

# International benchmarking: AAALAC International Accreditation

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Research is increasingly a global enterprise. However, there is a range of standards of animal care and use around the world, and this variability may impact on the quality of the research data produced in different laboratories and impact on animal welfare. One way to mitigate the risks such variability may impose on the integrity of the research endeavor is to apply a quality standard of animal care and use that conforms with multinational expectations and approaches. Institutions engaged in animal-based research, testing and teaching (RTT) should consider benchmarking their procedures, policies and philosophies against similar types of institutions in their country and internationally. Indeed, there are risks to not benchmarking the animal care and use programme against those of other institutions. Public relations problems, increased costs, loss of innovation, and possibly erosion of public and community trust may result when an animal care and use programme becomes stagnant. In addition, potential collaborators or clients may look to place their work elsewhere if they determine that the institution does not meet an international level of quality. Thus, institutions should determine the risks of not looking outward with the value gained by learning from others.

According to Wikipedia, benchmarking “is a process used in management... in which organizations evaluate various aspects of their processes in relation to best practice, usually within their own sector.

This then allows organisations to develop plans on how to adopt such best practice, usually with the aim of increasing some aspect of performance. Benchmarking... is often treated as a continuous process in which organizations continually seek to challenge their practices.” Primary reasons for an organization to benchmark its procedures and practices include verifying that practices are being done in accordance with internal expectations; reviewing practices to improve performance; and providing internal and external stakeholders assurance that best practices are being employed.

There are several significant influences that may lead an institution to develop a system of benchmarking. For example, the public’s expectations for science are high, and the public demands best practice. Research costs with animals are increasingly a significant financial issue for institutions, particularly in times of reduced funding from granting agencies. Researchers and clients want assurances of sound data and defensible animal welfare, while animal rights groups want to stop animal use. These pressures can, in large part, be met by establishing an institutional system for improving performance, setting standards for performance monitoring, and ensuring appropriate management controls. The benchmarking system selected should be one that guides the institution in performance improvement. The institution engaging in this exercise should ensure that the information derived from the benchmarking process can be meaningfully translated into action, i.e., that the best practices can, in fact, be implemented, albeit they may need to be adapted to match the institution’s specific culture.

The leading worldwide system of benchmarking institutional animal care and use programmes is

that provided through the accreditation programme of the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC International). AAALAC International is a private, nonprofit organisation that promotes the humane treatment of animals in science. It is the sole organisation that accredits programmes using animals in RTT worldwide, currently accrediting more than 750 programmes in 29 countries. AAALAC is in a unique position to benchmark animal care and use programmes as, collectively, the expert teams that conduct the on-site evaluations have visited an average of 212 institutions each year for the last six years. Thus, the AAALAC site visitors have a profound depth of experience in reviewing a wide range of animal care and use programmes. The standards used in the evaluation include the country's regulations and policies, the overarching principles of the *Guide for the Care and Use of Laboratory Animals* (National Research Council 1996), and any local/institutional guidelines and policies in place. An additional important component of the AAALAC International accreditation process is the application of the Three Rs to the review of the animal care and use programme as these are key precepts of the *Guide*.

Use of the AAALAC International accreditation programme as the metric for benchmarking is further enhanced by the peer-review basis for the assessments. For example, the composition of the site visit team is tailored to the institution's RTT programme, and includes team members familiar with the species used at the institution and the types of research done there. The team members are colleagues who share similar experiences to the institutions they visit. As an example, a site visitor who works at a diverse academic programme would be well-qualified to conduct a site visit to another large, complex academic institution. Additional layers of peer review are applied to the assessment process as the report of the site visit generated by the site visitors undergoes a thorough review by several other members of the Council on Accreditation, including very senior members on the Council who serve as elected Officers of the Council. The letter that will be sent to the institution indicating the institution's accreditation status is carefully crafted, based on the review of the site visit report by the Council. The letter then also undergoes further detailed review by the Council Officers and senior staff within AAALAC International. These multiple layers

of peer review help to ensure an accurate assessment of the animal care and use programme and a product (i.e., the accreditation letter) that is designed to be meaningful and resourceful to the institution.

There have been several concrete improvements in animal care and use programmes around the world resulting from participation in the AAALAC International accreditation programme. These include: 1) enhancing the level of veterinary care provided to animals; 2) ensuring a sound system of review of animal use proposals and of the animal programme; 3) enhancing worker safety; 4) providing enrichment to animals; and 5) basing the animal programme on the principles of the Three Rs. Two examples are considered here in more detail.

