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IG008: EXPIRED MEDICAL MATERIALS

Expired drugs and medical materials, including euthanasia agents, have unknown purity, potency, stability, and efficacy. Therefore, their use in live animals is not consistent with adequate veterinary care.

It is NEVER acceptable to use expired anesthetics, analgesics or euthanasia drugs in an animal, regardless of whether the procedure will be survival or terminal.

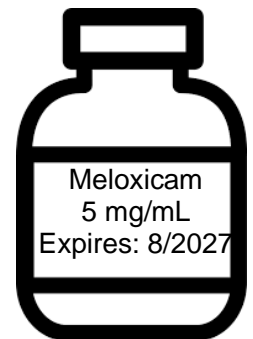
It is the responsibility of the Principal Investigator (PI) to institute adequate inventory and laboratory management procedures to ensure that expired drugs and medical materials are identified and properly disposed of in a timely fashion. All expired medical materials must be stored in a location separate from non-expired medical materials and labeled “For use in terminal procedures only”.

Expiration Date:

This is the manufacturer’s date printed on the label/package for materials. For dilutions, preparations, reconstitutions or mixtures of drugs or fluids prepared using sterile technique and under proper storage conditions, **an expiration date of six (6) months from the date of preparation, or the earliest expiration date for any single component (if < 6 mths)**, is recommended unless otherwise scientifically justified in the animal protocol.

Such materials should be labeled by name, drug concentration, and include the expiration date as soon as they are prepared (see example on the right). An item is considered expired the day *after* the month or date indicated on the label.

(Example: Item labeled Aug. 2027 would be considered expired on Sept. 1, 2027.)



Proper anesthesia and euthanasia are required for all surgical procedures.

- **Survival Surgery:** It is unacceptable per veterinary practice standards to use expired medical materials (e.g., drugs, fluids, sutures, anesthetics, sedatives, or analgesics) during any survival surgical procedure.
- **Non-Survival Surgery:** Expired medical **materials** may be used in nonsurvival procedures when an animal is anesthetized during the study and euthanized without recovery. The terminal procedure cannot adversely affect the animal’s well-being or compromise scientific validity. **Liquids, solutions, or drugs (e.g. analgesics, sedatives, anesthetics, or euthanasia solutions) CANNOT be used in non-survival surgery.**

Proper Disposal of Expired Drugs:

Whether hazardous or non-hazardous, all expired or unwanted drugs are to be disposed of properly according to MSU Environmental Health & Safety (EHS) guidelines. Guidance for specific types of waste can be found at [MSU Environmental Health & Safety - Waste](#). For additional questions, please contact EHS at 517-355-0153 (or, ehs.msu.edu)

References

- Federation of Animal Science Societies. *Guide for the Care and Use of Agricultural Animals in Research and Teaching*. 4th ed. Champaign, IL: Federation of Animal Science Societies, 2020.
- Green CJ, et. al. “Animal Anesthesia.” London: Laboratory Animals Ltd, 1979. p79.
- National Research Council. *Guide for the Care and Use of Laboratory Animals*. 8th Ed. Washington, DC: National Academies Press, 2011.
- Public Health Service Policy on the Humane Care and Use of Laboratory Animals, Section IV., OLA
- USDA APHIS Animal Care. *Animal Welfare Act and Animal Welfare Regulations*. 2008.
- Taylor, et. al. “Beyond-use dating of extemporaneously compounded ketamine, acepromazine, and xylazine: safety, stability, and efficacy over time.” *JAALAS*. 2009 48(6): 718-726.