



UNIVERSITY
OF WOLLONGONG
AUSTRALIA

Program of Veterinary Care V2024.1

UNIVERSITY OF WOLLONGONG ANIMAL ETHICS COMMITTEE

Purpose

To describe the Program of Veterinary Care for animals used in research and teaching projects approved by the University of Wollongong Animal Ethics Committee.

Background

The Australian Code for the Care and Use of Animals for Scientific Purposes 8th Edn 2013 (Australian Code) states: -

2.1.5 Institutions must promote compliance with the Code by:

(iv) ensuring availability and access to veterinary advice for the management and oversight of a Program of Veterinary Care, quality management and project design to safeguard animal wellbeing.

2.5.14 The person responsible for the overall management of a facility used for breeding and holding animals (the facility manager) must be competent, with appropriate animal care or veterinary qualifications or experience. The person providing oversight of the Program of Veterinary Care, including the care, husbandry and health of animals and biosecurity in a facility, must be competent and hold appropriate veterinary qualifications.

This document aims to meet the requirements of the Australian Code for the care and use of animals for scientific purposes with advice taken from:

- [NSW Animal Research Review Panel Guidelines for the care and housing of mice and rats in scientific institutions.](#)
- [NSW Animal Research Review Panel Guidelines for the daily checking of animals.](#)
- [Guidelines for Adequate Veterinary Care – American College of Laboratory Animal Medicine](#)
- [CALAM Standards of Veterinary Care- Canadian Association of Laboratory Animal Medicine](#)
- [Guidance for Named Veterinary Surgeons – Royal College of Veterinary Surgeons \(UK\)](#)
- [Guidelines for the Veterinary Care of Laboratory Animals – Federation of European Laboratory Animal Science Associations, European Society of Laboratory Animal Veterinarians, And European College of Laboratory Animal Medicine.](#)

Animal Ethics Committee

The UOW Animal Ethics Committee (AEC) is established in accordance with The Australian Code and comprises at least 4 people, one from each category of membership including Category A - a person with qualifications in veterinary science that are recognised for registration as a veterinary surgeon in Australia, and with experience relevant to the institution's activities or the ability to acquire relevant knowledge.

In addition, AEC meetings may be attended by



- Animal facilities staff with expertise in the care and husbandry of the animals in the facilities they represent. (ex officio)
- The Animal Welfare Officer. (ex officio).

Animal Holding Facilities

UOW has 3 main animal holding facilities on the Wollongong campus.

- B42 L4 Animal Facility
- Ecological Research Centre B70 & B71 Facility
- SMAH B35 Fish Lab

Marine Scientists and Ecologists perform animal research activities in various field locations and may establish remote field laboratories.

The Animal holding facilities should be staffed with personnel with qualifications in animal care, husbandry and biosafety relevant to the types of animals held and research undertaken.

Due to the wide variety of species that may be held, particularly for ecological research, it may be necessary to seek advice from appropriately qualified people on the care and husbandry of such species, and Standard Operating Procedures (SOPs) for the care and husbandry of those species submitted to the AEC for approval.

Animal Welfare Officer

The UOW Animal Welfare Officer (AWO) must be a registered Veterinary Practitioner with qualifications in veterinary science that are recognised for registration as a veterinary surgeon in Australia. The AWO works independently of the Animal Facilities.

The AWO is responsible for ensuring the AEC approved SOPs relating to the care and use of animals are reviewed three yearly as required by the Code. (2.2.33-2.2.36)

The AWO has oversight of the Program of Veterinary Care.

The Program of Veterinary Care should ensure that documents relating to the care and use of animals are available for routinely held species, and for less commonly held species whenever possible, covering all aspects of routine care, housing, and husbandry for the species.

These documents must be regularly reviewed to ensure continued compliance with best practice procedures for the species and may take the form of (SOPs)

The AWO may be employed in a part time capacity however arrangements for access to advice from suitably experienced veterinarians must be in place to ensure 24 hours a day, 7 days a week coverage whenever animals are held in the campus animal holding facilities or researchers are active in the field.

