Sharps Safety

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Occupational exposure to bloodborne pathogens from needle sticks and other sharps injuries results in more than 385,000 injuries to hospital personnel annually. Accidental cuts or needle stick injuries occur in up to 15% of all surgeries. In hospitals, 80% of sharps injuries are due to the use of hypodermic needles, suture needles, butterfly needles (winged), scalpels, blood collection sharps, and IV stylets. Other devices, including those made of glass, can also cause injuries.

Sharps injuries carry the risk of transmission of hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV) and have also been implicated in the transmission of more than 20 other pathogens. The risk of infection from a contaminated sharp is dependent upon the pathogen, the severity of the injury, and the availability and use of appropriate prophylactic treatment.

Risk of Infection from a sharps injury:
- Hepatitis B: 1 in 5
- Hepatitis C: 1 in 50
- HIV: 1 in 300

Sharps injuries can occur before, during, or after the use of a sharp while providing care. Using sharps is considered a “high risk situation.” During patient care, a sharps injury can occur when inserting or withdrawing a needle, inserting needles into IV lines, or handling or passing of sharps to another worker. After patient care, a sharps injury can occur when recapping a used needle or transferring a specimen. Sharps injuries can also occur during and after sharps disposal when disposing of sharps into proper containers, cleaning up after a procedure, or from sharps left on floors, tables, in the linen or non-sharps waste containers.

In response to sharps injuries, the Federal Needlestick Safety and Prevention Act (2000) requires the use of engineered sharps injury prevention devices. Manufacturers have responded with a wide range of sharps safety devices including specialty areas such as the OR. Sharps safety devices include needle-free IV systems, sheathed or retractable needles and scalpels, blood transfer adapters, non-breakable plastic vacuum and capillary tubes, and safer sharps disposal containers of various sizes and design.

ONE Needle, ONE Syringe, ONLY ONE Time

The CDC One Needle, One Syringe, ONLY ONE Time campaign promotes the basic expectation that safe injection practices are used anywhere injections are administered. Syringe reuse and misuse of medication vials has led to numerous outbreaks, including Hepatitis B and Hepatitis C, and the need to alert over 100,000 patients of exposure in the past decade. Reuse of syringes can transmit infectious diseases. Three principles of practice guide this standard of care:

1. Needles and syringes are single use devices. Do not use needles and syringes for more than one patient or reused to draw up additional medication.
2. Do not administer medications from a single-dose vial or IV bag to multiple patients.
3. Limit the use of multi-dose vials whenever possible. Dedicate multi-dose vials to a single patient only whenever possible.
Always follow proper infection control practices during the preparation, administration, and disposal of injected medications. After a syringe has been used to enter or connect to a patient’s IV, it is contaminated and should not be used on another patient or to access a medication vial. Do not use bags or bottles of intravenous solution as a common source of supply for more than one patient.

Remember to wear appropriate personal protective equipment (PPE) when handling sharps. Wear a surgical mask when placing a catheter or injecting into the spinal canal or subdural space. Finally, perform hand hygiene before and after patient contact and procedures.

What can you do to prevent a sharps injury?

1. **Be prepared!** If possible, eliminate the use of sharps when safe, effective alternatives are available. When that is not possible, organize the work area so that appropriate sharps disposal containers are within your reach. Make sure that the work area is well lit. Before handling any sharps, assess the work area for any potential hazards and get help to remove the hazards. Use sharps safety devices to provide protection for you, your patient, and other healthcare workers. Participate in training on how to use sharps and safety devices appropriately.

2. **Be aware!** Always keep the exposed sharp in your view. Stop the sharps procedure if you feel rushed or distracted so that you can maintain focus on the task. Be vigilant of the people in the work area. Avoid passing sharps off to another worker. Use verbal alerts when moving sharps around. Always be on the watch for sharps that may be in linen, beds, on the floor or in non-sharps waste containers.

3. **Dispose of sharps with care!** Always be responsible for the sharps device you use. Know how and when to activate the safety features on the sharps device after use. Dispose of sharps in rigid containers only. Do not overfill the sharps container. Never stick your fingers into a sharps disposal container. Keep your fingers away from the sharps disposal container mouth.

**After a sharps injury:** Seek first aid care immediately. Report the sharps injuries to the hospital supervisor. Be sure to include any hazards that you observed. This may help someone else from being injured.

As Carondelet Health Network moves to become a high reliability organization (HRO), all associates are accountable for their own safety and the safety of others when using sharps. Be prepared! Be aware! Be safe! And be well!

**References**

CDC. (2012). One needle, one syringe, one time only. Retrieved from http://www.oneandonlycampaign.org/