## **Adequate Veterinary Care**

When assessing the adequacy of the veterinary care provided to animals, topics that may be reviewed include the veterinarian's experience with the species of animals used; his/her experience with the procedures being proposed (e.g., surgery, gavage, etc.); the training s/he received in veterinary medicine in general, and laboratory animal medicine more specifically; whether the veterinarian is receiving continuing education to stay current in the profession; and the responsibilities and authority for the animal care programme conferred upon the veterinarian by the institution. The AAALAC International site visit team would assess these factors, evidenced by the presence (or absence) of good medical records, an effective preventive medicine programme, an effective disease surveillance programme, and other related clinical elements of a programme of adequate veterinary care. The AAALAC site visitors would also determine the veterinarian's role in the Animal Ethics Committee (AEC; also known as the Institutional Animal Care and Use Committee or Animal Care Committee, depending on the country). The site visit team would examine the veterinarian's role in reviewing protocols, assisting with the choice of drugs used on the animals (e.g., analgesics, anesthetics), and whether the veterinarian is viewed as a partner in the research enterprise (i.e., is able to offer guidance to facilitate the research and ensure animal welfare).

Excellent resources that describe the laboratory animal veterinarian's roles and responsibilities in an animal care and use programme are the "Guidelines

for the Veterinary Care of Laboratory Animals” (FELASA 2008) available at <http://la.rsmjournals.com/cgi/content/abstract/42/1/1> and the “Report of the American College of Laboratory Animal Medicine on Adequate Veterinary Care in Research, Testing and Teaching” (ACLAM 1996) available at [http://aclam.org/education/guidelines/position\\_adequate-care.html](http://aclam.org/education/guidelines/position_adequate-care.html).

## Pain and/or Distress

The attention an institution pays to the level of pain and/or distress potentially experienced by the animals on study is an important element of the AAALAC International assessment. There are several stages of review by AAALAC International of pain and distress prevention and abatement. The process begins with questions posed in the Programme Description that the institution submits to AAALAC in advance of the on-site evaluation (see <http://www.aaalac.org/accreditation/apply.cfm>). These questions include: 1) how and by whom are levels of pain and distress assessed and categorised; 2) what are the AEC (or IACUC, ACC, etc.) guidelines for avoiding unnecessary pain or distress; 3) what are the anaesthetic and analgesic agents used for each species; 4) how does the veterinarian provide input to the choice and use of drugs; 5) how is the use of anaesthetics and analgesics monitored; 6) what is the training and experience of personnel performing anaesthesia; 7) what methods of euthanasia are used for each species; and 8) what is the training and experience of personnel performing euthanasia. During the on-site assessment, the site visit team reviews a selection of animal study proposals; they evaluate the health and condition of the animals and review veterinary medical records; and they assess the AEC processes, to include a review of various documents such as applicable internal policies and guidelines. Specific items the site visit team reviews include the consideration of analgesics by the investigator and the AEC,

including the suitability of the agent and dose; consideration of adapting animals to restraint; and consideration of humane endpoints as well as a clearly defined experimental endpoint.

As a direct consequence of the emphasis AAALAC International places on this aspect of the animal care and use programme, institutions have modified their protocol review practices to intensify searches for alternatives to painful or distressful procedures; they have re-reviewed protocols involving painful procedures to revisit the pain categorization and related actions taken to reduce pain; they have ensured consideration of analgesic use; they have implemented procedures for assessing pain during the postoperative period; they have enhanced review of humane endpoints; and they have emphasised *prevention* of pain and distress.

In conclusion, benchmarking of animal care and use programmes through the AAALAC International accreditation programme provides a metric that is predicated on science-based standards, utilises performance-based standards, is sensitive to different legal and cultural issues, highlights best practices, results in cross-fertilisation of ideas and knowledge through the site visit process, and provides the institution with a continuous quality assessment and improvement process.

## References

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- Voipio, H-M.; Baneux, P.; Gomez de Segura, I. A.; Hau, J., Wolfensohn, S. 2008: Guidelines for the veterinary care of laboratory animals: Report of the FELASA/ECLAM/ESLAV Joint Working Group on Veterinary Care. *Laboratory Animals* 42: 1–11.