

Best Practice Resources for Laboratory Animal Anaesthesia and Analgesia

Background

This document is intended as an update to the previous 'Analgesic Best Practice for the Use of Animals in Research and Teaching - An Interpretative International Literature Review'. This article was written in 2002 and contained material concerning the use of some drugs and techniques that had become outdated. There are now many internet resources that provide quality information on this subject and so rather than attempt to revise the original article, NAEAC felt it was more appropriate to provide links to these with a brief introduction to each.

Whilst we have made every effort to list only quality sources, the inclusion of a link on this list does not indicate that NAEAC endorses the material contained at that site. Indicated material is for information only and readers should make separate efforts to verify material describing techniques and drug doses before making use of them.

Introduction to Internet Resources

National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs)

<https://www.nc3rs.org.uk/anaesthesia>

This site contains general introductory material about anaesthesia and analgesia in laboratory species. It will be of most use to parties interested, but not experienced in the principles of anaesthesia and analgesia. It contains no detail about different species or reference material about particular techniques or drug doses.

Particularly noteworthy at this site is the stand-alone training resource (linked in the main site) that can be used to introduce new researchers to anaesthesia in laboratory animals.

Guidelines for Anesthesia and Analgesia in Laboratory Animals (University of California, Berkeley)

<https://acuc.berkeley.edu/guidelines/anesthesia.pdf>

This is a more detailed set of general guidelines which includes some practical information, but it should be remembered that it is written for an internal audience and so contains material that is specific to procedures at UCB. Much of the regulatory content is specific to the USA.

Laboratory Animal Anesthesia and Analgesia (University of California, Santa Barbara)

<http://www.research.ucsb.edu/compliance/animal-subjects/veterinary-care/laboratory-animal-anesthesia-and-analgesia/>

This is a detailed introduction containing information about specific anesthetic and analgesic techniques and including information about dose rates and routes of administration in common species of laboratory animals. This level of detail will be useful for more advanced researchers wishing to refresh their understanding of anesthetic theory or for junior staff who have some experience of working with animals in a surgical environment and want to find out more. It contains much detail that would probably be confusing for those with a casual interest.

Johns Hopkins Animal Care and Use Committee Formulary (Johns Hopkins Medicine, Baltimore, Maryland)

www.hopkinsmedicine.org/animalresources/

This site contains very detailed information about the surgical care of rats and mice in particular. Description of safe techniques for a number of procedures are included along with a detailed rodent formulary. This site will be useful to those familiar with the practices of anesthesia and analgesia who want to check specific information about techniques or drug combinations.

If any of the above links do not work please let NAEAC know by emailing NAEAC@mpi.govt.nz