

University of Notre Dame
Institutional Animal Care and Use Committee
Guidelines for Post-Anesthetic Care and Monitoring of Rodents

Introduction

Anesthesia is a physiologically significant event for an animal and proper care must be provided during and after anesthesia. While existing guidelines cover post-operative care of animals, this guideline recognizes that some animals are used in procedures which involve anesthesia but not surgery. This document establishes guidelines for the post-anesthetic care and monitoring.

The IACUC protocol should carefully detail:

- A. The persons conducting the post-anesthetic care and monitoring.
- B. How frequently the animal will be checked and at what point monitoring will be discontinued.
- C. Specific methods to be used for care (e.g., fluids to be given, route, volumes; method for providing supplemental heat). In this regard, the guidelines below can be used.

Guidelines

1. Animals should be closely monitored, generally every 10-15 minutes until ambulatory. Animals should be evaluated for respiratory rate and depth; vascular perfusion as judged by the color of the tongue, ears, nail beds and/or tail; and body warmth as judged by touch. If animals experience difficulty or do not otherwise recover normally, a member of the FLSC veterinary staff should be notified immediately.
2. Supplemental fluids should be given to account for lack of fluid intake during anesthesia and loss of fluid by evaporation. Fluids can be given at 0.3 ml per site (total volume not to exceed 1.0 ml) for a mouse and 1.0 ml per site (total volume not to exceed 6.0 ml) for a rat given SC are considered useful, though these volumes will vary with length of anesthesia and whether blood has been sampled as part of the procedure.
3. Animals should be provided with supplemental heat. This generally entails placing the animal in a cage containing clean bedding, with the cage placed on top of a heating pad (on the "low" setting) or below a luminous heat source. In the former, an area of the cage should be located off the heating pad so that animals can escape the heat if they wish; in the case of the latter, the heat source should be located at least 12 inches from the animal.
4. The administration of fluids or pharmaceuticals should be recorded either on a Surgery/Anesthesia Form, in the laboratory notebook, or on the cage card for animals used for mosquito feeding; likewise, the outcome of anesthesia (e.g., normal recovery, or poor recovery resulting in euthanasia) should be recorded.