

# **Institutional Animal Care and Use Committee**

**Standard Operating Procedures** 

# **Title: Pre and Post-Operative Care for Research Animals**

<b>Effective Date:</b>	December 22, 2020	Document Number:	IACUC-SOP-02- 26.00	
Approval/Date:				
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REVISION HISTORY				
Date	Sec	ction	Author	

#### **PURPOSE**

Appropriate and documented Pre- and Post-Operative care must be provided to all research animals undergoing anesthetic and surgical procedures to ensure the humane use and welfare of the animal. The guidelines in this procedure should be followed by all personnel involved in the care and use of animals undergoing procedures at UNT.

#### **SCOPE**

It is the responsibility of the Principal Investigator to ensure personnel have appropriate and documented training for performing and documenting appropriate pre-and post-operative care of the species.

It is the responsibility of the PI to ensure that pre- and post-operative care is provided and documented appropriately to all animals under their approved Animal Use Protocol.

It is the responsibility of the PI and lab personnel to report and document any unanticipated or adverse events that occur during pre- and post-operative procedures. It is the responsibility of the IACUC to assure that investigators and staff are following this SOP.

#### **DEFINITIONS AND ABBREVIATIONS**

UNT- University of North Texas, Denton IACUC- Institutional Animal Care and Use Committee SOP/SOP's- Standard Operating Procedure(s) AUP- Animal Use Protocol PI- Principal Investigator

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#### **PROCEDURES**

- **I.** Pre-Operative Care Guidelines
  - **A.** Prior to any anesthetic and/or surgical procedure animals should be evaluated and deemed appropriate to undergo procedures as described in the approved AUP.
    - 1. Overall health should be evaluated and documented to include vital parameters.
    - 2. Any related fasting procedures or pre-medications or treatments should be documented.
  - **B.** Supplies and equipment should be prepared prior to any planned procedures.
    - 1. Calculations for drugs (including emergency use drugs as applicable) should be documented using a recent animal weight.
    - 2. All necessary drugs should be located and in-house in the appropriate amounts needed.
    - 3. All anesthetic and surgical equipment should be evaluated/tested to be in working order.
    - 4. All anesthetic and surgical supplies should be appropriately sterilized, prepared and ready for use.
    - 5. If an animal is medicated and or anesthetized for a procedure and must be recovered without completing the procedure due to a lack of the above or an equipment malfunction, a complete report should be submitted to the IACUC and Attending Veterinarian as an Unanticipated Adverse Event. (See IACUC Procedure 02-13 Reporting an Unanticipated or Adverse Event)
    - 6. Surgical sites should be appropriately prepared for surgery (See IACUC Procedure 02-25 Surgical Procedures and Asepsis Requirements)

## II. Post-Operative Care Guidelines

- **A.** Following any anesthetic and/or surgical procedure, all animals should receive appropriate care in a clean and dry environment to be monitored as they recover, and at appropriate intervals thereafter to monitor and address any signs of pain or distress.
  - 1. Post-operative care should be documented and should include assessments of the animals pain and distress as well as any Post-Operative medications and interventions given.
  - 2. Animals should be continually monitored until they have recovered from anesthesia and are responsive to touch and manipulation, have regained a righting reflex and are ambulatory. Attention should be given to:
    - a) Thermoregulation. Animals may require supplemental heat sources to maintain appropriate temperatures for recovery until they are able to thermoregulate on their own.
    - b) Cardiovascular and Respiration functions. Animals may require supplemental oxygen and fluid support until they are able to regain normal cardiovascular and respiratory functions.
    - c) Fish and amphibians should be transferred to a clean tank and monitored until swimming and righting mobility have been regained.
  - 3. Incisions and surgical sites should be evaluated for signs of heat, swelling, redness, pain, and discharge and should be documented daily until they are healed.
    - a) At least 4 days for Non-USDA regulated species
    - b) At least 7 days for USDA regulated species
  - 4. Appetite, water consumption, general body condition, attitude, and mobility should be evaluated daily and documented.
    - a) At least 4 days for Non-USDA regulated species
    - b) At least 7 days for USDA regulated species

5. Any unanticipated adverse events that occur during or after recovery should be reported to the Attending Veterinarian and the IACUC. (See IACUC Procedure 02-13 Reporting an Unanticipated or Adverse Event). Should immediate assistance be needed to provide interventions that may or not be listed in the approved protocol contact the UNT Attending Veterinarian for guidance and approval.

#### **REFERENCES**

- 1. The Guide for the Care and Use of Laboratory Animals.
- 2. Animal Welfare Act
- 3. UNT IACUC Procedure 02-13 Reporting and Unanticipated or Adverse Event
- 4. UNT IACUC Procedure 02-25 Surgical Procedures and Asepsis Requirements

### **APPENDICES**

**IACUC Standard Operating Procedures**