Needle Recapping & Handling

Standard Operating Procedure

Revision Date: 05-20-22

# Description [Provide additional information as it pertains to your research protocol]

This standard operating procedure (SOP) outlines the methods for the safe recapping of needles and covers the safe handling, practices, disposal, and needlestick reporting requirements pertaining to hypodermic needles, hypodermic needles with syringes, needles with attached tubing, and other needle equipment. It is the responsibility of all laboratory staff to contribute to and comply with these procedures.

## Process [Write the steps for using the chemical in your research protocol]

# Potential Hazards [Provide additional information as it pertains to your research protocol]

Needles present serious health hazards because people can be easily exposed parenterally to hazardous chemicals and infectious biological agents through injection. Recapping needles is extremely dangerous because it can result in the accidental stabbing of hands and other body parts. If working with human blood or other potentially infectious material, ensure that an Exposure Control Plan is completed and available. All applicable work requirements such as SOPs, universal precautions, hepatitis vaccination, etc. are required to be followed.

# Engineering Controls/Workplace Controls [Provide additional information as it pertains to your research protocol]

**NEEDLES SHOULD NOT BE RECAPPED, BENT, REMOVED OR OTHERWISE MANIPULATED BY HAND.**

* However, if it is essential that a needle be recapped due to the nature of the work, the use of a mechanical device or the one-handed scoop method must be used. In addition, there needs to be written justification and instructions for any procedures that involves the recapping of needles (SOP).
* Needles Will Be Recapped:  Yes (if yes, state the justification below)  No
	+ Justification of Recapping Needles. In addition, if either of the two methods below are not used, provide additional instruction (e.g. How to use forceps to recap, etc.): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Needle Recapping Instructions:**

1. **One-Handed Scoop Method**

**Step 1:** Place the cap on the desk or other flat surface with something firm to “push” the needle cap against.

**Step 2:** Holding the syringe with needle attached in one hand, slip the needle into the cap without using the other hand.

**Step 3:** Push the capped needle against a firm object to “seat” the cap onto the needle firmly using only one hand.

1. **Needle Recapping Devices**

These are devices with a hole in the center that hold needle caps and allow for single hand uncapping and recapping.

**Additional Guidelines**

* Keep needles away from fingers and other body parts.
* Place uncapped needles in a rigid tray during procedures and transportation.
* Do not leave unprotected needles on work surfaces.
* Shearing or breaking of contaminated needles is prohibited.
* Use disposable needle locking syringe units and other engineered sharps injury protections, which has a built-in safety feature or mechanism that effectively reduce exposures, and needleless systems whenever possible.
* Use of blunt cannulas or safer needle devices such as: retractable device, needle locking mechanisms, etc. should be used as alternatives to needles wherever possible.
* Needles and syringes should never be used as a substitute for pipettes.
* Used disposable needles and syringes must be placed in conveniently located appropriate sharps disposal containers and discarded as infectious waste.
* Use extreme caution and be alert when handling sharps. Avoid distractions and keep sight of the needle.
* Ensure that animals are restrained when using needles on animals and be on the alert for any unexpected movements.
* The use of needles and syringes should be restricted to procedures for which there is no alternative.
* Refer to the EHS Exposure Control Plan and Biosafety Manual for additional information.

# Personal Protective Equipment [Provide additional information as it pertains to your research protocol]

Wear safety glasses/goggles, double gloves, lab coat/gown, close-toe shoes, and any other applicable PPE when handling needles and syringes.

# Transportation and Storage [Provide additional information as it pertains to your research protocol]

N/A

# Waste Disposal [Provide additional information as it pertains to your research protocol]

Upon completion of a procedure involving use of needle equipment, immediately discard the items, including syringes connected to the needle, tubing, etc., into a clearly and properly labeled or color-coded rigid, closable, leakproof, puncture-resistant, disposable sharps container located in the work area at the point of use. All used needle equipment waste must be discarded as infectious waste and in compliance with EHS requirements. NEVER reach into the sharps container. Never empty the contents into another container. Do not overfill the sharps container.

