

Procedure: IACUC-48  
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**UC Davis  
Institutional Animal Care and Use Committee (IACUC)**

**Title: *Fluid Bag Shelf Life and Use Policy***

**I. Purpose:**

The purpose of this document is to define the policy regarding the expiration date and standards of use of physiologic fluids for parenteral administration. For information regarding single use vials and dilutions, please see [IACUC Policy-53 "Guidelines for Use of Anesthetic Cocktails and Diluted Drugs in Laboratory Animals"](#).

**II. Background:**

"Fluid Bag" is defined here as medical-grade physiologic fluids such as Lactated Ringers Solution, 0.9% Sodium Chloride, or similar, without dextrose or additives, in their original plastic bag. A bag has two ports for withdrawing solution; a rubber injection port that is penetrated by a hypodermic needle, and a plastic seal that is broken by the sharp end of a fluid administration set. For repeated use of fluids with dextrose or additives, please email [cvsvet@ucdavis.edu](mailto:cvsvet@ucdavis.edu) for guidelines.

**III. Policy:**

Fluids must be discarded after the expiration date imprinted on the bag or container, even if the fluid has never been used.

The following guidelines must be followed when fluid bags are used:

- A. Once the fluid bag has been penetrated by a needle or administration set, the date of first use must be written on the bag. It is safe to write directly on the bag with a Sharpie, or a dated label may be adhered to the bag.
- B. After the first 24 hours, solution withdrawn from the bag may be administered to animals by the subcutaneous, intramuscular or topical routes **only**.
- C. For repeated use of the rubber injection port:
  1. The injection port must be wiped with isopropyl alcohol before each withdrawal.
  2. A new sterile needle and syringe must be used for each withdrawal of solution.
  3. If a bag has been used only for solution withdrawal through the rubber injection port, the port has been disinfected, and a sterile needle and syringe used for each

withdrawal, and the bag has not been attached to a fluid administration set, it must be discarded 30 days after the date of first use.

D. For repeated use of a fluid bag with a fluid administration set attached:

1. A new sterile needle must be used for each animal.
2. Preferably, a new sterile administration line or extension set (if used) may be used for each animal.
3. If a bag is attached to a fluid administration set, it must be discarded seven days after the date of first use (as documented on the bag).
4. If a stopcock is attached to a bag via a needle, the bag must also be discarded after seven days.

**IV. Resources:**

1. Langston, James Daniel, William Patrick Monaghan, and Mellissa Bush. "The contamination of intravenous fluids by writing on the infusion bag: Fact or fiction?" *International Journal of Advanced Nursing Studies* 3.1 (2014): 18-19.
2. Matthews, Kristin A., and Douglas K. Taylor. "Assessment of Sterility in Fluid Bags Maintained for Chronic Use." *Journal of the American Association for Laboratory Animal Science: JAALAS* 50.5 (2011): 708.
3. IACUC Policy-53 "Guidelines for Use of Anesthetic Cocktails and Diluted Drugs in Laboratory Animals"  
<https://research.ucdavis.edu/wp-content/uploads/IACUC-53.pdf>