



Multiple Survival Surgery

- 351.1 Purpose:** This policy defines major and minor survival surgeries and describes criteria for which an animal may undergo multiple survival surgeries.
- 351.2 Scope:** This document applies to all animal research activity under the jurisdiction of the Emory University IACUC.
- 351.3 Background:** Both the AWA regulations (9 CFR, Part 2, Section 2.31(d)(1)(x)(A) and (B) and Animal Care policy #14) and the Guide for the Care and Use of Laboratory Animals (p. 30,117) require that no animal assigned to a protocol be used for more than one major survival surgery unless the procedures are included within one protocol, are scientifically justified by the investigator, or are necessary for clinical reasons. Furthermore, the Guide states that regardless of classification, multiple surgeries on a single animal should be evaluated to determine their impact on the animal's well-being.
- 351.4 Definitions:** The following definitions are intended to serve as a guide only. The classification of a surgery as major or minor is determined on a case-by-case basis by the IACUC and the Attending Veterinarian with regard to its impact on an animal's well-being.
- Survival surgery:** a surgery from which the animal regains consciousness from anesthesia following the procedure.
 - Major survival surgery:** any surgical procedure that penetrates and exposes a body cavity or produces substantial impairment of physical or physiological functions (9 CFR, Parts 1 and 2), or involves extensive tissue dissection or transection (Guide). Examples include but are not limited to: laparotomy, thoracotomy, ovariectomy, nephrectomy.
 - Minor survival surgery:** a surgical procedure that does not expose a body cavity and causes little or no physical impairment. Examples include: wound suturing, percutaneous biopsy, lymph node biopsy, laparoscopic oocyte collection, and subcutaneous osmotic mini-pump implantation.
 - Multiple survival surgery:** More than one survival surgery (major or minor) on a single animal.
- 351.5 Policy:** Multiple major survival surgeries are permitted only under the following circumstances:
- 351.5.1** Essential components of a single research protocol in which other methods will not achieve the research goals.
- 351.5.2** Scientifically justified by the principle investigator and approved by the IACUC. Cost savings alone are not sufficient justification for multiple survival surgeries (Guide page 30). Justification must include an explanation of the need to have an animal undergo multiple major survival surgeries, a description of the procedure(s), the total number of surgeries an animal will undergo, the frequency of the procedure, the period of time between procedures, and the methods used to minimize pain and distress. It is recommended that the investigator provide references when possible.
- 351.5.3** Clinically necessary for the health of the animal. This determination must be made in consultation with the Attending Veterinarian and does not necessarily require advance IACUC review and approval.

- 351.5.4** The number of survival surgeries must be limited to the minimum number to achieve the research objectives and must be determined with due consideration to minimizing pain and distress on any one animal. Some procedures categorized as minor may induce substantial post-operative discomfort and should similarly be described and scientifically justified in the protocol if performed multiple times on one animal.
- 351.5.5** Animals undergoing a major survival surgical procedure under one protocol must be identified (written on the cage card or in the veterinary medical record) to prevent a second major survival surgical procedure under a different protocol without IACUC review and approval. This includes purchased animals that have already undergone a surgical procedure.
- 351.5.6** Animals that undergo a major survival surgery as part of proper veterinary care may still be used in a protocol that requires a major survival surgery in consultation with a veterinarian.
- 351.5.7** Exceptions to the single protocol restriction for multiple major survival surgeries on USDA-regulated species (i.e. warm-blooded animals other than mice, rats, and birds bred for use in research) require a formal request by the Emory Institutional Official to the USDA/APHIS who have the authority to grant or deny the request. Exceptions for non-USDA regulated animals are highly discouraged and require IACUC review and approval.

351.6 Document Properties

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