Bio Basics Fact Sheet: Safe Sharps Handling

Background

Two of the most common causes of needle sticks are re-capping needles and improper disposal of needles. All needle sticks, and other sharps injuries, carry the risk of secondary infections in addition to exposure to the needle's content and/or contamination on the outside of the needle or other sharp instrument.

Needle/syringe usage may also present a risk of exposure to infectious agents or other hazardous materials via sprays and aerosols - particularly from non needle-locking syringes.

Sharps Injury Prevention

Needles and syringes, or other sharp instruments, should be used only when there is no alternative. To prevent sharps injuries:

- Needles must not be bent, sheared, broken, recapped, removed from disposable syringes, or otherwise manipulated before disposal.
- Procedure-specific handling and disposal of sharps must be included in your lab's written Lab Safety Manual or Standard Operating Procedures.
- Do not pick up broken glass with hands, use mechanical means such as a brush and dustpan, tongs, or forceps.
- Perform an annual review your lab's need to use sharps. Is it possible to modify a procedure so sharps are not needed?
- Use syringes which re-sheathe the needle, needleless systems, and other sharps safety devices whenever possible.
- Always request safety engineered sharps from vendors. For example, Mylar wrapped safety hematocrits are available (Hemato-Clad) from vendors such as Fisher.
- Annually review the availability of products engineered to reduce sharps exposure in order to determine if there is an acceptable sharp replacement for specific procedures. See the sharps section of the Biosafety Manual [http://www.dehs.umn.edu/bio_pracprin_su_ss.htm](http://www.dehs.umn.edu/bio_pracprin_su_ss.htm) for safety engineered sharps resources.

Re-use of Needles/Syringes

NOTE: The need to re-use and/or re-cap needles, along with the method employed, must be documented in your laboratory safety manual or standard operating procedures. Biosafety in Microbiological and Biomedical Laboratories (BMBL) does not permit re-capping of needles used for Biosafety Level 2 agents for any reason.

If there is no alternative to re-using a needle/syringe for a specific procedure:

- Avoid re-capping the needle by placing the needle/syringe in a tray or other protective
container for transportation or storage between injections.

If there is no alternative to re-capping the needle:

**First choice should be a re-sheathing needle**, available as:
- **Re-usable, retractable guards** (example: Gettig,
- **Automatic re-sheathing styles** (example: Sterimatic,

Second choice is to use a simple and inexpensive mechanical device to safely hold caps while re-capping.

This device from Medi-Dose sits on a bench top and holds the cap while the syringe/needle is inserted. Twist the needle/syringe to remove from the device.


Finally, if the above re-sheathing or mechanical re-capping devices do not work for an application, the one-handed scoop method may be used. Documentation must demonstrate that the above-mentioned techniques cannot be implemented.

Place the cap on the counter top and "scoop" it up with the needle, keeping your free hand out of the way.

**Sharps Disposal**

See the Infectious Waste Disposal Chart at [http://www.dehs.umn.edu/bio_wastedisptble.htm](http://www.dehs.umn.edu/bio_wastedisptble.htm) for a list of items to be disposed of as sharps and for additional sharps and broken glass disposal information.

- Do not re-cap needles.
- Promptly dispose of all sharps in sharps container.
- Use leak-proof, puncture-resistant sharps containers properly labeled by the supplier.
- Place sharps containers within easy reach of work stations where sharps are generated.
- Never fill containers more than 3/4 full.
- Use a size and shape container that will allow the sharp to freely and completely enter the container.
- Close and seal the top of containers before placing next to regular trash for pick-up by custodians.
- Custodians are trained to pick up sharps containers directly from labs. Do not place sharps containers in hallways or other public areas for pick up.