Post-operative Care Guidelines

Post-operative monitoring and care can be divided into two phases. Phase one (I) includes recovery from anesthesia, when the animal should be observed no less than every fifteen minutes. The animal should not be returned to his home cage until in sternal recumbency. During Phase two (II), the animal has been returned to, and is monitored in, the home cage.

**Phase I**

1) Provide the animal a quiet, warm place to recover until fully ambulatory.  
2) Do not supply bowls of food or water until the animal is fully ambulatory.  
3) If an endotracheal tube was used, extubate the animal when swallowing reflexes return.  
4) Place most species in lateral recumbency (ruminants should be propped up in sternal recumbency).  
5) Rotate the body every fifteen minutes to avoid atelectasis.  
6) Maintain records: fluids, analgesia, any treatments, and animal’s behavior. Rodent records may be kept in “batch” form, but individual records must be kept for USDA covered species.  
7) When applicable, give whole blood or plasma if PCV is < 20%.  
8) Check physiological parameters (heart rate, temperature, capillary refill etc.) and record in individual large animal records.  
9) All procedures deemed painful by the IACUC require post-operative analgesia, unless the IACUC has approved a scientific justification that explains why you can’t administer analgesia. If you have questions concerning the type of analgesic needed or when to administer it, contact one of DLAM’s veterinarians at 966-3111.

**Phase II**

Phase II starts after the animal is in sternal recumbency and has been returned to the home cage. Monitoring at this point depends on the surgical procedure (eg: how invasive was the procedure?). The following items should be considered:

1) Check the animal several times a day if the procedure was invasive. Pay close attention to the animal’s behavior, e.g. food/water intake, amount of urination and defecation. Any abnormal behavior or physiological changes should be reported to the DLAM veterinary technical staff at 966-2906.  
2) Check the incision site daily (look for swelling, infection and dehiscence).
3) Note the animal’s hydration. This can be achieved by pinching the skin. Skin that remains tented or is slow to return to rest indicates dehydration. Warm fluids should be given if the animal is dehydrated.

4) If the animal does not seem to be recovering as expected, report this to Veterinary Services, 966-2906.

5) Remove sutures, staples or wound clips 7 to 14 days post-surgery.

The USDA and PHS policies require proper documentation of animal care and use to assess compliance with research protocols and clinical care procedures. **Dates of all observations, treatments, and procedures must be recorded. Dates and times (including AM/PM) of all time-sensitive observations or treatments (post-operative evaluations, pain medication) must be recorded.** Extent of records vary based on the nature of the procedure; however, at a minimum, records of the procedure must consist of: Animal ID, date of procedure, type of procedure, anesthetics/analgesics used (dose, route, time), anesthesia chart (vital signs – e.g. pulse rate, heart rate), drugs given (dose, time), general procedures (e.g. intubation, beginning and end of surgery, etc.). Any deviations from the procedure as approved in the protocol due to emergency need must be documented, explained, and reported to the Office of Animal Care and Use. **All records must be available for review at any time by IACUC and external regulatory officials.**

**References:**

IACUC Survival Surgery, Rodents SOP: [Click HERE](#)

Guide for the Care and Use of Laboratory Animals

Disclaimer: if your experimental procedure requires a significant deviation to this Standard Operating Procedure (SOP), please amend your application(s) to include Addendum 8.0 Request for Exception to Policy and indicate the following: a description of the exception; the rationale (provide scientific justification and/or justification based on animal welfare); the potential adverse effects/clinical signs resulting from the exception; and specify which (and the total number of) animals in the approved protocol that will be affected. The IACUC will review your request at the next monthly meeting.