

ALL CAMPUS ANIMAL CARE & USE COMMITTEE POLICY

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Title: Emergency Evacuations during Animal Surgery—Guidelines

Purpose: Research animals frequently undergo surgery in the course of research. Occasionally, during surgical or prolonged non-surgical procedures, evacuation of a building is required for safety reasons, i.e. fire, gas leak, bomb threat. It is not usually known when operating personnel can return to the animals. Often it is not feasible to take animals outside the surgical theater during an emergency, and not enough time to finish procedures, or even to close incisions. With these constraints in mind, the laboratory animal veterinary community offers these points of consideration.

Policy:

Factors to be assessed when deciding whether euthanasia is appropriate

- If required to recover from anesthesia unattended, will the animal be in danger of severe pain or distress, or of injuring itself?
- Is the animal salvageable for research if the surgery is interrupted?
- Is there time, in the face of an evacuation, to assure that the animal has a reasonable chance of survival if left unattended?

Suggested courses of action

- In the event of an emergency evacuation, an animal that has an open thorax or abdomen should be euthanized on the surgery table by

surgical personnel before they leave the room. This can be rapidly accomplished by the use of euthanasia solution, concentrated KCl given by intravenous or intracardiac route, or by severing the thoracic or abdominal aorta.

- An animal with a simple skin incision that does not penetrate the thorax or abdomen (i.e., at the beginning or the end of a surgical procedure) can be disconnected from gas anesthesia and extubated if necessary. If time permits, the incision can be rapidly closed with staples. If not, the animal can be placed in its transport cage to recover while personnel leave the building. These incisions can be closed later.
- An animal with the skull exposed for an implant can be handled similarly to an animal with a simple skin incision. Although not ideal, clinical experience indicates that delayed closure of scalp over skull is not life threatening. However, an animal with a craniotomy should either have skin apposed over brain tissue or should be euthanized before operating staff exit the area.
- Other scenarios, such as the presence of an intra-arterial cannula need to be evaluated on a case-by-case basis. For example, it would not be advisable to leave a nonhuman primate to recover from anesthesia with a femoral cannula in place. Some species, such as swine, could be allowed to recover with a cannula in place, if it were in a vessel from which it could not be easily dislodged or the animal could not reach.
- Other surgeries, such as laparoscopy (abdomen penetrated, but not open), orthopedic procedures (bone exposed, +/- significant dissection) must also be evaluated on an individual basis.