

Rodent Surgery

Position Statement

The American College of Laboratory Animal Medicine (ACLAM) recommends that all institutions that use animals in research, testing and training develop and implement written standards for performing surgical procedures on rodents. These standards must be approved by the Institutional Animal Care and Use Committee (IACUC). All survival surgical procedures should incorporate aseptic technique.

Perioperative care should be described. Pain and distress should be minimized through appropriate use of anesthetics, analgesics, tranquilizers, nursing care and/or other treatment. The standards should be reviewed periodically and the effectiveness assessed using performance-based standards.

Background

General requirements for rodent surgery are outlined in the Guide for the Care and Use of Laboratory Animals (Guide). The Association for Assessment and Accreditation of Laboratory Animal Care, International endorses the Guide standards for rodent surgery by requiring accredited institutions to have adequate procedures in place for conducting rodent surgery. Federal Regulations and Policies regarding care and use of laboratory animals stress the importance of minimizing pain and distress in all animal subjects. Animal users have the responsibility to provide rodents with adequate veterinary care.

ACLAM, representing board-certified veterinary specialists in the field of laboratory animal medicine, recommends that the institution's standard on rodent surgery be developed with the input of specialist(s) in Laboratory Animal Medicine. Moreover, ACLAM recommends that all surgical procedures performed on rodents be developed in consultation with the Attending Veterinarian or his/her designee and described in an approved IACUC protocol. The protocol should include a description of perioperative care, aseptic techniques and the use of anesthetics, analgesics, tranquilizers, nursing care and/or other treatments. Finally, the IACUC should set institutional guidelines for the qualifications and training of personnel who perform perioperative care and surgical procedures in rodents.

References

NRC (National Research Council), Institute of Laboratory Animal Resources, Commission on Life Sciences. 1996. Guide for the Care and Use of Laboratory Animals, Washington D.C., National Academy Press.

The Animal Welfare Act, 7USC Sec 2131 et seq. Title 9, Code of Federal Regulations, parts 1, 2, & 3, January 1998.

NRC (National Research Council), Committee on Rodents, Institute of Laboratory Animal Resources, Commission on Life Sciences. 1996. Rodents: Laboratory Animal Management. Washington D.C., National Academy Press.

Brown, M.J., P.T. Pearson, F.N. Tomson. 1993. Special Report: Guidelines for animal surgery in research and teaching. Am. J. Vet. Res. Vol. 54, No. 9 pp. 1544-1559.

Cunliffe-Beamer, T.L., 1993. Applying Principles of Aseptic Surgery to Rodents. AWIC Newsletter, Vol. 4, No. 2.

Bradfield, J.F., T.R. Schactman, R.M. McLaughlin, and E.K. Steffen. 1992. Behavioral and physiologic effects of inapparent wound infection in rats. Lab. An. Sci. Vol. 42, No. 6.

Banks, R.E., 1995. Special Report: Institutional Surgical Practices for Nonveterinarians. J Invest. Surg. Vol. 8, pp. 211-222.