

Institutional Animal Care and Use Committee

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**IACUC Policy**

**on**

**Relief of Pain or Distress in Experimental Animals**

**IACUC Policy:**

Pain or distress experienced by animals used in research or education must be relieved by the use of appropriate sedation, analgesia, or anesthesia or by the provision of euthanasia. Personnel responsible for monitoring the well-being of animals must be familiar with species-specific indicators of pain or distress. If pain or distress is unavoidable, and the provision of pain relief is contraindicated by the nature of the study, the Principal Investigator (PI) must supply scientific justification for such procedures in an approved Institutional Animal Care and Use Committee (IACUC) protocol.

Any animal exhibiting clinical signs suggestive of pain or distress that cannot be relieved should be humanely euthanized as soon as possible, unless specific scientific justification to the contrary is documented in an IACUC-approved protocol or it is the opinion of the Attending Veterinarian or designee that the animal is not experiencing significant pain or distress as to warrant euthanasia.

The Attending Veterinarian has the authority to ensure the provision of adequate veterinary care, including the relief of pain or distress. As such, in emergent situations, the veterinarian is not required to obtain approval from the Principal Investigator or other parties prior to euthanizing an animal experiencing unrelieved pain or distress.

**Background:**

Adequate veterinary care and ethical responsibility for research animals includes the prevention of and relief from pain and distress. Pain and distress are undesirable variables and not scientific objectives for most research protocols. Consideration should be given to research objectives when selecting agents for relief of pain and distress, while ensuring humane treatment of animals. According to USDA/APHIS Policy #3 “…the withholding of pain and/or distress relieving care must be scientifically justified in writing and approved by the IACUC.”

**Guidelines:**

1. Painful procedures are those that would be reasonably interpreted as painful or distressful if performed in a human. Distress is defined as a stress to which animals cannot adequately adapt, or from which they cannot escape, and may include environmental stressors, as well as pain.
2. The following may suggest an animal is experiencing pain or distress:
   * Decreased food and water consumption;
   * Rapid weight loss (15-20% within any 5-day period);
     + Extended period of weight loss progressing to an emaciated state (weight less than 70% of previous normal adult weight);
     + Lack of weight gain in a growing animal (weight less than 70% of comparable untreated growing animals);
     + Persistent self-induced trauma such as licking, biting, or scratching an injured site, or other animal behavior indicative of specific or localized pain that cannot be relieved with analgesics;
   * Increased (frantic) or decreased (lethargic) movement;
   * Recumbency for a period longer than 3 days, especially if associated with anorexia;
   * Spreading area of hair loss associated with a disease process (e.g. decubital ulcer);
   * Rough, dull, or matted hair coat, hunched posture, distended abdomen, or lethargy, especially if prolonged greater than 3 days;
   * Abnormal posture or abnormal positioning (head-pressing);
   * Distended abdomen;
   * Diarrhea, especially if debilitating or prolonged greater than 3 days;
   * Severe central nervous system signs, such as seizures or paralysis;
   * Tearing, including porphyria, dilated pupils;
   * Grinding teeth;
   * Lesions or masses interfering with eating or drinking;
     + Other clinical signs judged by the staff to be indicative of a painful or distressed condition.
3. Animals considered to be experiencing pain or distress should be examined at least twice daily, unless a different frequency has been specified in the approved IACUC protocol.
4. PIs should consult with the veterinarian when planning procedures that may involve more than momentary pain or distress.
5. The drug, dose, and route of anesthetics, analgesics, or sedatives used to relieve pain or distress should be detailed in the approved IACUC protocol.
6. Situations may arise in which animals require relief from unanticipated pain or distress. In such situations, the PI or responsible research staff member(s) must contact veterinarian to discuss therapeutic options prior to initiating treatment. However, in emergent situations, the humane care of the animal takes precedence; the veterinarian may select drugs to relieve pain or distress in accordance with accepted veterinary practices.
7. If there are recurring incidences of pain or distress associated with a protocol that were not previously anticipated, the PI and veterinarian should meet to reevaluate and refine procedures or techniques. The outcome of this conference will be reported to the IACUC. If warranted, an amendment to the protocol will be submitted.
8. Should the PI and Veterinarian disagree on an animal’s experience of pain or distress, the Veterinarian or PI will make every effort to alert the Chair of the IACUC. The Chair, after consultation with the PI and Veterinarian, will arbitrate a decision regarding the animal. If this process is not feasible, the Veterinarian will utilize his/her authority to ensure the provision of adequate veterinary care and assure appropriate treatment or disposition of the animal.

**Applicable Regulations** **and Guidelines**

1. *Animal Welfare Regulations* (9 CFR Chapter 1, 1-1-92 Edition)

Section 1.1 Definitions

Section 2.31 Institutional Animal Care and Use Committee

Section 2.33 Attending Veterinarian and Adequate Veterinary Care

1. *USDA/APHIS Animal Care Resource Guide*

Policy 3 – Veterinary Care

Policy 11 – Painful Procedures

1. *The Guide for the Care and Use of Laboratory Animals*. National Research Council. 2011, pp.120-3.
2. *US Government Principles for the Utilization and Care of Vertebrate Animals used in Testing, Research, and Training,* Principles IV, V, and VI.