



TITLE: EUTHANASIA INCLUDING CERVICAL DISLOCATION AND DECAPITATION

PURPOSE: To provide acceptable practices to investigators/research staff of euthanasia when necessary in the course of animal research.

REVIEW/REVISIONS: Permanent amendment/revisions to this policy must be presented to the IACUC for review before implementation and should be developed by the IACUC Office and/or IACUC membership.

EFFECTIVE DATE: 12/20/95 - **Revised/Re-Approved:** 12/7/00, 12/6/01, 6/01, 11/2/06, November 1, 2007

PERSON(S) RESPONSIBLE: All University Animal Care and Research Investigator personnel charged with euthanizing animals.

POLICY/PROCEDURES:

The University of Arizona IACUC recognizes the **2007 Report of the AVMA Panel on Euthanasia** and the USDA/APHIS approved methods of slaughter for ratites as the accepted guidance document for euthanasia of research animals. When necessary, investigators must include acceptable methods of euthanasia on IACUC protocols following the standards outlined in these documents.

Two methods of euthanasia commonly used in laboratory research include cervical dislocation and decapitation. Both of these methods are considered conditionally acceptable methods of euthanasia by the AVMA and are clarified below for investigator guidance.

Cervical Dislocation

This method of euthanasia may be used in poultry, other small birds, laboratory mice, immature rats (weighing <200 g) and immature rabbits (weighing <1 kg). Manual cervical dislocation is a humane technique when performed by individuals with a demonstrated high degree of technical proficiency in those unanesthetized species/weight ranges mentioned above. Without prior anesthetization, this method may only be used when scientifically justified by the user and approved by the IACUC. Prior use by the investigator shall not be deemed as scientific justification.

Cervical dislocation may be used unconditionally in the species noted above if the animal is first anesthetized.

Investigators requesting approval of this method in unanesthetized animals must be properly trained and capable of consistently applying this technique humanely and effectively. Prior to IACUC protocol approval for euthanasia of unanesthetized research animals by cervical dislocation, investigators must be observed by a veterinary member of the IACUC (or UAC) to ensure proper training. An approval memo from the observing veterinarian will be included in the protocol file (see **Authorization Memo, Attachment 1**).

Decapitation

This method of euthanasia may be used in laboratory rodents, rabbits weighing <1 kg, birds, some fish, amphibians, reptiles (fish, amphibians and reptiles with pithing) and ratites. Without prior anesthetization, this method may only be used when scientifically justified by the user and approved by the IACUC. Prior use by the investigator shall not be deemed as scientific justification.

Decapitation may be used unconditionally in the species noted above if the animal is first anesthetized.



If the IACUC approves this method for use without prior anesthesia, a UAC veterinary member of the IACUC shall observe the personnel performing the decapitation to ensure that they have been properly trained. The IACUC member shall then submit an approval memo to be included in the protocol file (see **Authorization Memo, Attachment 1**).

Note: See also *Laboratory Equipment and Facilities Policy #303-xx-xx*

Scientific Justification

Acceptable Scientific Justification may be accomplished by one of the following methods:

- a. A small pilot study consisting of 6-10 animals per group may be incorporated into the protocol to test for significant differences between physical methods (i.e., cervical dislocation or decapitation) or acceptable methods (i.e., gas inhalation [carbon dioxide or halothane] or barbiturate overdose). The results of the pilot study would then be reviewed by the IACUC before granting final approval of physical methods for euthanasia.
- b. Results of a literature review may be submitted with the protocol. The review should demonstrate that the AVMA approved methods would not work in the specific study being reviewed.
- c. The IACUC may consider an ongoing study as justified if the investigator has provided strong justification that terminating the use of cervical dislocation or decapitation without anesthesia would severely affect the study.

Unacceptable justifications for continuing to use cervical dislocation or decapitation would include:

- a. The study is ongoing and the procedure cannot change midstream without compromising the results; or, this method of euthanasia has been performed for years. Prior data collection would now be made useless. The IACUC would respond by asking the investigator to perform a pilot study as outlined above.
- b. Colleagues at other institutions are using these methods and they are “industry standard.”
- c. Current grant requests do not cover a pilot study and no funds are available to perform it. The IACUC is sensitive to this issue. However, we are charged with making sure the University is in compliance with all applicable guidelines and regulations. One suggestion would be to share the cost of the pilot study with several colleagues within or outside the University. The results of the study could be attached to any similar protocol submitted as justification. Another suggestion would be to monitor the “funding sources” link at the Vice President for Research’s website for grants that may be available for this purpose (U of A website: www.vpr.arizona.edu/fundig/index.php). Since many institutions are affected, publication in a peer-reviewed journal would be highly recommended.

JUSTIFICATION:

To ensure that researchers follow acceptable practices of euthanasia when necessary in the course of animal research.



Cervical Dislocation or Decapitation Authorization Memo

Principal Investigator:

Control Number #

Title:

*****The Bottom Portion to be Completed by IACUC Authorized Veterinarian*****

UAC/IACUC Veterinarian: _____ Procedure Review Date:

Technique: Cervical Dislocation Decapitation

Species:

Person(s) Performing Procedure:

COMMENTS:

Pre-Sedation Waiver: Approved Disapproved

UAC/IACUC Signature: _____

****This form is to be filed with the IACUC Coordinator to finalize approval of the above noted protocol****