Preventing Needlestick Injuries

Richmond State Hospital Staff Development
The Problem

- CDC estimates ~385,000 sharps injuries annually among hospital-based healthcare personnel*

- Sharps injuries are a hazard
  - Increased risk for bloodborne virus transmission
  - Cost to workers and healthcare system

Bloodborne Virus Transmission

Sharps injuries are an important concern because they increase the risk for the transmission of bloodborne viruses. The bloodborne viruses that are of primary concern for transmission from percutaneous injuries during patient care are hepatitis B and C viruses, and human immunodeficiency virus (or HIV), the virus that is associated with AIDS. The average risk of transmission after an occupational percutaneous exposure varies by bloodborne virus.

Healthcare personnel are at higher risk of being infected with HBV following a sharps injury than HCV or HIV. Fortunately, there is a vaccine that protects exposed healthcare personnel from getting HBV. The average risk of HCV transmission after a percutaneous exposure to HCV-infected blood is approximately 1 in 50 exposures. The average risk of HIV infection after a percutaneous exposure to HIV-infected blood is about 1 in 300 exposures.
Bloodborne Virus Transmission

**Virus**

- Hepatitis B virus (HBV)
- Hepatitis C virus (HCV)
- Human immunodeficiency virus (HIV)

**Risk from Percutaneous Injury**

- 6%-30%*
- Approx. 2%
- 0.3%

*Risk applies to unvaccinated workers only
The Costs of Sharps Injuries

- Medical costs
  - $71 to ~$5,000 per exposure*
- Lost time from work
- Emotional cost
- Long-term costs

When Needlestick Injuries Occur

- 40% During use
- 40% After use and before disposal
- 15% During disposal
- 5% Other
Injuries Related to Work Practices

- Injuries occur because of the following:
  - Passing or transferring equipment
  - Recapping contaminated needles
  - Colliding with coworkers
  - Decontaminating/processing used equipment

- Injuries occur from sharps left in unusual places:
  - Laundry
  - Mattresses
  - Tables, trays, or other surfaces
Preventability of Needlesticks in NaSH Hospitals, June 1995—December 2003 (n=10,661)

- Preventable, 64%
- Nonpreventable, 18%
- Undetermined, 18%

- Unnecessary Needle Use, 15%
- Safer Needle Device Available, 26%
- Improper Safety Device Activation, 6%
- Unsafe Work Practice, 7%
- Improper Disposal, 9%
- Other, 1%
Preventing Needlestick Injuries
Health Care Worker’s Checklist

Following proper work practice procedures will minimize the risk of needlestick injury.

The three following slides will provide practical steps you should take to help you prevent a needlestick injury.

(This educational project was developed exclusively by the American Nurses Association for the purpose of providing objective information regarding Needlestick safety and prevention.)
Prior to procedure using sharps:

- Ensure all equipment is available and within arm’s reach.
- Ensure lighting is adequate.
- Place a sharps disposal container nearby and know where it is located.
- Assess patient’s capacity for cooperation; request additional help if patient needs to be physically stabilized.
- Instruct patient to avoid sudden movement.
- Do not expose sharps/needles until moment of use and keep pointed away from user.
During procedure:

- Maintain visual contact with sharps during use.
- Remain aware of positioning of other staff to avoid accidental contact.
- Do not pass sharps by hand; place and retrieve from predetermined centralized location/tray.
- Alert other staff when placing or retrieving sharps.
Post-procedure:

- Activate safety features of sharps and check (visual, auditory) to ensure features are activated and locked in place.
- Transport reusable sharps in secured closed container.
- For non-reusable sharps, visually inspect disposal container to ensure device will fit.
- Keep fingers away from tip of device when disposing, and avoid placing hands close to the opening of the container.
Examples of Safety Devices Provided @ RSH

**Self Re-sheathing Needles**
- As seen in the picture above, initially the sleeve is located over the barrel of the syringe with the needle exposed for use.
- After the device is used, the user slides the sleeve forward over the needle where it locks in place and provides a guard around the used needle.

