Safe Work Practice

Needle Safety in Animal Projects

1.0 Hazard Description

The use of needles in any project introduces the risk of needle stick injuries for personnel and the use of needles with live animal models increases that risk. If the use of needles is required in an animal use protocol (AUP), their use and the materials being administered with them must be considered by the Principal Investigator (PI) as part of the Hazard Assessment of the relevant laboratories activities as per the Animal Research, Teaching and Testing Projects Safe Work Practice (EHS-SWP-101).

2.0 Minimum Hazard Controls

In addition to the minimum requirements listed in the Animal Research, Teaching and Testing Projects SWP, PIs working with needles must abide by the following:

2.1 Elimination/Substitution

1. Safety-engineered needles should be used for injections involving biological, chemical or radiological hazards.

2.2 Engineering Controls

1. Animals being injected with a biological, chemical or radiological hazard must be:
   a. Restrained in a device that keeps the worker’s hands clear of the injection site, or,
   b. Anesthetized to prevent struggling.
2. Used needles must be discarded into a commercially available, leak-proof, puncture-resistant container with a fitted lid that is specifically designed for sharps waste. Note, used bleach containers are not puncture-resistant and are unacceptable as waste containers for needles.

2.3 Administrative Controls

1. Needle-syringe assemblies should be prepared in the same room where injections are to occur whenever possible. If loaded needle-syringe assemblies must be prepared elsewhere, the needle is to be re-capped by holding the cap in a pair of large forceps; the needle cap is never to be held in the worker’s hand. This is the only instance where re-capping of needles is permitted.
2. Loaded syringes and needle assemblies must be transported in a sealed, hard-walled secondary container.
3. Workers must keep needles pointed away from other personnel at all times.
4. Used needle-syringe assemblies must be discarded into the sharps waste container provided.
   - No attempt shall be made to clip, shear, or re-cap the needle or to remove the needle from the syringe.
   - Needle-syringe assemblies must never be discarded into the regular waste stream.
5. Sharps containers ready for disposal (approximately 75% full) must be picked up through the University’s CHEMATIX system for incineration. Sharps containers must not be over-filled and should be kept sealed in a secure location until CHEMATIX pickup can be arranged.
6. Upon completion of the injection procedure, all work surfaces must be wiped down with an appropriate decontaminant or cleaning solution as determined by the Hazard Assessment.

2.4 Personal Protective Equipment (PPE)
1. The feasibility of puncture resistant gloves should be considered as an addition to the PPE requirements identified in the Environment, Health and Safety (EHS) Laboratory Personal Protective Equipment Requirements document and the Allergen Protection in Animal Projects SWP (EHS-SWP-110).

3.0 Emergency Preparedness/Response
1. In the event a worker receives a needlestick injury, personnel are to initiate first aid as determined by the Hazard Assessment.
2. All needlestick incidents, no matter how slight they may appear, must be reported within 24 hours of occurrence to EHS via the Incident Portal. In the Incident Report, include details on:
   a. The material in the needle and whether or not the needle’s syringe was depressed during the puncture incident, and,
   b. The health status of the animal (i.e., whether it was an infected animal model in use).

4.0 Applicable Legislation and Regulations
1. Canadian Biosafety Standard, Public Health Agency of Canada
5.0 Related Resources

1. Laboratory Personal Protective Equipment Requirements, Environment, Health and Safety, University of Alberta
2. Safe Work Practice: How to Use Animal Safe Work Practices (EHS-SWP-100), Environment, Health & Safety, University of Alberta
4. Safe Work Practice: Allergen Protection in Animal Projects (EHS-SWP-110), Environment, Health and Safety, University of Alberta

6.0 Document Management

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