IACUC Policy 24: Adverse Event Reporting and Unexpected Outcomes

Policy Intent: The intent of this policy is to describe/define procedures associated with reporting Unexpected Events or Outcomes during use of live animals in research, teaching, or demonstration at TTU.

Table of Contents
1. Purpose
2. Definition
3. Reporting to the Veterinarians
4. Procedures
5. References

1. Purpose
This policy seeks to define both “Adverse Events” and “Unexpected Outcomes” and identifies the minimum reporting responsibilities for both animal use protocol-related and non-protocol-related adverse events. The purpose of the reporting system is to improve communication, identify adverse event trends, quantify frequencies of adverse events, focus resources on problem areas, help ensure appropriate follow-up to adverse events, and clarify and harmonize expectations between the IACUC, the PIs, and the veterinary and animal care staff, with the ultimate goal of improving animal welfare. Finally, this policy shall identify when the reporting of Adverse Events or Unexpected Outcomes will be reported to our regulatory agencies is necessary.

2. Definition
An adverse event is, for the purposes of this policy, is defined as any event which negatively impacts animal well-being, which harm or posed a threat of harm to a vertebrate animal and that meets any of the following conditions:

a. The event occurred during research-related, teaching or demonstration, but is not identified in the approved protocol.
b. Occurs at a rate or severity higher than indicated in the approved protocol.
c. The event is not research-related, but is unanticipated or due to a facility, physical plant, equipment, or personnel failure, malfunction, or mistake.

3. Reporting to the Veterinarians
When adverse events occur, adverse event reports allow veterinarians to consider whether facilities, products, procedures, or personnel should be changed.

a. It is the responsibility of the Principal Investigator (PI) to report adverse events via email, phone or in person contact to the veterinary staff within the first 12 hours. Veterinarians will determine if it should notify the IACUC and work with the researcher to develop a resolution plan to ensure the well-being of the animals by circumventing or alleviating the impact of the adverse events.
b. Examples of adverse events which must be reported include, but are not limited to:
   - Genetically modified or mutant animals that manifest a phenotype that negatively affects animal well-being;
   - Physical restraint of an animal that results in lesions, illness, or behavioral changes.
   - A surgical procedure that results in unexpected complications.
   - Morbidity or mortality rates higher than described in the protocol, regardless of the reason.
   - Failures in HVAC systems, automatic feeders, or watering systems.
   - Adverse experimental surgical outcomes that were not anticipated in the protocol.
• High levels of “cluster” morbidity or mortality, a grouping of animal illnesses or deaths occurring closely together, above anticipated incidence.
• Any unexpected animal death or injury
  ▪ Animal death or illness from spontaneous disease when appropriate quarantine, preventive medicine surveillance, diagnostic, and therapeutic procedures were in place and followed.
  ▪ Animal death or injuries related to manipulations that fall within parameters described in the IACUC approved animal care and use proposal.

c. Examples of potential resolution plan modifications which might be requested include, but are not limited to:
  • Change in anesthetic;
  • Procedural modifications;
  • More frequent monitoring intervals;
  • Additional or more timely humane endpoints;
  • Updated description of expected or likely adverse outcomes in the approved protocol.

Note: Changes in procedures will require that the PI submit a protocol amendment to the IACUC

d. Examples of adverse outcomes that are not required to be reported as an adverse event include:
  • Death or morbidity of animals described as expected in the approved IACUC protocol.
  • Mortality resulting from surgical complications anticipated in the approved protocol at or below the rate anticipated in the approved protocol.
  • Injury/illness unrelated to approved procedures and being treated by the clinical veterinarians.

4. Procedures
Reporting and reviewing responsibilities for adverse events are as follows:

a. In most cases, the veterinarians will assist in determining whether it is necessary for the PI to submit an adverse events report to the IACUC.

b. The PI is responsible for contacting the veterinary staff, in a timely fashion for any research-related adverse events.

c. If the veterinary staff determines that an adverse event or unexpected outcome has occurred, then the Adverse Event Report form should be completed and submitted to the IACUC office within 24 hours of observing the event.

d. When the adverse event is the result of noncompliance with the approved protocol, or morbidity or mortality rates are higher than described in the protocol, the PI must promptly submit an adverse event report to the IACUC.

e. The IACUC will review Adverse Event Reports at monthly meetings to identify potential problem areas or trends that merit attention. The IACUC maintains the right of approval of proposed corrective plans and may require further actions it deems necessary such as additional formal follow-up reporting, mandating protocol amendments, or even ordering a temporary cessation of animal use pending further review and information. Any actions taken or requirements made regarding a research-related adverse event will be reported to the PI by representatives of the IACUC.

