

UBC ANIMAL CARE COMMITTEE POLICY 025

Policy on Anesthesia of Rodents

Date submitted: April 30 2018

Date Approved April 30, 2018

Version: 001

1. PURPOSE:

This policy details the minimum standards required when anesthetizing laboratory rodent species. This policy will apply to any procedure, surgical or non-surgical, with or without recovery, that may be painful, or non-painful that requires immobilization and/or unconsciousness. Specific provisions for anesthesia prior to a secondary method for the purpose of euthanasia are noted.

2. SCOPE:

This policy applies to all animals housed in The University of British Columbia (UBC) animal facilities, and affiliated research institutes, centres and hospitals that fall under the review of The University of British Columbia's Animal Care Committee ("UBC animal facilities").

3. DEFINITIONS:

General Anesthesia: Loss of consciousness in addition to loss of sensation; this includes hypnosis, hyporeflexia, analgesia, and muscle relaxation; can be produced using a single drug (i.e. Isoflurane) or a combination of drugs (i.e. Ketamine and Xylazine).

4. POLICY STATEMENTS:

1. An appropriate anesthetic regimen must be approved by the UBC Animal Care Committee (ACC) prior to the commencement of any study.
2. All rodent procedures involving general anesthesia must be performed within an appropriate animal space as approved in a UBC ACC Protocol.
3. Multiple animals must not be induced together if individual animals cannot be monitored effectively.
4. The route and dosage of anesthesia must be appropriate to the procedure being performed to ensure adequate anesthesia throughout the procedure.
5. Rodents must be monitored and attended to throughout the duration of procedure and anesthetic recovery. They cannot be left unattended until fully recovered.

6. Rodents must be recovered from anesthesia in a quiet area away from the anesthetic area.
7. Rodents recovering from anesthesia must not be mixed with conscious animals until they are fully alert and mobile.
8. Rodents recovering from anesthesia must be placed onto an absorbable substrate (such as paper towel), not back onto bedding, until they are fully alert and mobile.
9. Post-procedural monitoring (e.g. a written record of the procedures, including anesthetic details (type, dosage, route)) is required as per UBC ACC Policy 17, and the approved ACC protocol.

5. RESPONSIBILITY:

Prior to undertaking ANY procedure involving anesthesia, it is the responsibility of the Principal Investigator (PI) to ensure that staff carrying out those procedures are adequately trained.

6. REFERENCES:

1. CCAC www.ccac.ca
 - a. Guidelines on Husbandry of Animal in Science, 2017.
 - b. Training module on Anesthesia: <https://www.ccac.ca/en/training/modules/animals-housed-in-vivaria-stream/anesthesia.html>
2. UBC ACC Policies (<https://animalcare.ubc.ca/animal-care-committee/policies-and-guidelines>)
 - a. UBC ACC Policy 017 Monitoring of Animals Used for Research, Teaching & Testing
 - b. UBC ACC Policy 016 Survival Surgery of Rodents
 - c. UBC ACC Policy 018 Rodent Euthanasia
3. UBC SOPs & Guidelines (<https://animalcare.ubc.ca/planning-your-research/sops-guidelines>)
 - a. SOP ACC-01-2017 Rodent Anesthesia
 - b. SOP ACC-03-2012 Euthanasia of Adult Rodents using Inhalant Anesthetic, followed by Carbon Dioxide
 - c. Rodent Anesthesia and Analgesia Formulary and General Drug Information (2016)
4. UBC ACC:
 - a. <https://animalcare.ubc.ca/conducting-your-research/rodent-anesthesia-and-analgesia>
 - b. <https://animalcare.ubc.ca/conducting-your-research/rodent-anesthesia-and-analgesia/species-specific-considerations>