

Analgesia and Anesthesia

Pain prevention and alleviation are fundamental responsibilities in veterinary medical care, particularly in the context of procedural and surgical interventions. In research settings, the ethical and scientific imperative to manage pain requires the judicious use of anesthetics and analgesics. A veterinary care program must include assessment of animal well-being, comprehensive management of pain, appropriate surgical and perioperative care, and an effective anesthesia and analgesia plan including consideration of preemptive analgesia. A multi-modal approach, utilizing agents from different pharmacologic classes with synergistic or additive effects to target multiple pain pathways, should be considered. Such strategies optimize analgesic efficacy while minimizing adverse effects associated with any single drug. Elements of perioperative care, including sedation, analgesia, and anesthesia, must be integrated into protocol development and reviewed by the Institutional Animal Care and Use Committee (IACUC) or equivalent Oversight Body (OB). These considerations apply not only to surgical models but also to non-surgical procedures that may result in pain. Ensuring these components are addressed and documented reflects a commitment to both animal welfare and research integrity. Non-pharmacological interventions (e.g., supportive care, modifying husbandry conditions, etc.) may also be considered as part of a multi-modal pain management strategy to enhance comfort, support recovery, and further mitigate pain.

Close and regular monitoring of animals, with documentation and objective assessment of well-being, is a critical component of effective pain management. This may include recording clinical signs, applying species-appropriate pain scoring systems, and verifying that analgesics and anesthetics are administered as prescribed or outlined in the approved protocol. Equally important is the evaluation of the effectiveness of these agents in alleviating pain, which must be assessed and adjusted as needed to ensure optimal animal welfare. Protocols must clearly define species-specific and experimentally anticipated indicators of pain, along with humane endpoints, to guide timely and appropriate intervention.

Oversight by the Attending Veterinarian is essential in ensuring that monitoring practices, drug administration, and protocol adherence meet the highest standards of veterinary care and regulatory compliance. Veterinary anesthesia and analgesia are constantly evolving fields, with new insights and advancements frequently emerging in the scientific literature. As such, it is incumbent upon responsible veterinarians to stay informed of the latest research and developments in veterinary practice.

AAALAC International acknowledges that there can be very diverse anesthetic and analgesic regimes for different procedures and situations. This diversity is essential to accommodate the varying needs of different species and the specific requirements of distinct research protocols. The evaluation of these regimes is conducted according to performance standards and current veterinary practice, ensuring that the chosen methods are both effective and humane.

By adhering to these standards, AAALAC International ensures that animal welfare is prioritized while maintaining the integrity and reliability of scientific research.