The AWO should regularly inspect the animal holding facilities and, with the animal facility staff, assess the well-being of animals within the facility.

The AWO should regularly inspect the monitoring records and directly observe procedures being conducted within the facilities to help ensure compliance with AEC approvals.



The AWO must ensure procedures are in place for the appropriate training and competency assessment of all persons involved in the care and use of animals. Training may be provided by animal care staff, competent researchers or independent experts. Competency assessment should, wherever possible, be conducted independently of the trainer. Records of training and competency should be kept, and copies made available to the AEC on request.

Standard Operating Procedures

The UOW AEC may consider and approve SOPs relating to the care and use of animals. SOPs must only be used or referenced in an application to use animals if they have been reviewed and approved by the AEC within the last 3 years.

The review of SOPs should ensure that compliance with best practice housing, husbandry, handling, procedures, and animal wellbeing is maintained in accordance with the Code and up-to-date, evidence-based guidelines for the species where available.

SOPs must be readily accessible within the institution to all research personnel.

Any variations to an SOP must be clearly outlined in any approved protocol.

Personnel (Facility staff and researchers) must be deemed competent to implement the SOP prior to independently implementing the SOP.

SOPs should also be developed and maintained for health screening, quarantine, biosecurity and transport of animals within and between facilities. These SOPs may be AEC approved SOPs or Facility based SOPs.

Facility-based SOPs relating to animal health and welfare must be reviewed by the AWO and/or Category A and C AEC members before approval.

Health Monitoring, Quarantine and Biosafety

The Program of Veterinary Care must include procedures for the routine health monitoring of animals housed in the University's animal facilities. This must aim to ensure that infectious agents presenting a risk to animal welfare or research quality are detected in a timely manner and excluded or eradicated wherever possible. Where applicable, these procedures must include provision for quarantine housing and health testing of animals with unknown health status.

The Program of Veterinary Care must also incorporate veterinary advice where applicable for the control of hazardous agents and genetically modified organisms to ensure the safety of personnel, animals and the environment in accordance with relevant regulatory requirements.



Monitoring of Animal Wellbeing

The Program of Veterinary Care must ensure that facility operations include at least a daily check of the animals paying particular attention to the housing environment, provision of food, water and enrichment appropriate to the species and any indicators of pain and distress in those animals. Daily checks by staff should be conducted to minimise disturbance to the animals and interference with the research being conducted.

SOPs relating to the monitoring of animal wellbeing must clearly outline the minimum frequency at which animals must be checked by members of the research group before, during and after use for scientific purposes.

In the absence of an SOP for a particular species or group of animals the AEC should request researchers perform thorough checks of animal health and wellbeing at least every 72 hours.

Protocol-specific monitoring and intervention criteria should be developed for protocols expected to impact animal welfare. These monitoring sheets should clearly identify the parameters being monitored and the intervention and humane endpoint criteria. Protocol specific monitoring criteria must be approved for use by the AEC and subjected to continual and ongoing review to ensure animal wellbeing is optimised.

Staff and research personnel should be adequately trained to assess animals against these criteria.

Protocol-specific monitoring criteria should be developed for all less commonly held species, and researchers and staff must be trained in monitoring against them. In many cases the Principal/Chief investigator will be the expert with these species, however independent external advice and training may be required.

Rodents – in the absence of protocol-specific monitoring criteria, rodents should be assessed against the UOW Animal Facility – Grading and Response Guide for Rodents (AESOPGH01 General Health Monitoring Rodents)

Other species – in the absence of species and/or protocol specific monitoring criteria any animal displaying abnormal or unusual behaviour or symptoms must be clearly identified and the Animal Welfare office notified. The AWO should assess the animal and where necessary seek advice from a veterinarian with suitable experience with the species.

Animal Monitoring System

When animals are housed within the UOW animal facilities, records of regular monitoring, including facility staff and researcher checks, must be made on the Animal Monitoring System (AMS).



