

Guidance on Pain and Distress Classifications and Examples

Classification B: Animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery, but not yet used for such purposes. Examples include:

- Breeding colonies of any animal species that are handled in accordance with IACUC approval and other applicable guidance and regulations. Breeding colony includes parents and offspring.
- Newly acquired animals that are handled in accordance with IACUC approval and applicable regulations.
- Animals held under proper captive conditions or wild animals that are being observed.

Classification C: Animals upon which teaching, research, experiments, or tests will be conducted involving no or only momentary pain or distress, or use of pain-relieving drugs. Examples include:

- Procedures performed correctly by trained personnel such as the administration of electrolytes/fluids, administration of oral medication, blood collection from a common peripheral vein per standard veterinary practice or catheterization of same, standard radiography, parenteral injections of non-irritating substances.
- Manual restraint that is no longer than would be required for a simple exam.
- Tail biopsy for genotyping neonatal rodents.
- Chemical sedation for non-painful procedures.
- Euthanasia following current AVMA guidelines.

Classification D: Animals upon which experiments, teaching, research, surgery, or tests will be conducted involving accompanying pain/distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs will be used. Examples include:

- Surgical procedures conducted by trained personnel in accordance with standard veterinary practice such as biopsies, gonadectomy, exposure of blood vessels, chronic catheter implantation, laparotomy or laparoscopy.
- Blood collection by more invasive routes such as intracardiac or periorbital collection.
- Administration of drugs, chemicals, toxins, or organisms that would be expected to produce pain/distress, but which will be alleviated by analgesics, anesthetics, tranquilizers, or supportive care.

Classification E: Animals upon which teaching, experiments, research, surgery, or tests will be conducted involving accompanying pain/distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs will adversely affect the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. Examples include:

- Procedures involving pain/distress unrelieved by analgesics, such as toxicity studies, microbial virulence testing, radiation sickness, and research on stress, shock, or pain.
- Surgical and post-surgical sequelae from invasion of body cavities, orthopedic procedures, dentistry or other hard or soft tissue damage that produces unrelieved pain/distress.
- Negative conditioning via electric shocks that would cause pain in humans.
- **Note** regarding "E": An explanation of the procedures producing pain/distress in the animals with justification for not using appropriate anesthetic, analgesic or tranquilizing drugs must be provided. If proposing E procedures, do contact the campus veterinarian and complete the Classification E Justification form.

Regulatory details: USDA, through the AWAR (Animal Welfare Act Regulations), has defined its categories for pain and/or distress experienced by animals used in research, teaching, or testing. The categories are applied for covered (regulated) species (not including certain rodents, birds, and poikilothermic animals). The UCSC IACUC uses a similar B, C, D, E classification scheme in protocols that apply to all vertebrate (and cephalopod) animals proposed for use.

A simple definition of a painful/distressful procedure on an animal is "A procedure that would cause pain or distress in a human." If an animal will experience multiple procedures, it must be placed in the category indicated for the most painful/distressful procedure. A single animal cannot be placed in multiple classes.

Examples are provided for guidance. If in doubt about where animals in your study may fall, please contact the IACUC office and/or the campus veterinarian. Data from covered species are reported to the USDA annually, will be available from USDA under the Freedom of Information Act (FOIA), and are publicly available through the internet via USDA's website.