



Expiration Date and Sterility Requirements for Procedures Involving Animals

Substances Administered to Animals

Expiration Date Policy (Substances):

Expired anesthesia, analgesia, euthanasia agents, and emergency drugs must not be administered to animals at any time. Expired anesthesia, analgesics, euthanasia agents, or emergency drugs must be appropriately disposed of or labeled “expired” and physically segregated from in-date materials until pick-up for disposal.

Substances to be administered to animals must be clearly labeled with the expiration date, substance name, and concentration. When multiple drugs (e.g. ketamine/xylazine) are mixed, the earliest expiration date is used for the working stock label. This practice ensures substances administered to animals are not used past their expiration dates.

Food, treats, and special diets must be in date and must not be administered to animals after the expiration date. Secondary food containers must be labeled with the contents and the mill date or expiration date. Items may require special storage (refrigeration, freezer) to maintain the nutritional content or prolong shelf life. Consult the manufacturer for appropriate storage and expiration dates.

The following conditions must be met for expired items such as other drugs (contrast media, diuretics, etc.) or fluids (saline, electrolyte solutions, etc.) to be used in animals:

- Acute, non-survival procedures only
- Expired items are appropriately labeled “expired – acute use only” or “acute use only”
- Use of expired materials does not adversely affect the animal’s well-being or compromise the validity of the scientific study.

Sterility and Preparation Policy (Substances):

Substances administered to animals (e.g. experimental substances, drugs, aliquots, dilutions, etc) must be sterile and physiologically compatible unless an exception is justified and approved in the IACUC protocol. Sterility requirements apply to parenteral administration methods (subcutaneous, intraperitoneal, intravenous, intradermal, or intramuscular). Oral and dietary administrations are exempt from sterility requirements.

Containers used to prepare cocktails, dilutions, or aliquot substances must be sterile and must match the original packaging (ie. provide sufficient UV protection or non-reactive material). Substances may arrive sterile from the manufacturer, be prepared aseptically from sterile

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components, be filter sterilized using a 0.22 micron filter, or by using another acceptable sterilization method.

Guidelines for determining expiration dates (substances):

1. Drugs altered from the manufacturer's original formulation may lose potency or degrade due to a change in pH, buffering, or precipitation. Follow the manufacturer's instructions for altered working stocks. If specific information is not provided by the manufacturer, best practice is to use within 30-60 days from preparation.
2. After puncture, IV fluids expire after 24 hours when stored at room temperature or at 7 days when refrigerated. Open or punctured fluid bags should always be marked with a first puncture date and stored appropriately. IV fluids not intended for use in animals should be labeled "not for animal use" to prevent unintended administration of non-sterile or expired fluids to animals.
3. Food is considered expired six months after the mill date printed on the original container or by the expiration date supplied by the manufacturer.
4. All expired items should be discarded or disposed of in accordance with any and all applicable WashU policies. Contact EH&S (chemicals, drugs), the DCM stockroom (controlled substances), or IBC (infectious materials) for more information.

Materials Used in Animal Procedures

Expiration Date and Sterility Policy (Materials):

Materials used in survival surgeries must be sterile and used prior to the expiration date.

Examples of materials covered by this policy include instruments, sutures, catheters, probes, and implants. Instruments, supplies, and packs sterilized by the investigator or DCM must be labeled with the sterilization date and must include both an external process indicator (e.g., autoclave or ethylene oxide tape) and a sterilization indicator (chemical indicator or piece of indicator tape) within the package. Sterile packages (packs, instruments, devices, sutures, etc.) must be stored in a manner to protect materials from moisture or damage.

The following conditions must be met for expired materials (sutures, gloves, catheters, etc.) to be used in animals:

- Acute, non-survival procedures only
- Expired items are appropriately labeled "expired – acute use only" or "acute use only"
- Use of expired materials does not adversely affect the animal's well-being or compromise the validity of the scientific study.

Guidelines for determining sterility and expiration dates (Materials):

1. Materials that are in the original manufacturer's sterile packaging (catheters, wires, gloves, and instruments) will be considered sterile until an event occurs that compromises the integrity of the package or it has reached the manufacturer expiration date printed on the packaging.

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2. The shelf-life of sterilized items that are stored in a closed cabinet and properly wrapped in either “Seal and Peel” packaging or paper or cloth drape material is one (1) year. Packs sterilized by DCM or the researcher expire one year from the sterilization date printed on the packaging.
3. See the Sterilants and Disinfectant Policy for additional methods to sterilize materials prior to use.

General Guidelines (Substances and Materials):

Storage and Inspection

1. Physical segregation of expired and in-date materials can be achieved by storing items in separate drawers, cabinets, or different secondary containers like boxes or bins.
2. Lab inventories should be inspected regularly to identify and remove damaged or expired items.
3. Drugs and sterile materials (instruments, packs, devices, supplies, etc.) should be inspected immediately prior to use to confirm drugs remain in date and sterile packaging is undamaged to ensure sterility.
4. IACUC semiannual inspectors will remove, discard, or label expired drugs and materials at the time of discovery if they are identified during a facility inspection.