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Setting sights on gunshot training

The Department of Wildlife Conservation at Great Eastern University received environmental biology and ecology grants from the National Science Foundation and other funding agencies. The associated animal use protocols often led to concerns for the school's IACUC. One issue involved euthanasia in field situations. The AVMA euthanasia guidelines¹ state that in certain circumstances shooting an animal can result in less fear and anxiety and be more rapid, painless, humane and practical than other forms of euthanasia. The guidelines also specify that shooting is to be carried out when other approved techniques cannot be used, and then by highly skilled personnel who are trained in the use of firearms.

The IACUC routinely approved euthanasia by gunshot for medium and large mammals in the field, such as skunks, raccoons, foxes, coyotes and deer. When asked to specify the training obtained for this technique, a faculty member typically wrote, "I successfully completed the state's hunter

education program." This rationale was routinely accepted; however, a new IACUC member, Dr. Kirk Stevens, noted that he was a hunter education instructor and he would never accept a certificate from a hunter education program as an indication of competency to allow for euthanasia by gunshot. In all states, he argued, hunter education training was good for life, and given that the average age of hunter education students was 12 to 14 years, it was a stretch to assume that decades-old training was still effective. In addition, Stevens noted that some states don't even require a shooting test, and those that do commonly use a .22-caliber rifle, which is often not the same type of firearm that is being used for euthanasia. He argued that accepting hunter education training to signify that a person was 'highly skilled' with gunshot as a technique for euthanasia was wrong, whether the shooting was near or at some distance from the animal.

The other committee members recognized the logic of Stevens' concerns, but

since Great Eastern had no firearm training program of its own, and the IACUC had never encountered problems with this approach in the past, the majority voted to continue the practice of accepting the hunter education program as adequate training. Larry Covelli, the IACUC chairman, later checked with the state's Department of Conservation and discovered that there was in fact a required shooting test for hunter education, but the requirement was to hit the target at least 15 out of 30 times (50% accuracy) and there was no training to assess whether a shot animal was indeed dead.

Do you think that the existing IACUC policy would be acceptable to the appropriate federal regulatory and oversight agencies? How would you approach this situation?

1. American Veterinary Medical Association. *AVMA Guidelines for the Euthanasia of Animals: 2013 Edition*. (American Veterinary Medical Association, Schaumburg, IL, 2013).

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RESPONSE

Consider the circumstances

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This question involves assessing the training and expertise of the principal investigator (PI) with regard to the use of firearms. The qualifier 'highly skilled' is not precisely defined, so its interpretation is appropriately left to the IACUC. As described, this practice has been continuing for a number of years, so the simplest and most straightforward solution is to ask the investigator about his or her proficiency and experience with firearms: how often has the technique been used over the past years and with what results? It might seem counterintuitive to seek consultation from the individual under review;

however by doing so the IACUC can gain clear, tangible and perhaps even quantifiable insight into the PI's experience with this technique. The IACUC is also well within its purview to request documentation of the PI's proficiency. Documentation can include data from previous years or targets showing shot placement. It is also worth noting for this scenario that, while a .22-caliber rifle, presumably in Long Rifle (LR), might be used in training, proficiency with such a weapon translates well to proficiency with any firearm suitable for the species listed.

A question of more importance for IACUC deliberations is whether gunshot is being used for "euthanasia" or "humane killing"? The AVMA guidelines state that "gunshot is acceptable with conditions for euthanasia of free-ranging, captured, or confined wildlife, provided that bullet placement is to the head

(targeted to destroy the brain)"¹. If the use described in the protocol meets the AVMA restriction of destroying the brain, then the animals listed are almost certainly trapped, because suitable shots on free-ranging animals the size of a skunk, raccoon or fox would be uncommon without baiting. If, instead, the investigator is using gunshot as a means of "humane killing" (anything other than a shot through the brain as described in the AVMA guidelines), the AVMA guidelines for euthanasia do not apply, as noted on page 68 (ref. 1), and an IACUC-approved departure is warranted.

The section of the AVMA guidelines on gunshot as a physical means of euthanasia is a poor fit for wildlife activities conducted in the field, and in some instances wholly counter to the safe collection of viable samples. IACUC-approved departures are not only appropriate