SOPs for Animal Care and Husbandry—ISU Farms and Facilities

Background

Standard operating procedures (SOPs) are written procedures or a set of practical, specific instructions about how to implement a policy or establish standardized processes without loss of effectiveness. SOPs are important for animal care and husbandry in the animal care program. As specified in the Animal Welfare Regulations (9 CFR 2.33), animal and veterinary care activities are performed under the guidance of the institutional Attending Veterinarian (AV). The Institutional Animal Care and Use Committee (IACUC) is also required to review and approve all exceptions to the Animal Welfare Act (AWA) Standards (9 CFR, Part 3) and other activities as specified in the guidelines for vertebrate species.

The *Guide for the Care and Use of Agricultural Animals in Research and Teaching* (3rd edition) further expands the recommendation for written operating procedures. “It is important to develop written policies or procedures for animal care and husbandry in the form of written operating procedures for each operating unit in the program. The IACUC must review and approve all written procedures involving the potential to cause pain and distress and should review all written operating procedures pertaining to animal care and husbandry.”

Guidance

For consistency and standardization across campus, it is recommended that consideration be given to inclusion of the following information in SOPs:

- Animal handling
- Animal immobilization
- Sedation
- Analgesia and anesthesia
- Euthanasia
- Standard agricultural practices performed (if applicable)
- Husbandry
  - Facilities, environment, and space requirements
  - Feed and water
  - Criteria of well-being
  - Signs of pain and distress
  - Temperature, water vapor pressure, and ventilation
  - Practices to ensure well-being of special strains
  - Air quality (if applicable)
  - Social environment
- Husbandry practices routinely carried out that may cause discomfort or pain
  - Justification/rationale why the procedure is needed to sustain the long-term welfare of the animals and/or the animals’ caretakers or handlers (e.g., behavioral management, to reduce regression, avoiding health problems)
  - Precautions taken to reduce pain, stress, and infection

- Emergency plan
- Animal identification procedures
- Documentation and location of research and medical records
- Vermin and pest control procedures
- Biosecurity and biocontainment practices
- Enrichment
- Zoonotic disease concerns and procedures to avoid transmission
- Transportation
- Emergency contact information including contact information for the Attending Veterinarian

The written procedures should be filed in the appropriate administrative office and in locations accessible to those individuals involved in carrying out the designated procedures and must be monitored regularly by the IACUC. The IACUC may utilize the semi-annual program review and a designated sub-committee as a means to monitor SOPs.

Standard operating procedures or blanket protocols that cover a number of procedures may not be utilized in lieu of repeating descriptions of identical procedures in multiple protocols. Federal regulatory bodies require that the IACUC review and approve activities on a project-specific basis, taking into account a number of factors, e.g., the aims of the study, consideration of alternatives, minimization of pain and distress. However, for routine aspects of research (e.g., species-specific techniques for immunization and titer determinations during antibody production), the IACUC may approve SOPs that can be cited by investigators in their protocols in order to avoid needless repetition.

References


Guide for the Care and Use of Agricultural Animals in Research and Teaching, Federation of Animal Science Societies, Champaign, IL, 2010.
