

Humane Endpoint for Laboratory Animals – The Role of IACUC

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Humane endpoint is defined by *Guide for the Care and Use of Laboratory Animals* (NRC 2011) (*the Guide*) as “*the point at which pain and distress in an experimental animal is prevented, terminated, or relieved*”. In general, implementation of humane endpoints had been known as one of refinement method, as alternative to experimental endpoint, by reducing unalleviated pain/ distress in animal.

As part of its responsibility to oversee and evaluate the animal care and use program, IACUC play an important role in determination of humane endpoint. This includes careful consideration prior to the procedure is conducted - through the review and approval process of the protocol; as well as on-going assessment and post-approval monitoring. According to *the Guide*, consideration in the protocol review process should includes rationale for anticipated or selected endpoints, as well as a timely intervention either by removal of animal from study, or euthanasia. Special consideration in determination of humane endpoint should be reliable and relevant to the model, study objective, species, institutional policy, and regulatory requirement. Therefore, involvement of IACUC along with Principal Investigator and Veterinarian are critical. Consistent with *the Guide*, in the assessment for accreditation process, AAALAC International expected institution to include humane endpoint to be clearly defined in the protocol and reviewed by IACUC for the approval. Criteria for considerations include precise definition/ parameter, frequency of observation, training of personnel conducting observation, and required response when the endpoint is reached.

Some published references either in general, study specifics, and species specific are available and can be used as resources by IACUC. In addition, pilot study can also be used to determine the humane endpoint.