

SURGERY - DEFINITIONS, POLICIES AND GUIDELINES

IACUC endorses as policy the following excerpt from page 11 of the 1996 National Research Council "Guide for the Care and Use of Laboratory Animals."

"Major surgery penetrates and exposes a body cavity or produces substantial impairment of physical or physiologic function. Multiple major survival surgical procedures on a single animal are discouraged but may be permitted if scientifically justified by the user and approved by the IACUC. For example, multiple major survival surgical procedures can be justified if they are related components of a research project, if they will conserve scarce animal resources (NRC 1990; see also footnote, p.2), or if they are needed for clinical reasons. If multiple major survival surgery is approved, the IACUC should pay particular attention to animal well-being through continuing evaluation of outcomes. Cost savings alone is not an adequate reason for performing multiple major survival surgical procedures (AWRs)."

It is IACUC policy that all surgical facilities need to be inspected by IACUC prior to their use.

SURVIVAL SURGERY

Pre-Surgery for Single or Multiple Survival Surgeries

Procedures need to be outlined in the protocol for preparation of the animal for surgery. These procedures include aseptic preparation of the surgical site including shaving of fur and appropriate disinfecting of the skin, pre-surgical medication(s), and food or fluid restriction.

Multiple Major Survival Surgery

The minimum requirements for multiple survival surgery protocols are as follows:

- 1) The second surgery must be related to the research protocol.
- 2) The protocol must include written justification demonstrating the need to perform multiple procedures on animals.
- 3) The protocol must have additional follow-up observation beyond what is required for standard single survival surgeries. This observation should include an awareness of the second surgery during the pre-surgical, the surgery and the post-surgical periods. Follow-up should also include any special procedures or extra care required during the period between surgeries.

Minor and Rodent Surgery

Survival surgical procedures which do not qualify as "major" and surgeries performed on mice of the genus *Mus* and rats of the genus *Rattus* do not require a dedicated surgery facility. However, the area of the laboratory or room where surgery is performed should not be used for other functions at the time that surgery is in progress and the area should be clean and free of clutter.

Procedures must minimally include the use of sterile instruments, surgical masks and gloves, surgical draping as appropriate, and aseptic preparation of the surgery site.

Major Surgical Procedures on Species other than Mice and Rats

Major survival surgical procedures in mammals other than mice and rats must be conducted in a facility specifically intended and used only for that purpose and which is maintained and operated to ensure cleanliness. Additionally, aseptic procedures which include the wearing of sterile surgical gloves, gowns, caps and face masks; and use of sterile surgical instruments and draping must be used.

Post-Surgical Period

The post-surgical period is generally considered to be the period from the end of surgery to the point when the surgical wound is healed,(e.g., time of suture removal). The period may be extended in cases where a physical impairment has been induced despite healed surgical wounds. During this time period daily recorded observations are required by qualified research team personnel.

NON-SURVIVAL SURGERY

Non-survival surgery is defined as a surgery in which the animal is euthanized before recovery from anesthesia.

Animals must be maintained at an anesthetic plane which precludes pain and distress without recovery until the time of euthanasia.

The Committee endorses the guidance provided on P. 62 of the 1996 National Research Council "Guide for the Care and Use of Laboratory Animals:"

"...at a minimum, the surgical site should be clipped, the surgeon should wear gloves, and the instruments and surrounding area should be clean."