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Categorizing insufficient pain alleviation

Every IACUC knows Dr. Hal Hendricks. He's the researcher who tries to push the interpretation of federal regulations to the extreme, and always in his favor. He's the one who argues with the IACUC about issues that are almost meaningless to the ultimate conduct of research but can nevertheless be argued. And so it was this Friday, at the monthly meeting of the Great Eastern University IACUC. Hendricks was obsessed with the idea that a USDA Category E study (pain or distress unalleviated by drugs) would somehow make him a target of the Great Eastern IACUC and every animal rights group in the US. Therefore, he insisted that all animals in his guinea pig surgery study be considered Category D, as originally approved by the IACUC, even though some of the animals had experienced a few hours of unalleviated pain. The fault, as perceived by Hendricks, was with the school's veterinarian and the IACUC, because, he said, he had followed every detail of his approved protocol.

As told by Hendricks and confirmed by the veterinarian, he used the anesthetic and analgesic drugs and dosages recommended by the veterinarian and approved by the IACUC. The surgery was done in his laboratory by trained technicians, and postoperative drug use and clinical observations were dutifully recorded. However, the technicians did not promptly notify the veterinarian that the analgesic drug dosage did not sufficiently alleviate the postoperative pain. When the veterinarian was finally called, he quickly administered additional analgesics and told the technicians that Hendricks should notify the IACUC that the drug dose was being increased for all future surgeries under the protocol. There were no further problems after the adjustment was made.

"So what's the problem?" asked Larry Covelli, the IACUC chairman. "The problem," said Hendricks, "is that I did everything exactly as on my protocol, and now I'm being told that the first animals operated on have to be in Category E because they had pain for a few hours. I read the same Animal Welfare Act regulations you have. They say that if I use the appropriate drugs to treat pain, then the animals belong in Category D. And that's what I did. I didn't see anything that says there has to be 100% freedom from pain. In fact, I didn't see anything that even said the pain has to be alleviated. I did what I was told to do, and now I'm being punished for your mistakes. I want those animals in Category D." Covelli tried, but he could not convince Hendricks that Category E was not the catastrophe that Hendricks believed it to be.

Does Hendricks have a valid point, or is he just making a nitpicking argument? How do you think this issue should be resolved?

RESPONSE

Gap between D and E

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The exchange between Hendricks and Covelli highlights a gap in the USDA reporting requirements. Should institutions prospectively report the pain or distress category intended for a study, or retrospectively report the category based on the actual pain or distress experienced? Further, if the institution uses retrospective reporting and finds that animals unexpectedly experienced pain (with or without attempted analgesia), how should the animals be categorized if there was no prohibition to the use of analgesia?

Covelli should explain that there are requirements for the alleviation of pain in the Animal Welfare Regulations (AWRs) and other pertinent regulations. The AWRs, Public Health Service *Policy on Humane Care and Use of Laboratory Animals* and USDA Policy #11 all require that pain or discomfort be limited to that which is unavoidable and that animals showing signs of pain or discomfort are given appropriate relief, unless written scientific justification is provided in the IACUC proposal[1–3].

Hendricks first bases his case on the lack of written requirements for 100% pain relief. The regulations do, however, require that analgesia be appropriate to minimize pain. His second contention is that IACUC approval irrevocably secured his protocol in Category D. Thus, Hendricks argues that prospective categorization is appropriate, whereas Covelli contends that these animals should be retrospectively assigned to Category E. The Animal Welfare Act is worded in the past tense, suggesting that the reported category should represent the animal's actual experience, not the predicted experience outlined in the protocol[4]. Accordingly, categorization should be made independently of the positive intentions of the investigator or veterinary team. This sentiment was reflected in the proceedings of the Definition of Pain and Distress and Reporting Requirements for Laboratory Animals meeting by W. Ron DeHaven of the USDA: "We should ultimately question the effect on the animal—not so much the process, but the end result, the outcome for the animal. If the animal experiences pain and/or distress, then it needs to be put into the appropriate category..."[5]

The IACUC's decision to use retrospective reporting, as in this case, highlights a gap between Categories D and E. USDA Policy #11 defines Category D as a protocol that alleviates pain or distress by using a therapeutic agent (anesthesia, analgesia, etc.)[3]. Category E is defined as a protocol in which pain-relieving medications could not be administered due to IACUC-approved research requirements[3]. Neither definition encompasses the scenario presented here: animals prospectively