Because most spent, unused, and expired chemicals/materials are considered hazardous wastes, they must be properly disposed of.  **Do not dispose of chemical wastes by dumping them down a sink, flushing in a toilet or discarding in regular trash containers, unless authorized by Environment, Health & Safety (EHS) Hazardous Materials Management (HMM)**. Contact EHS-HMM at (734) 763-4568 for waste containers, labels, manifests, waste collection and for any questions regarding proper waste disposal. Also, refer to the EHS [Hazardous Waste](http://ehs.umich.edu/haz-waste/) Web page for more information.

# Accidental Needle Stick/Exposures/Unintended Contact [Provide additional information as it pertains to your research protocol]

 ***If the employee is in need of emergency medical attention, call 911 immediately.***

If a needle stick injury should occur, wash the puncture area with soap and water, report the incident to the supervisor and laboratory director, and seek medical attention as soon as possible. **Any needle stick with recombinant DNA and/or an infectious agent must be reported to the U-M Biological Safety Officer (BSO) (763-3133) as soon as possible.** The U-M BSO will determine if institutional notification to Federal Agencies is required within 24 hours per applicable regulations. Failure to report may result in severe penalties to the researcher, laboratory, department or institution.

Report all needle sticks to Work Connections within 24 hours by completing and submitting the [Illness and Injury Report Form](http://oseh.umich.edu/forms/reporting-injuries-and-incidents/). Please include (1) the type and brand of device involved in the incident. (2) The work unit or work area where the exposure incident occurred. (3) An explanation of how the incident occurred. Follow the directions on the Work Connections website [Forms Instructions](http://www.workconnections.umich.edu/forms.html) to obtain proper medical treatment and follow-up.

In addition, as required for all lab incidents, complete the [EHS Laboratory Incident and Near-Miss Report](https://ehs.umich.edu/research-clinical/reporting-incidents/)form.

## Treatment Facilities

**U-M Occupational Health Services -- Campus Employees**Mon-Fri 7:00 am - 4:30 pm, hours may vary.
C380 Med Inn building
1500 East Medical Center Drive, Ann Arbor (734) 764-8021

**University Health Services -- University students (non-life threatening conditions)**
Mon-Fri 8 am - 4:30 pm, Sat 9 am - 12 pm
Contact for current hours, as they may vary
207 Fletcher Street, Ann Arbor (734) 764 - 8320

**UMHS Emergency Department -- after clinic hours or on weekends**
1500 East Medical Center Drive, Ann Arbor (734) 936-6666

**Report all emergencies, suspicious activity, injuries, spills, and fires to the University of Michigan Division of Public Safety and Security (DPSS) by calling 911 or texting 377911. Register with the** [**University of Michigan Emergency Alert System**](http://dpss.umich.edu/emergency-management/alert/) **via Wolverine Access.**

# Emergency Reporting

Report all emergencies, suspicious activity, injuries, spills, and fires to the University of Michigan Police (DPSS) by calling 911 or texting 377911. Register with the [University of Michigan Emergency Alert System](http://dpss.umich.edu/emergency-management/alert/) via Wolverine Access.

# Training of Personnel

All personnel shall read and fully adhere to this SOP when handling needles.

# Certification

I have read and understand the above SOP. I agree to contact my Lab Director if I plan to modify this procedure.

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| Name | Signature | UMID # | Date |
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| Lab Director | Revision Date |

### Major Revisions (Tracking purposes only -- Do not print as part of SOP)

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| --- | --- |
| Date | Revision |
| 03-08-19 | Updated links, general content and format (DML). |
| 05-18-20 | Updated editing rights to headings (RSH) |
| 5-20-22 | Added use of safer sharps alternatives and double glove usage (FTB). |