

## **Proper Preparation, Usage and Storage of Drugs and Medical Materials**

The Animal Welfare Act and the Guide for the Care and Use of Laboratory Animals require that research animals be provided with adequate veterinary care. The administration of expired medical materials, nonpharmaceutical grade chemical compounds and/or their improper storage is considered inadequate veterinary care. In addition, these management problems constitute a violation of the policies of the University of Rochester, University's Assurance with the Public Health Service (PHS) and United States Department of Agriculture (USDA) regulations.

Medical materials intended for administration to animals such as drugs, fluids and sutures must be used within their shelf life, regardless of whether the animals are used in survival or nonsurvival procedures. Drug inventories should be routinely monitored for expiration and any outdated materials must be immediately discarded. In special circumstances in which drugs cannot be disposed of immediately, they must be labeled "expired" and segregated from other materials until proper disposition is possible. Containers of parenteral fluids (e.g. lactated ringers, saline) that are injected into animals should have the date of first use written on them. Fluids that contain sugar (e.g. glucose, dextrose) should be discarded 12 hours after they are opened because of their ability to support microbial life if contaminated. All other fluids should be discarded 14 days after their first use.

Pharmaceutical-grade chemical compounds, if available, must be used for all vertebrate species. In the event that a non-pharmaceutical-grade chemical compound has to be used due to (1) scientific necessity and/or (2) nonavailability of a veterinary or human pharmaceutical-grade compound, specific review and approval by UCAR is required. Once approval is granted, every attempt must be made to ensure the purity (e.g. micropore filtration), potency and stability of non-pharmaceutical-grade chemical compounds.

Drugs and fluids must be stored in ways that will not affect their efficacy upon administration to animals. Improper storage of such materials includes the following: 1) storage in a dirty environment, e.g. permanent placement of a hypodermic needle in the top of a multi-dose vial 2) storage in an unsuitable environment, e.g. maintaining drugs intended for refrigeration at room temperature or not storing light sensitive drugs in amber or covered bottles 3) storage of drugs in unlabeled containers or syringes and 4) unsecured storage of controlled substances.

Throughout the year, the University of Rochester is subject to unannounced inspections by two important governing agencies. USDA and New York State inspectors visit animal housing areas, procedure rooms, surgical facilities and laboratories where animals are taken for research. If improperly prepared or stored drugs, or expired medical materials are identified, the institution may be cited for veterinary deficiencies.

This policy should be discussed with all laboratory personnel. It is the Principal Investigator's responsibility to establish laboratory procedures that ensure that medical materials intended for administration in animals are used appropriately. If you have any questions regarding this policy, please contact the UCAR office at X5-1693.