Protocol-specific monitoring criteria and score sheets must be accessible within the facility. Records may be kept electronically but must be accessible to the animal facility staff, AWO and AEC.

Animals that are displaying unexpected or abnormal symptoms or behaviour should be flagged with an initial “Not OK” check on the AMS. In addition, animals that commence scoring against protocol specific score criteria for the first time should be recorded as “Not OK’ on the AMS. This results in an email being sent to AWO, all facility staff and all named research personnel as well as the Category A, AEC members. This ‘Not OK” function must not replace direct notification to the AWO or animal facility staff when indicated on the grading system or monitoring sheet.

Unexpected /Adverse events

All events that have the potential to, or that have adversely impacted animal wellbeing in a manner not anticipated in the approval for the project must be immediately reported to the Animal Welfare Officer,

The animal welfare office must notify the AEC Chair immediately if unexpected or adverse animal welfare impacts are ongoing or anticipated and the protocol may be suspended until full review by the AEC.

Diagnosis, treatment and care of sick or injured animals.

Adverse events, sickness or injuries will be handled as per approved policies, procedure and humane interventions as outlined in the approved AEC protocol. Where an unexpected adverse event occurs or where the situation lies outside the responsibilities and capabilities of the facility staff and researchers, the veterinarian will be consulted to investigate and instigate appropriate treatment and/or humane euthanasia.

For unexpected deaths or after euthanasia following an adverse event, a postmortem examination will be conducted as required by the Code. The veterinarian will provide training to the facility staff in conducting a postmortem and collection and processing of samples for pathology.

The veterinarian will interpret pathology results and may consult and liaise with specialists to ensure appropriate ongoing management and prevention of future events. Reports will be prepared for management and the AEC as required.

Humane intervention

The AWO should ensure that procedures are in place for the provision of analgesia or humane killing suitable for the species for all animals being held even where the provision of analgesia or humane killing are not anticipated in the project.



Training in the provision of analgesia or humane killing techniques should be provided to all staff and researchers responsible for the routine checking of animals.

Version control and Change History

biVersion control	Date Effective	Approved By	Amendment
V2024.1	8 August 2024	AEC	Initial document

*(V.yyyy.#)

Appendix document – AESOP GH01 General Health Grading and Response Guide Rodents





ANIMAL ETHICS COMMITTEE STANDARD OPERATING PROCEDURE

SOP No:	AESOP HG01
Title:	Health grading and response guide for rodents
Current version no.	V2024.1
Written by:	Sarah Toole AWO
Date last modified.	July 2024
Date approved by AEC:	1 August 2024
Review date:	August 2027
Related documents:	UOW AEC Program of Veterinary Care AESOP Rodent Facility Health Monitoring AESOP RA01 Rodent Analgesia AESOP HK01 Humane Killing of Laboratory Rodents AESOP HM01 Handling, Restraint and Monitoring of Mice AESOP HR01 Handling, Restraint and Monitoring of Rats AESOP BM01 Breeding and Weaning mice AESOP MR01 Breeding and Weaning rats

Contents

Purpose:.....	1
Indications:	1
Work Health and Safety.....	2
Procedure:	2
Health Grading and Response Guide.....	3
Post-procedural monitoring	9
Potential Adverse Events.....	9
Considerations and Restrictions.....	9
References	10
Version control and Change History.....	10

Purpose:

To describe the general health assessment criteria for laboratory rodents and appropriate interventions to alleviate distress and suffering.

Indications:

This grading system is intended for use by animal facility staff and researchers. Where protocol specific monitoring criteria exist the endpoints/interventions on the protocol approved criteria take priority over these



ANIMAL ETHICS COMMITTEE STANDARD OPERATING PROCEDURE

general guidelines for those categories listed. Not all conditions are covered in this guide. If in doubt as to an animal's welfare or monitoring requirement, Veterinary advice must be sought. These criteria may need adaptation for use in experimental monitoring.

