

Tuesday May 27th, 2008

Protocol Assessment Liaison BULLETIN

This Educational Information has been brought to you by Traci Clemons, in the Protocol Facilitation Program for the Vice Chancellor for Research, and in cooperation with the UNMC Institutional Animal Care and Use Committee, and Comparative Medicine.

For additional information please contact:

Traci Clemons; tclemons@unmc.edu or Extension 98560

*Recently the UNMC IACUC conducted Semi-Annual Inspections of laboratories where animal procedures are conducted. During these inspections there were several areas that were found to warrant some continuing education. Please review the following items with your staff:

1. Expired Drugs

Animal Welfare Regulations, including USDA Animal Care Policy #3 addresses the issue of outdated drugs, i.e., "The use of expired medical materials such as drugs, fluids, or sutures on regulated animals is not considered to be acceptable veterinary practice and does not constitute adequate veterinary care as required by the regulations promulgated under the Animal Welfare Act."

- a. The use of expired drugs should not be used on any research animal that is un-anesthetized or is to recover from an anesthetic procedure.
 1. If there is a need to use expired materials or drugs other than analgesics and anesthetics the PI must acquire formal approval by submitting the form "REQUEST TO USE EXPIRED MEDICAL MATERIALS OR DEVICES IN SURVIVAL AND ACUTE TERMINAL PROCEDURES IN ANIMALS USED IN RESEARCH, TEACHING OR INSTRUCTION" found on the website.
http://www.unmc.edu/dept/iacuc/index.cfm?L1_ID=6&CONREF=6
- b. Cocktails are combinations of two or more drugs.
 1. Labeling cocktails with all drugs that have been combined in a secondary container is required.
 2. Expiration date of the drug or diluents that expire first must be written on the secondary container, and any unused portion of

Tuesday May 27th, 2008

the cocktail must be disposed of by this date. *(This includes the expiration date of sterile water or saline if used as diluents.)*

2. Controlled Drug Storage and Documentation

-The United States Code Controlled Substances Act, Title 21, CFR section 1301.71(a), requires that all registrants provide effective controls and procedures to guard against theft and diversion of controlled substances. The DEA regulates the use of these drugs by performing unannounced inspections of facilities that use controlled drugs. The UNMC IACUC Semi-Annual Inspection, and unannounced inspections performed by UNMC staff help to ensure that UNMC adheres to Federal Regulations by following DEA Guidelines.

a. Controlled Drugs Require a DEA license in order to purchase, and MUST BE STORED under DOUBLE LOCK and KEY.

b. Upon receipt of each controlled drug the following information should be recorded into a notebook or log book;

Drug Name / Date Received / Amount Received / Lot Number / Expiration Date.

c. Each time the drug is administered to an animal the following information must be recorded;

*Date / Initials / Reason for use (i.e. Species/Strain, Protocol #) / Amount Used
Amount Remaining / Bottle #.*

d. Any time a controlled drug is spilled or disposed of due to expiration date the following information must be recorded;

*Date / Initials / Reason (i.e. Discarding due to Expiration or Spill)
Amount Discarded / Amount Remaining-Bottle #*

3. Rodent Anesthesia Using Open-Drop Exposure to Isoflurane

Direct contact to skin can cause irritation to the rodent, therefore a method of separating the animal with a physical barrier is required.

a. Special Consideration-The Open Drop System. The open drop system is the most basic type of anesthetic delivery system. It involves the application of the anesthetic gas to an absorbent material that is then placed in the bottom of an anesthetic chamber or nose cone device. The advantage of this system includes low cost of equipment and minimal rebreathing to expired gases by the patient. The disadvantages include personnel exposure due to difficulty in scavenging waste gas and patient

Tuesday May 27th, 2008

concerns due to difficulty in controlling anesthetic concentration and risk of mucus membrane/skin irritation due to contact with the liquid. To minimize the risks, the following must be implemented:

1. A vented chemical fume hood or vented biosafety cabinet must be used during the procedure. The anesthetic must be added to the absorbent material only inside the hood.
2. A chamber with a tight-fitting cover must be used. The cover must stay on the chamber except when the animals is being placed into or removed from the chamber.
3. Prior to placement into a jar, a barrier such as a mesh grid must be placed into the jar to prevent local skin and eye irritation of the animal by direct contact with the liquid anesthetic.

4. Recapped Needles

Recapped needles were found in the “sharps” containers in several laboratories. Recapping needles is hazardous to personnel and is not an approved method of needle disposal.

See Infection Control Policy @

<http://webmedia.unmc.edu/infectionk/pdf/animalresearchlabs.pdf>

- a. Place a Label (“**DO NOT RE-CAP NEEDLES**”) on each “sharps” container in your laboratory.
- b. **Discard “sharps”** in accordance with UNMC Waste Handling and Disposal policy and procedure, Safety #18;
DO NOT RECAP NEEDLES

5. Secured Gas Cylinders

- a. **ALL** compressed gas cylinders **MUST** be secured from falling at ALL times.
- b. Use a chain or other substantial restraint devices whether or not the cylinders are in storage or in use.

6. Waste Gas Scavenging System

Waste anesthetic gases must be scavenged and equipment must be maintained in good working order to ensure a safe working environment. There are various acceptable methods of scavenging waste gases:

Tuesday May 27th, 2008

a. Dedicated Exhaust System. An exhaust system such as a central vacuum system provides a source of negative pressure to remove the waste anesthetic gases. This is the preferred system of scavenging waste anesthetic gases.

b. F-Air Canisters. Canisters containing activated charcoal can be used to absorb waste gas. These canisters are not effective for capture of nitrous oxide. The canister must be weighed PRIOR to its initial use and again at each use thereafter. The canister must be discarded when there is a 50 gm increase in the initial weight.

c. Fume Hoods: A vented chemical fume hood or vented biosafety cabinet may be used to capture waste gases. The fume hood must be certified Bal-Con (or any authorized contractor) every 12 months. Contact Comparative Medicine for additional information on the certification process.

FYI

****ALWAYS VISIT THE IACUC WEBSITE FOR THE MOST CURRENT FORMS FOR NEW APPLICATIONS, CONTINUING REVIEW, AND CHANGES.**

[Forms](#)

NEW THIS MONTH:

IACUC APPLICATION FOR FACULTY BREEDING COLONY

Revision: 6/2008

You should download and complete this form to request approval for the establishment of a breeding colony if:

**You are a faculty member at UNMC or UNO*

**This is a new project*

**You propose to establish a breeding colony for the purpose of breeding unique animals that can not be purchased commercially*

**You plan on transferring these animals to an IACUC approved research protocol*

**The breeding colony will not be managed by a student*