**Syringe with Retractable Needles**
- As seen in the picture above, after the needle is used, an extra push on the plunger retracts the needle into the syringe, removing the hazard of needle exposure.

**"Add on" Safety Feature**
- As seen in this picture, hinged or sliding shields attached to needles, act as an "add on" safety feature.
Recapping Needles

Recapping needles puts personnel at risk for an accidental needle stick. This practice should be avoided when it is reasonable to do so. Plan the use of needles and syringes carefully. Advanced planning is very important; insuring that all necessary supplies are available (e.g. sharps container) will help reduce hazards and risks. Needle devices which have built-in safety control devices, such as those that use a self-sheathing needle, should be used when possible.
Recapping Needles Guidelines

1. Place a syringe and needle in an appropriate sharps container immediately after use without recapping when it is reasonable to do so. This should always be the first choice.

2. Have a sharps container at the point of use.

3. Never remove a protective cap with your mouth, and never replace a protective cap with your mouth.

4. Do not hand-pass exposed needles/syringes/sharps from one person to another.

5. When materials are drawn up into a syringe with one needle (e.g. filter needle) and the administration will be with a different needle, recap following the guidelines for recapping explained in the following slide.

6. If you find used/exposed needles and/or syringes, carefully place them in a sharps container. Use a mechanical device, such as a forceps or clamp, to assist with disposal if necessary.
If recapping is necessary, a one-handed technique should be used:

1. Place the cap on a flat surface, then remove your hand from the cap.
2. Insert the syringe needle tip deep into the plastic protective cap on the flat surface.
3. Press the tip of the plastic cap against an inanimate object in order to secure it in place.
4. Never use two hands to begin the needle recapping process.

1. Place cap on hard flat surface.

2. Scoop cap with end of needle so that the cap is sitting on the needle.

3. Press the cap and needle on the hard flat surface until the cap snaps into place.
Additional Helpful Information:

- **Never** recap dirty needles.
- Minimize the distance or length of time one walks around with syringes and needles, whether filled for injection or empty.
- Avoid carrying syringes around in your hand or pocket. Place them in a secondary hard plastic container for transport when possible.
- Take a sharps container with you when you are going to administer an injection outside of the medication room.
**You** are Part of the Prevention Process when You

- Adhere to safe practices and assist and support coworkers in safer practices
- Report injuries or blood/body fluid exposures, sharps injury hazards, and near misses
- Participate in training for devices and properly use sharps safety features
Congratulations! You have completed the training on Preventing Needle Stick Injuries! Please Print, Read, Sign and Send This Slide to Staff Development.

As a licensed nurse, I recognize that exposure to bloodborne pathogens through needlestick injuries is a serious and potentially deadly occupational risk. I am also aware that OSHA’s Bloodborne Pathogens Standard and the Needlestick Safety and Prevention Act provide protections to health care workers. These include requirements for employers to maintain and update exposure control plans, implement work practice controls, compile a sharps injury log, and evaluate improvements in medical safety device technology with input from direct care staff. I recognize that I play an active role in ensuring that my work environment has necessary safeguards to protect against preventable needlestick injuries, including the opportunity to provide input toward the evaluation and selection of the safest medical devices. I recognize that the law requires my employer to solicit this input from staff nurses in updating the exposure control plan annually.

I pledge to:

• Be knowledgeable about needlestick safety and prevention as well as sharps safety and injury prevention at RSH and to help educate my peers.
• Document any concerns I have about compliance with workplace needlestick injury prevention and safety measures, including any problematic sharps devices.
• Report immediately any injuries I sustain from a sharps incident for evaluation and treatment and to follow up on post-injury treatment recommendations.
• Utilize safety engineered medical devices and proper practices for sharps disposal in my work environment.

Printed Name ________________________________

Signature _____________________________________ Date __________________