This grading system is also to be used for all protocols that do not have protocol specific monitoring criteria.

Work Health and Safety

Allergic reactions: Allergies to rodents are common. Reactions may include hay fever-like symptoms, asthma-like symptoms, and itchiness or reddening of the skin. Gowns and gloves must be worn at all times when handling rodents. Face masks are available and must be worn when handling immunocompetent rodents or in any cases where the potential for transfer of infectious material between animals and people is possible.

Whenever practicable, animal cages should only be changed under a cage change hood. If you are at risk of a serious allergic reaction, you must consult a physician before commencing work with rodents.

Euthanasia solutions can be toxic, appropriate precautions must be followed

Sharps: All sharp objects (e.g., needles, scalpel blades, disposable glass items) must be placed in a purpose-designed, suitably labelled sharps container immediately after use. Needles must not be re-capped.

Procedure:

Animals should be assessed each day by facility staff, ideally during a time when the animals are most active (i.e., early morning) against the criteria in the Grading and Response Guide for Rodents.

Cage side assessments are to be performed by facility staff visualising each animal, taking note of general health and welfare indicators such as gait, posture, activity, respiratory rate and character, abdominal distension, presence of masses, discharges, wounds, changes in excretions etc.

If abnormalities are detected on the cage side assessment the facility staff must check if the animal is covered by protocol specific monitoring criteria and determine the frequency of required researcher assessments. The staff may then either contact the researcher requesting they visit the facility to assess the animal or alternatively perform a thorough assessment of the animal against the protocol specific criteria and the grading and response guide for rodents if the abnormality displayed has not been incorporated into the protocol specific criteria.

Where abnormalities not covered by protocol specific criteria are detected the actions flagged in the "response by staff" row on the UOW Animal Facility Grading and Response Guide for Rodents in this document must be followed.

For protocols without protocol specific monitoring criteria, the UOW animal facility grading and response guide for rodents must be used to assess health and welfare and the stated response by staff followed unless otherwise approved by the AWO.



UNIVERSITY
OF WOLLONGONG
AUSTRALIA

ANIMAL ETHICS COMMITTEE STANDARD OPERATING PROCEDURE

At any time when facility staff or researchers are unsure about the health status of an animal or the appropriateness of the listed intervention, they may contact the on-call AWO for assistance and/or advice.

Health Grading and Response Guide

UOW ANIMAL FACILITY – HEALTH GRADING AND RESPONSE GUIDE FOR RODENTS

This grading system is intended for use by animal facility staff. Where protocol specific monitoring criteria exist the endpoints/interventions on the protocol approved criteria take priority over these general guidelines for those categories listed. Not all conditions are covered in this guide. If in doubt as to an animal’s welfare or monitoring requirement, Veterinary advice must be sought. These criteria may need adaptation for use in experimental monitoring.

