UNIVERSITY OF OTTAWA
ANIMAL CARE COMMITTEE (ACC) POLICY

ACC- 18 ANIMAL WELFARE ASSESSMENT

1. PURPOSE

The purpose of this policy is to describe the various processes in place for the regular assessment of animal welfare to meet the requirements outlined in the CCAC Guidelines: Animal Welfare Assessment. This policy is consistent with the Ontario Animals for Research Act, R.S.O. 1990, c.A22 and Canadian Council on Animal Care standards and policies.

2. RESPONSIBILITY

Animal Care Committee (ACC), Animal Care and Veterinary Services (ACVS) technical and veterinary staff, Animal Ethics and Compliance (AEC) personnel, Principal Investigator (PI) and their research personnel, and all other individuals involved with the care and use of animals.

3. GENERAL

The University of Ottawa is committed to upholding the highest standard of humane animal care and use in science through provision of optimal conditions for animal welfare.

Daily checks are performed by ACVS staff and are a component of animal welfare assessment, but regularly performed animal welfare assessments are more comprehensive and are a team approach. The assessments must consider physical condition, psychological well-being, the environment, and the impact of experimental procedures.

It has been recognized that the prevention of suffering alone does not necessarily equate to good welfare. Positive experiences and affective states are core components of quality of life and good animal welfare.

If any aspects of the animal's micro- or macroenvironment deviate from standard husbandry practices, or if deviations from normal behavior or physical conditions are to be expected in a protocol, such deviations are detailed in the approved animal use protocol (AUP) and information is kept at the room level.

4. DEFINITION

Animal Welfare: Animal welfare is a concept used to characterize the physical and mental state of an individual animal and how this animal is experiencing the conditions in which it lives.

5. PHYSICAL CONDITION

5.1. The physical condition of the animals is evaluated at least once daily by trained ACVS staff.

5.2. The specifics of the monitoring frequency for animals during an experiment are indicated in the approved AUP and record keeping is dependent on the experiment (see section 8).

6. PSYCHOLOGICAL WELL-BEING

6.1. Psychological well-being is evaluated on a daily basis by ACVS staff members with training in normal species-typical behaviours.

6.2. Abnormal repetitive behaviors or negative (maladaptive) behavior can indicate compromised psychological well-being. As such, during their daily observation, if ACVS staff note any abnormal or maladaptive behaviors, the veterinary staff will assess and recommend appropriate treatment options in consultation with research team personnel. For mice, alternatively, the research team has the option of pre-authorizing the recommended treatments for any of the most common conditions identified in mice such as barbering, food grinding, circling etc. For the latter, the veterinarian will evaluate the animal(s) on a case-by-case basis and work with the research team on a treatment plan if deemed appropriate based on animal's presentation and experimental goals.

6.3. An Abnormal Repetitive Behavior Record (MR-011) is initiated, and follow-ups are performed on a regular basis by ACVS personnel. The frequency will be determined by the technical and/or veterinary staff depending on the condition in question.

6.4. For species other than mice, a Veterinary Medical Record is created as per 8.2.1.5.

7. ANIMAL'S ENVIRONMENT

7.1. Environmental parameters (room temperature/humidity and/or rack temperature/exhaust humidity), type of primary enclosure, air changes or air flows, food levels and condition of the cage (wet bedding etc.) are evaluated daily and recorded on the "Room Inspection Log" (RIL-001) at room level. If an abnormal condition is noted, relevant SOPs are followed to remediate the issue.

8. EXPERIMENTAL PROCEDURES

8.1. The impact of experimental procedures must be considered, and humane intervention points must be applied as per ACC-2 Endpoints and Intervention for Laboratory Mammals Species.

8.2. To mitigate potential impact on the welfare of animals, below is a list of the different procedures in place.

8.2.1. At protocol evaluation, the ACVS clinical veterinarian and Animal Care Committee work with the research team to determine potential adverse effects, monitoring frequency, and humane intervention points. Depending on the experiment, monitoring documents will be developed by the veterinarian and attached within relevant sections of the AUP. The research team is responsible for completing any observation records which will be accessible at the room level (room binder) for the duration of experimental work. Training is provided to research team members to ensure competency in procedure-specific assessments.

8.2.1.1. For mouse strains possessing an abnormal phenotype, a description of the condition to be expected is detailed in the AUP and in the "Phenotype record" (MR-003 Form) kept at room level as per SOP ADM-04 Creation and Management of Phenotype Records.

8.2.1.2. In the case where a procedure is expected to cause clinical signs, the research team might be asked to complete either an "Animal Cohort weight tracking sheet (MR-006)" or other types of Animal Cohort Sheet and/or an individual "Animal Clinical Observation Record (MR-007)" as determined by the veterinarian. This is done on a protocol-specific basis.

8.2.1.3. For surgeries, "Surgical Cage Card (CC-01)" and "Animal Post-Operative Observation Record (MR-001)", if relevant, must be completed by the research team or ACVS depending on who is responsible for the post-operative care as described in the AUP and as per SOP ADM-02 Creation and Management of Animal Post-Operative Records and Cage Cards

8.2.1.4. For experiments involving irradiation, the "Animal Post-Irradiation Observation Record (MR-004)" must be completed as per SOP EXP-05 Post-Irradiation Care and Monitoring of Mice.

8.2.1.5. Spontaneous (non-experimentally related) conditions observed by ACVS staff or the research team, will lead to the initiation of a "Veterinary Medical Record (MR-002, MR-008 or MR-009)" by

ACVS and a “Vet Care (CC-02)” and/or “Supportive Care (CC-07)” card will be added to the cage card holder as per SOP ADM-05 Creation and Management of Medical Records.

8.2.1.6. A “Treatment Administration Form (MR-010)” might be used in place of “Vet Care” and “Supportive Care” cards in certain situations where an animal requires multiple treatments.

Note: ACVS staff review all the above-mentioned documents at least daily when in use for completeness and accuracy.

8.2.2. The Post-Approval Monitoring as described in ACC-19 Post-Approval Monitoring Program is another tool to assess animal welfare and improve procedures.

8.3. When appropriate, veterinarians may recommend protocol amendments be submitted for ACC review to update monitoring and endpoints as required throughout the study, based on needs identified through ongoing welfare assessments.

8.4. The clinical veterinarians track numbers of Abnormal Repetitive Behaviors, Active Medical records per condition and room, as well as mortalities on a monthly basis. An increase in any of these conditions being monitored and tracked will trigger an investigation.

8.5. In addition, a mechanism is in place to track animal incidents (events that leads to significant morbidity and/or mortality or serious /continuous compliance issues) through the Animal Incident Report questionnaire (AIR-001) which is reported to the AEC and ACC. While this process is undertaken, no new animal work using the model under investigation is allowed. The AEC works collaboratively with the research team and clinical veterinarians to gather information about the incident and identify corrective actions (e.g., enhanced monitoring/supportive care for experimental procedures, additional training, protocol amendments, etc.)

8.6. The data is summarized and presented to the ACC for further discussion on how to best identify systemic welfare risks, anticipate welfare implications, and finally base future decisions concerning the ethical care and use of animals. Where appropriate, the ACC may request that the Category of Invasiveness, baseline mortality, and/or required care and monitoring amended in the protocol.

8.7. The Category of Invasiveness (CoI) might be adjusted retrospectively to more accurately reflect the procedures performed when this is relevant to the Animal Welfare Assessment process described in this SOP.

POLICY HISTORY

DATE	NEW VERSION
March 2024	Policy creation (v1)
May 2024	Policy revised (v1)