f. Completed forms should be submitted electronically to the IACUC office; iacuc@ttu.edu

g. Promptly Reporting
  • Prompt reporting serves a dual purpose. It ensures we are; 1) deliberately addressing and, 2) correcting the situations that affect animal welfare.
  • IACUC reporting to regulatory agencies should be based on the following:
<table>
<thead>
<tr>
<th>MANDATORY INCIDENT REPORTING</th>
<th>USDA</th>
<th>OLAW</th>
<th>AAALAC</th>
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<tbody>
<tr>
<td>Any serious or continuing noncompliance with PHS Policy</td>
<td>USDA Incentive Program* (Call VMO to report/discuss within 5 days of the event, whether non-compliance is suspected or not)</td>
<td>PHS Policy IV.F.3.a</td>
<td>Contact promptly</td>
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<tr>
<td>Any serious deviation from the provisions of the Guide</td>
<td>Animal welfare Act 2143(b)(4)(C), Animal Welfare Regulations 2.31(c)(7)</td>
<td>PHS Policy IV.F.3.b</td>
<td>Contact Promptly</td>
</tr>
<tr>
<td>Uncorrected Significant Deficiencies from semiannual inspections and program review</td>
<td>Animal Welfare Regulations 2.31(d)(7)</td>
<td>NIH Guide Notice NOT-OD-05-034</td>
<td>In the annual report</td>
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<td>Suspension of animal research activity by the IACUC or AV</td>
<td>Animal Welfare Regulations 2.31(d)(7)</td>
<td>PHS Policy IV.F.3.c</td>
<td>Contact Promptly</td>
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<td>Any unexpected animal death</td>
<td>Contact immediately to apprise of the situation</td>
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<td>Adverse events</td>
<td>Examples of reportable situations:</td>
<td>FAQ 1.2 (promptly)</td>
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<td>• conditions that jeopardize the health or well-being of animals, including natural disasters, accidents, and mechanical failures, resulting in actual harm or death to animals;</td>
<td>• Unexpected animal deaths</td>
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<td>• conduct of animal-related activities without appropriate IACUC review and approval;</td>
<td>• Natural disasters</td>
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<td>• failure to adhere to IACUC-approved protocols;</td>
<td>• Significant animal rights activities</td>
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<td>• Implementation of any significant change to IACUC-approved protocols without prior IACUC approval as required by IV.B.7.;</td>
<td>• Inappropriate euthanasia techniques and/or failure to confirm euthanasia</td>
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<td>• conduct of animal-related activities beyond the expiration date established by the IACUC (note that a complete review under IV.C is required at least once every three years);</td>
<td>• Allegations/complaints/reports regarding animal welfare concerns</td>
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<td>• conduct of official IACUC business requiring a quorum (full Committee review of an activity in accord with IV.C.2 or suspension in accord with IV.C.6) in the absence of a quorum;</td>
<td>• Lack of veterinary care</td>
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<td>• conduct of official IACUC business during a period of time that the Committee is improperly constituted;</td>
<td>• OLAW/USDA investigations</td>
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<td>• failure to correct deficiencies identified during the</td>
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iacuc chair: phil smith
page 4 of 4

semiannual evaluation in a timely manner;
• chronic failure to provide space for animals in accordance with recommendations of the Guide unless the IACUC has approved a protocol-specific deviation from the Guide based on written scientific justification;
• participation in animal-related activities by individuals who have not been determined by the IACUC to be appropriately qualified and trained as required by IV.C.1.f;
• failure to monitor animals post-procedurally as necessary to ensure well-being (e.g., during recovery from anesthesia or during recuperation from invasive or debilitating procedures);
• failure to maintain appropriate animal-related records (e.g., identification, medical, husbandry);
• failure to ensure death of animals after euthanasia procedures (e.g., failed euthanasia with CO2);
• failure of animal care and use personnel to carry out veterinary orders (e.g., treatments); or
• IACUC suspension or other institutional intervention that results in the temporary or permanent interruption of an activity due to noncompliance with the Policy, Animal Welfare Act, the Guide, or the institution's Animal Welfare Assurance.

5. References
1) Guide for the Care and Use of Laboratory Animals (Guide), NRC, 2011.
2) Guide for the Care and Use of Agricultural Animals in Research and Teaching (Ag Guide), FASS, 2010.
3) Animal Welfare Regulations, 9 CFR, chapter I, subchapter A