	<p align="center">Grade 1</p> <p align="center">A mild ailment or condition with no or minimal detrimental effects on animal’s overall health and welfare.</p>	<p align="center">Grade 2</p> <p align="center">An ailment with observable signs that suggests a very minor ailment or adverse effect on an animal’s health and welfare, and the animal’s overall health & welfare are still good.</p>	<p align="center">Grade 3</p> <p align="center">A moderate ailment with observable effects on animal’s health and welfare; interferes with normal functions (e.g. senses, mobility, eating, urination, or defecation); may be painful.</p>	<p align="center">Grade 4</p> <p align="center">A severe ailment where the animal is severely morbid; significant interference with normal functions; obviously painful; animal is at risk of rapidly deteriorating to humane endpoint.</p>	<p align="center">Grade 5</p> <p align="center">Animal’s health and welfare is at or beyond humane endpoint and will be euthanised. Humane endpoints as approved in protocol are considered.</p>
<p>Health Observations</p>					
<p>Response by Staff</p>	<ul style="list-style-type: none"> •Flag cage with orange sticker until cleared by Vet/AWO •AMS “not OK” record when first noticed. •No email to researchers required. •No requirement to notify AWO other than “Not OK” record <div style="border: 1px solid black; padding: 5px; margin-top: 10px; text-align: center;"> <p>Red change in monitoring</p> </div>	<ul style="list-style-type: none"> •Flag cage with orange sticker and grade. •AMS “not OK” record •Contact research team. •Contact and discuss treatment with Vet/AWO within 24 hrs <div style="border: 1px solid black; padding: 5px; margin-top: 10px; text-align: center;"> <p>Research team has 24 hrs to respond.</p> </div>	<ul style="list-style-type: none"> •Flag cage with orange sticker and grade. •AMS “not OK” record. •Contact research team email and phone. •Discuss treatment, monitoring or euthanasia with research team and AWO/Vet ASAP <4hrs •Increase monitoring to frequency appropriate to the severity of the impact and/or the risk of deterioration of the animal’s welfare” <div style="border: 1px solid black; padding: 5px; margin-top: 10px; text-align: center;"> <p>Research team has 4 hrs to respond.</p> </div>	<ul style="list-style-type: none"> •Flag cage with orange sticker and grade. •AMS ‘Not OK” record •Contact research team -Email and phone •Phone AWO/Vet •Euthanasia indicated unless condition is covered by protocol specific approvals. •Monitoring increase in compliance with protocol approvals. <div style="border: 1px solid black; padding: 5px; margin-top: 10px; text-align: center;"> <p>Research team has 2 hrs to respond.</p> </div>	<ul style="list-style-type: none"> •Email and phone research team. •Euthanise within 15 minutes OR time frame appropriate to the severity of the impact and/or the risk of deterioration of the animal’s welfare •Refrigerate carcass until lab is contacted or follow lab instructions for tissue collection. •Update number of animals in cage •Add “not ok” and euthanasia or UAE event to AMS •Notify AWO/Veterinarian <div style="border: 1px solid black; padding: 5px; margin-top: 10px; text-align: center;"> <p>Research team has 15 minutes to respond.</p> </div>

Behaviour: Activity Gait	Intermittent stereotypic behaviour (e.g., only when cage changing)	Slightly slow moving; still interested in environment.	Less interested in the environment, interacts less with cage mates, disregards observer. Occasional abnormal gait e.g., limping or “tip-toed” gait.	Isolated from cage mates, minimally active; does not readily move when cage disturbed. When nudged, reluctantly moves. Frequent limping or “tip-toed” gait.	Immobile or hyperactive; not moving when nudged; animal cannot right itself. Stereotypic behaviour that cannot be stopped & impacting health and welfare (e.g., poor body condition, lesions).
Appearance: Grooming/Fur Posture Head shape	Barbering but skin healthy.	Piloerection/ruffled (< 10% of body). Runted weanling.	Piloerection (25% of body e.g., base of neck) and dull fur (not shiny or smooth). Slight hunching in back.	Piloerection (50% of body), matted and un-groomed. Whiskers barbered. Severe hunching in back, even when walking.	Piloerection (>75% of body), matted and un-groomed with other severe signs of illness. Barbering with > 50% loss of fur and signs of inflammation. Hydrocephalus.
Skin (MUD*, wounds): Surface area Tissue damage Discharge Scratching	Some scratching but skin intact.	Mice: Body < 3 mm or Face < 1 mm. Rats: Body <5 mm or Face <3 mm. Skin red; mild hair loss.	Mice: Body < 10 mm or Face < 3 mm. Rats: Body < 30 mm or Face < 10 mm. Skin red, swollen, hair loss, some damage but dry or scabbed; possible scratching.	Skin open with signs of infection (wet discharge of blood or pus); frequent scratching of area. MUD lesions extending down to front legs.	Mice: Body > 10 mm or Face > 3 mm. Rats: Body > 30 mm or Face > 10 mm. Skin severely damaged (infected, necrotic), open to muscle or bone. Loss of body tissue or parts. Evidence of severe self-mutilation. Constant scratching (even when disturbed). Jaundice.
Eyes	Microphthalmia,(small eye) anophthalmia,(missing eye) or cataracts (opacity on lens) with no evidence of inflammation or discomfort.	Mild discharge quickly groomed away, no eyelid swelling, mild squinting (>75% open). Small pinpoint area of damage/change to cornea.	Evident yellow/white discharge around eyes, squinting (50-75% open) and eyelids or conjunctiva inflamed (red, swollen); scratching eyelids but not causing lesion. Irregular corneal surface and/or cloudy (25% of cornea) with watery eyes.	Severe yellow/white discharge that stains fur around eyes or legs, squinting (25-49% open) and inflamed (red, swollen) eyelids or conjunctiva; scratching eyelids resulting in lesions. Irregular corneal surface and cloudy (>25% of cornea) with watery eyes and squinting.	Enlarged globe or bulging eye; very damaged (rough, indented, cloudy, infected) or dry cornea; squinting (< 25% open). Severe swelling or inflammation around eyes from scratching or mass.
Porphyrin (rats only)	Occasional porphyrin	Porphyrin around nostrils.	Porphyrin around eyes, nostrils, and front paws/legs, and not groomed away.	Porphyrin on face, front paws and shoulders/back and not groomed away.	Widespread Porphyrin, no attempt to groom.

