

SOP for General Laboratory Work with Human Blood

Prepared by Daniel Estes, 08/2007

General notes in working with human blood:

BE CAREFUL! Blood can contain a variety of infectious agents, so proper attention and care must be taken AT ALL TIMES when working with human blood or isolated human blood cells. Do not use sharps (e.g. needles, Pasteur pipettes that can potentially break, or other equipment that can potentially puncture the skin) unless absolutely necessary!

Specific safety precautions

1. Always wear proper hand protection (latex gloves)
2. Wear appropriate protective attire, including eye protection, closed-toe shoes, long pants, and preferably a lab coat
3. Wipe all lab equipment (laminar flow hood and all pipettors) with 70% ethanol prior to use
4. Only work with whole blood in the laminar flow hood to contain potential spills
5. Prior to work, locate emergency equipment including 10% bleach solution (pre-made) and eye-wash
6. After working with blood, wipe all relevant lab surfaces and lab equipment with a solution of 10% bleach (90% water)
7. After taking off gloves, wash hands vigorously with water and disinfecting soap

How to dispose of human blood or blood cells or items contaminated by blood

1. Never put blood-contaminated items into regular trash
2. Sharp items or items that can break (e.g. needles, Pasteur pipettes) must be placed in the sharps container located to the right of the laminar flow hood
3. Put all blood-related items (including gloves used in working with blood) into a biohazard waste pail located under the hood.
4. For any beakers or re-useable lab equipment in contact with blood, add 10% bleach to completely soak the area (or for a beaker, add 3x volume of 10% bleach to whatever blood-related volume was there before). Let soak for 20 minutes. For beakers, wash vigorously with water in the sink before hanging to dry.

What to do if there is a blood emergency

1. In the case of spill, first wear appropriate attire for handling blood. Then, cover the spill area with 10% bleach before wiping up. Let soak for 20 minutes before wiping up. Preferably, put containing materials (e.g. paper towels) into the biohazard waste.
2. If there are any broken or sharp items in the spill, **DO NOT PICK THEM UP BY HAND!** Use a secondary source, such as tongs to remove these sharp objects and place into the sharps waste.
3. If blood gets on skin – first wash vigorously with disinfectant soap and water. Remove contaminated clothes. Next contact supervisor (Michael Mayer, mimayer@umich.edu, W:

██████████, M: ██████████). Seek follow-up medical attention at Mworks Clinic 734-998-8788

4. If skin penetrated by a sharps contaminated with blood – first, wash vigorously with disinfectant soap and water. Remove contaminated clothes. Next contact supervisor (Michael Mayer, mimayer@umich.edu, W: ██████████, M: ██████████). Seek follow-up medical attention at Mworks Clinic 734-998-8788. Follow up attention may include vaccinations for Hepatitis B, as well as tests for other blood-borne pathogens.