



A Union of Professionals

## Health and Safety Program

# NEEDLESTICKS: EVERYBODY'S PROBLEM

### Why Be Concerned?

Today, most healthcare workers rank the potential of work-related Hepatitis B (HBV) and Human Immunodeficiency Virus (HIV) infection high on their list of occupational concerns. The greatest exposure to these infections comes from accidental needlestick injuries.

The Centers for Disease Control (CDC) estimates that six percent to 30 percent of healthcare workers who receive a needlestick injury from a patient positive with Hepatitis B antigen will become infected. Nearly 12,000 healthcare workers contract work-related Hepatitis B infections every year. From 500 to 600 of these workers require hospitalization; 250 will ultimately die from the infection or a related disorder. Between 700 and 1,200 will become chronic virus carriers.

The risk of infection with HIV is very small, but real. A healthcare worker who sustains a single needlestick from a patient known to be infected with HIV has less than a five in 1,000 chance of becoming infected.

### Who Is at Risk for Needlesticks?

All healthcare workers are at risk for needlestick injury to varying degrees. Every healthcare setting is different, but most studies and surveys identify the following high-risk groups:

- Nurses have the highest frequency of injury reports.
- Housekeeping staff usually rank second.
- Laboratory staff and phlebotomists have high rates.
- Nursing students and medical students report frequent needlesticks in special surveys.

Other high-risk groups include pharmacists, dialysis personnel, inhalation therapists, laundry workers, physicians and dietary staff.

### How Do Needlesticks Occur?

We are only beginning to understand how these common injuries occur. There are still many gaps in our knowledge--injuries occur for a combination of reasons, from unsafe needles and equipment to disregard for workers "downstream." No two hospitals are the same, but here are common situations that have been associated with needlestick injuries:

**WORK**  
shouldn't  
**HURT**

- **Nursing** needlestick injuries are usually associated with procedural problems and recapping, with a few sticks occurring because of stray needles. General-use syringes account for most sticks (they are more abundant than other needles), but a greater risk of injury appears to come from those procedures that require several needles. For instance, heparin flushes produce at least three contaminated needles that are usually not disposed of until after the procedure. I.V. butterflies with entangled loops of tubing also pose a hazard. When nurses must exert force to counter resistance during the withdrawal of a needle, the risk of injury also increases.
- **Housekeeping, laundry and dietary staff** needlestick injuries are always associated with improper disposal of needles by clinical staff and stray needles.
- **Laboratory workers** sustain needlestick injuries during procedures and recapping. One study found that vacuum tube phlebotomy was associated with an injury rate four times higher than the rate when disposable syringes are used. Recapping must be done because the needle has to be unscrewed from its reusable holder.

### **What Are the Solutions to This Problem?**

Eliminating needlestick injuries in the hospital requires communication and cooperation on the part of all staff. The first big step is to understand the problem in your hospital. **Everyone who sustains an injury must be encouraged to report the incident.** We must overcome chronic under-reporting and reluctance to report (a survey of nurses found that more than 50 percent of those who sustained an injury chose not to report it). Stray needles and improperly discarded needles should also be investigated.

It is also a good approach to promote better work practices, use of new technology, proper disposal and a sensitivity for the workers downstream.

Discuss changes in work practices with your co-workers and colleagues. The issue of recapping deserves special attention. Recapping is generally not recommended; however, there may be times when recapping cannot be avoided to protect you and your co-workers. Use those procedures and devices that do not require hand movement toward the needle. Use a shielding device or place the needle cap on a table or tray and slide the needle into it, using a one-handed technique. Phlebotomists might try drawing blood into a syringe connected to a winged I.V. set and then injecting it into a vacuum tube, or using a luer adapter in a phlebotomy holder.

### **Other Things That You Can Do to Protect Yourself and Others**

1. Avoid pulling hard if you encounter resistance when withdrawing needles from patients. Seek assistance when using a needle in caring for an uncooperative patient.
2. Dispose of needles properly. Needles left on beds, gurneys, treatment tables or bedside tables may injure staff, patients or visitors. After use, dispose of needles in puncture-resistant containers.
3. Pick up improperly discarded needles with care and dispose of them in a puncture-resistant container.

4. Avoid long-distance disposal of needles. Carry a portable puncture-resistant container when containers are not available in patient rooms.
5. Take advantage of a Hepatitis B vaccination program if your job puts you at high risk of exposure to needles and/or blood and other bodily fluids.

### **What to Do If a Needlestick Occurs**

Don't take chances with your health. If you sustain an injury, get immediate attention. Counseling for possible HIV infection is important. The Centers for Disease Control now recommends immediate surveillance and treatment for persons who are infected with HIV. A combination of Hepatitis B Immunoglobulin (HBIG) and vaccine administered shortly after an exposure has proven effective in preventing HBV infection.

You should also follow these guidelines:

- Thoroughly wash the injury with soap and water as soon as possible.
- If known, write down the name, site and hospital number of the source patient.
- Report the injury to your supervisor and fill out a report-of-injury form.
- Report the injury to the Employee Health Service or other designated department so that appropriate treatment and follow-up care can be started promptly.

### **What About Other Exposure?**

The following exposures also need to be reported to Employee Health immediately:

- Lacerations or open cuts exposed to substances such as blood, semen, vaginal secretions, cerebrospinal fluid or other body substances with visible blood.
- Exposure of mucous membranes (for example, eyes, nose, mouth) to blood or other body substances.
- Bite wounds.

**For more information, contact the AFT Healthcare Occupational Safety and Health Program at 202/393-5674.**