TITLE: Euthanasia by Cervical Dislocation or Decapitation

PURPOSE: To provide guidance on the use of cervical dislocation and decapitation as a method of euthanasia for select species.

REVIEW/REVISIONS: The IACUC will review and revise this guidance as needed.

The IACUC follows the recommendations of the 2013 Edition of the AVMA Guidelines for the Euthanasia of Animals for euthanasia of research animals. If animals will be euthanized as part of an IACUC protocol, investigators should use the acceptable methods of euthanasia outlined in this document.

Conditionally acceptable methods of euthanasia may be approved, but only with strong scientific justification for their use.

Two conditionally acceptable methods of euthanasia are cervical dislocation or decapitation, when performed without anesthesia. Note that, cervical dislocation and decapitation are acceptable euthanasia methods if the animal is first anesthetized.

Cervical dislocation without anesthesia

This method of euthanasia may be used in small birds, poultry, mice, immature rats (weighing <200 g) and rabbits.

For IACUC approval of this method in unanaesthetized animals, protocol participants must be properly trained and capable of consistently applying this technique humanely and effectively, as described in the AVMA Guidelines. At least one protocol participant must be trained by a UAC veterinarian or their designee to ensure proper technique. That individual will then be responsible for training additional protocol participants in the appropriate methodology. The principal investigator may also choose to have all protocol participants trained by the veterinary trainer.

Protocol participants transferring from another institution may provide proof of training from that institution to the veterinary trainer. The protocol participant will be required to display competency in the method to the veterinary trainer.

Decapitation without anesthesia

This method of euthanasia may be used in laboratory rodents, rabbits, poultry, birds, some finfish, amphibians and reptiles.

For IACUC approval of this method in unanaesthetized animals, protocol participants must be properly trained and capable of consistently applying this technique humanely and effectively, as described in the AVMA Guidelines. At least one protocol participant must be trained by a UAC veterinarian or their designee to ensure proper technique. That individual will then be responsible for training additional protocol participants in the appropriate methodology. The principal investigator may also choose to have all protocol participants trained by the veterinary trainer.

Protocol participants transferring from another institution may provide proof of training from that institution to the veterinary trainer. The protocol participant will be required to display competency in the method to the veterinary trainer.
Appropriate guillotines must be used for decapitation. One exception is that decapitation with scissors or a sharp blade is conditionally acceptable for altricial neonates (< 7 days of age). Guillotines used for decapitation without anesthesia must be maintained as described in Guidance 303 Maintenance of Guillotines.

**Acceptable scientific justification**

- Results of a literature review may be submitted with the protocol. The review should demonstrate that the AVMA approved methods would compromise the data in the specific study being reviewed.
- A small pilot study consisting of 6-10 animals per group may be incorporated into the protocol to test for significant differences between conditionally acceptable physical methods (i.e., cervical dislocation or decapitation without anesthesia) or acceptable methods (e.g., CO₂ or barbiturate overdose). The results of the pilot study would then be reviewed by the IACUC before granting final approval of conditionally acceptable physical methods for euthanasia.
- 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 adversely affect the study data.