

ACLAM Position Statement on Adequate Veterinary Care

Introduction

This position statement was developed by the American College of Laboratory Animal Medicine (ACLAM) to assist in the provision and evaluation of veterinary care for laboratory animals used, or intended for use, in research, teaching, testing or production. While this document aims to deliver independent guidance for animal programs, ACLAM recognizes that both regulatory and scientific sponsoring agencies such as the United States Department of Agriculture (USDA) and the Public Health Service of the United States Department of Health and Human Services (PHS/DHHS), through their respective missions, sanction the provision of adequate veterinary care; further elaboration on this concept can be found within the *NRC Guide for the Care and Use of Laboratory Animals* (2011). Additional animal care guidance is supplied by allied laboratory animal organizations, including the Association of Primate Veterinarians (APV), AAALAC International, the American Association for Laboratory Animal Science (AALAS) and the American Society of Laboratory Animal Practitioners (ASLAP). While these organizations may be founded in the United States, the shared principles regarding veterinary care are global in scope. Importantly, the professional judgment of a trained and experienced veterinarian is essential in the delivery of adequate veterinary care to laboratory animals.

Educational Requirements and Competency

Veterinarians are individuals that have earned academic degrees from comprehensive universities or similar educational institutions; this degree is a prerequisite for veterinary practice in a variety of situations and circumstances. Basic veterinary competency is measured in the US by passage of national certification and clinical competency exams; for locales outside the US, foreign veterinary graduate assessments may be required of individuals prior to legal practice. All veterinarians are expected to adhere to a progressive code of ethical conduct known as the Principles of Veterinary Medical Ethics (PVME), which are promulgated by the American Veterinary Medical Association (AVMA). Contemporary veterinary medical education emphasizes companion and farm animal species, so advanced training and/or knowledge is often necessary to gain expertise with additional animal species utilized in experimental settings, for specific research methodologies, and regarding issues pertinent to the involvement of animals in research. Laboratory animal veterinary expertise is gained through advanced training in laboratory animal medicine (LAM), which can be accomplished by completion of designated postdoctoral LAM training programs. Alternatively, extensive instruction in animal health and husbandry, welfare regulations and behavior beyond the completion of traditional veterinary school curricula, with mentored guidance from an experienced laboratory animal specialist, can also result in similar levels of proficiency. Achievement of high-level competence is best indicated by board-certification and participation in LAM continuing education opportunities.

Authority of the Veterinarian

The veterinarian responsible for supporting an institutional animal care and use program must have appropriate authority and resources to execute the duties inherent in ensuring the adequacy of veterinary care and animal well-being during all phases of an animal's life.

Key aspects of veterinary authority include:

- Oversight of animal care and use to ensure that the program meets applicable standards for animal health and welfare;
- Knowledge of the current and proposed use of animals in the institution's research, testing, teaching, and production programs;
- Application of appropriate treatment or control measures, including euthanasia if indicated, following the diagnosis of an animal disease or injury;
- Consultation with researchers on animal methodologies, surgery, and peri-surgical care;
- Delivery of competent professional judgment to select the most appropriate agents to alleviate pain or distress in order to assure humane treatment of animals while avoiding undue interference with experimental goals.

Complexity of the Veterinary Care Program

The complexity, nature, components, and structure of the veterinary care program will depend upon several factors, such as the number of animals, diversity of animal species, the variability and intensity of the experimentation to be conducted, the facilities in which animals are maintained, and the regulatory compliance environment of the institution. Institutions with diverse research programs encompassing large numbers of animals may need several veterinarians to fulfill the program's requirements. In contrast, one veterinarian may be sufficient at sites with modest research productivity housing fewer animals, and a part-time or consulting veterinarian may be acceptable for establishments with low animal numbers and minimal research activity. In all cases, formal arrangements for the provision of veterinary oversight and medical care must be made. Consulting veterinarians must make regularly scheduled visits (frequency based on need) and further arrangements must ensure that veterinary services are readily available at all other times.

Considerations for Adequate Veterinary Care

Ideally, the veterinary care program should meet external and internal expectations of the institution through the identification and adoption of techniques, procedures and practices that sustain animal health and well-being. Adequate veterinary care includes providing assistance to animal users and monitoring animal use to assure that appropriate methods of handling, restraint and interventional therapeutics are being used prior to euthanasia, and that appropriate delivery of euthanasia is performed when required.

Provision of adequate veterinary care involves the following primary areas of responsibility:

1) Animal procurement and transportation

Animals must always be acquired lawfully. Veterinarians should assist institutions in evaluating the quality of animals provided by potential vendors for suitability of use based upon research needs. Animals must be transported within and between institutions in accordance with applicable laws and regulations. Transportation methods, equipment and vehicles should be designed to minimize adverse effects on animal health and well-being.

