

**SEATTLE CHILDREN'S RESEARCH INSTITUTE  
OPERATING POLICIES / PROCEDURES**

**DEPARTMENT:** Institutional Animal Care and Use  
Committee  
**POLICY NUMBER:** IACUC-018  
**REPLACES:**  
**EFFECTIVE DATE:** June 10, 2005  
**REVISION DATE:** March 8, 2011  
**POSTED FROM:**

**TITLE:** Guidelines For Minimizing Pain And Distress

**SUMMARY:**

The IACUC shall be responsible for critically evaluating research protocols for the potential to cause pain or distress, and assess the steps to be taken to ensure and enhance animal well being.

**DEFINITIONS:** (From the *International Association for the Study of Pain*)

1. Pain: "An unpleasant sensory or emotional experience associated with actual or potential tissue damage".
2. Distress: "An aversive state in which an animal is unable to adapt completely to stressors and the resulting stress and shows maladaptive behavior."

**POLICY/PROCEDURE:**

- 018-1 Animal Welfare Regulations (AWRs) require investigators to consider alternatives to any procedures that may cause more than momentary or slight pain or distress to animals. A written narrative describing the methods and sources used to determine that no alternative is available must be provided to the IACUC.
- 018-2 In considering any protocol, with the potential for causing pain and/or distress to animals, the IACUC must:
- 018-2.1 Be satisfied that no alternative method is available;

- 018-2.2 Ensure appropriate analgesia and anesthesia are included in the research plan;
  - 018-2.3 Establish criteria for timely intervention, removal of animals from the study, or euthanasia if painful or stressful outcomes are anticipated, and;
  - 018-2.4 Review details of post-procedural care.
- 018-3 Examples of procedures that have the potential for causing pain and distress include, but are not limited to:
- 018-3.1 Physical restraint;
  - 018-3.2 Survival surgeries;
  - 018-3.3 Food and water restrictions;
  - 018-3.4 Death as an endpoint;
  - 018-3.5 Noxious stimuli;
  - 018-3.6 Skin or corneal irritancy testing;
  - 018-3.7 Tumor burdens;
  - 018-3.8 Intra-cardiac, or orbital sinus blood sampling, or;
  - 018-3.9 Abnormal environmental conditions.
- 018-4 Fundamental to the relief of pain and distress is the ability to recognize its clinical signs in various species of animals. It is essential that animal care, and research staff receive adequate training on recognizing clinical signs of pain and distress.
- 018-5 Unrelieved pain and distress should be considered acceptable based only on sound scientific rationale. The investigator must provide an assurance that unrelieved pain and distress will continue for only the minimum time necessary to achieve the study objectives.
- 018-6 Pharmacologic intervention may be used provided it is consistent with both the type of pain and distress, and the needs of the research. The Attending

Veterinarian must be consulted for all such protocols so guidance can be provided to investigators, and to the IACUC.

018-7 Non-pharmacologic intervention can be considered, including:

018-7.1 Special housing;

018-7.2 Dietary, or other environmental enrichment, and;

018-7.3 Supportive care.

## REFERENCES

National Research Council, "The Guide for the Care and Use of Laboratory Animals". National Academy Press; Washington DC. 1996.

ARENA / OLAW, "The Institutional Animal Care and Use Committee Guidebook", 2<sup>nd</sup> Ed. NIH. Bethesda, MD. 2002

Submitting Office: Office of Institutional Assurances

Approved by:

\s\ Anne Clancy, IACUC Chairperson, 3/24/2011

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