Make sure the bin is not overfull.
- Do not put your fingers into the bin.
- Do not push or force items into the sharps bin.

3. Needle free

- Avoid using needles where safe and effective alternatives are available, including:
- Needleless connectors for IV delivery systems.
- Sliding needle shields attached to disposable syringes and vacuum tube holders.
- Needles or sharps that automatically retract into the device.
- Self-blunting needles; and
- Hinged or sliding shields attached to phlebotomy needles, winged-steel needles, and blood gas needles.

4. Report injury

- Complete necessary documentation.
- Get details and blood samples from patient.
- Give your own samples promptly.
- Attend follow-up sessions.