2) Acclimation

Often, quarantine and acclimation programs for newly arrived animals are necessary to allow time to assess health status, allow animals to recover from the stress of shipment and provide an opportunity to adapt to the new environment. The extent of these programs depends upon several factors, including species and source of the animals, as well as their intended use. For some animals, such as those species obtained from a sole reliable sources for which their health status is known, visual inspection upon arrival may suffice. For species such as nonhuman primates, farm animals, wild animals, dogs and cats, and non-specific pathogen free rabbits and rodents, appropriate quarantine procedures may need to be undertaken for additional observations, behavioral assessments, and diagnostic testing.

3) Preventative medicine

Preventative medicine programs (herd-health, vaccination and disease control measures) should be in place in keeping with the complexity of the animal care program and overall research mission. Processes should be established to protect animals within the institution from exposure to diseases; such procedures may include facility design features, containment/isolation areas, personal protective equipment, occupational health practices and the use of standard operating procedures, and rederivation of certain animals/strains to obtain pathogen-free research subjects.

Disease surveillance is a major responsibility of the veterinarian and should include routine monitoring of colony animals for the presence of parasitic, bacterial and viral agents that may cause overt or in apparent disease. The type and intensity of monitoring necessary will depend upon professional veterinary judgment and the species, source, use and number of animals involved in research endeavors.

4) Animal well-being and clinical care

Adequate veterinary care includes the promotion and monitoring of an animal's well-being before, during, and after experimentation or manipulation. Veterinary care measures should include adherence to the principle of refinement with respect to experimental procedures, study design, and clinical techniques. Animal well-being includes both physical and psychological aspects of an animal's condition and may be evaluated in terms of environmental comfort, minimization of pain and distress, appropriate social interactions (both with conspecifics and with man), species-typical behaviors, and interaction with enrichment devices.

Daily observation of all animals by qualified personnel is required; there must be a timely and accurate method for conveying any information regarding animal health, behavior and well-being to the veterinarian. Medical records (described

in a related ACLAM Position Statement) should be clear that treatments were done under the direction and advisement of the laboratory animal veterinarian.

Attention should also be given to preventing and/or treating noninfectious diseases that may disrupt research or adversely impact animal health or well-being. This may include, but is not limited to, nutritional deficiencies or toxicities, congenital defects, and unanticipated outcomes of experimental manipulation, such as genetic modification, or unintentional surgical induction of a disease state.

Access to diagnostic laboratory services is essential to veterinary medical interpretations, establishment of differential lists, and diagnoses. Laboratory services should include necropsy, histopathology, microbiology, clinical pathology, serology, and parasitology as well as other routine or specialized laboratory procedures, as needed. It is not necessary that these services be available within the animal facility if laboratories with appropriate capabilities are available and utilized.

5) Surgical procedures

A program of adequate veterinary care includes the timely review of all preoperative, surgical and postoperative procedures by a qualified veterinarian. The institution bears responsibility and must assure, through authority explicitly delegated to the veterinarian or to the IACUC, that only facilities with programs appropriate for the intended surgical procedures are utilized and that personnel are adequately trained and competent to perform the procedures. The veterinarian's inherent responsibility includes overseeing and assessing the adequacy of surgical monitoring and providing recommendations concerning pre-surgical procedures, surgical techniques, the qualifications of approved personnel to perform surgery and the provision of peri-operative care.

6) Anesthesia, analgesia, and euthanasia

Written recommendations regarding the selection and use of anesthetics, analgesics, sedatives and euthanasia practices for all species used should be provided as a resource to the institution and investigators, with periodic review and revision by the veterinarian. Euthanasia methods for animals used in research, teaching, testing and production must comply with the most current AVMA Guidelines for the Euthanasia of animals.

Adherence to Regulations

At least one veterinarian must be a voting member of the Institutional Animal Care and Use Committee (IACUC) and be actively involved in the review of proposed animal care and use (IACUC protocols/proposals, housing and husbandry, treatments, welfare and endpoints), regardless of the USDA humane use categorization and species selection. A further charge to the veterinarian is to serve as an authority on regulatory language and expectations to better provide relevant advice to the IACUC, Institutional Official, Principal Investigators (Researchers), facility managers and all others involved in the animal program. The Attending Veterinarian, as defined in US regulation, is to have direct or delegated responsibility for activities involving animals at the institution.

Conclusion

The Diplomates of the American College of Laboratory Animal Medicine believe that adequate veterinary care is an integral component of humane animal care and use in research, teaching testing, and production. The state of animal well-being

ensured through adequate veterinary care is essential to reliability of results from biomedical, agricultural and veterinary investigations involving animals.

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