Prolapses (rectal, vaginal, penile)	Minimal exposure of tissue (< 1mm). Tissue healthy.	Intermittent prolapse but tissue healthy. Tissue easily reduced (returned to normal location). Animal can urinate and defecate.	Moderate amount of tissue exposed which requires treatment to reduce. Tissue healthy and animal can urinate and defecate.	Fully prolapsed tissue. Tissue swollen, red, or bleeding. Requires treatment to reduce and improve tissue health. Unsure if animal can urinate or defecate.	Prolapsed tissue severely inflamed, infected, necrotic or dry. Animal unable to urinate or defecate. Evidence of mutilation. No response to treatment.
Malocclusion	N/A	Mildly overgrown incisors, trimming < every 2 weeks to allow animal to eat.	Teeth very overgrown or uneven, requiring regular trimming (1-2 x per week). Vet approval needed to keep for >3 trims.	N/A	All cases of malocclusion unless approved by veterinarian for teeth requiring > 3 trims. Teeth that cannot physically be trimmed (e.g. grown into soft palate/lips).
Dehydration	N/A	Mildly sunken eyes (appear >75% open). <i>{check sipper not blocked, provide moist pellets +/- hydrogel, reassess in 4-6hrs}</i>	Skin tent > 2 seconds (decrease in skin elasticity) represents 10-15% dehydration. Sunken eyes (appear half closed). <i>{Check sipper not blocker, provide moist pellets +/- hydrogel, discuss parenteral fluids with vet, reassess in 2-4 hrs}</i>	Skin tent > 5 seconds represents 15- 20% dehydration. Completely closed or severely sunken eyes; tail feels square. Cool to touch. <i>{check sipper, provide hydrogel, provide warmth, provide warmed SC fluids at 20ml/kg until assessed by vet/researcher}</i>	Animal unresponsive and cold to touch. Severe skin tent (> 10 seconds).
Elimination: Feces Urine	Intermittent (every other day) soft faeces but formed. Hydration normal.	Daily paste-like faeces. Hydration normal.	Daily watery diarrhea with occasional formed soft faeces or increased output of urine. Small area of faecal staining around anus or mild urine scalding (wet, reddish skin). Hydration normal.	Watery diarrhea or increased urine output resulting in dehydration. Large area of faecal staining on fur or urine scalding (wet, reddish skin) or visible faecal smearing on cage wall.	Only watery or bloody diarrhea and increased urine output; unable to maintain hydration.
Respiration: Rate Rhythm Effort	Occasional bout of increased rate after activity. Regular rhythm and effort.	Subtle change in rate or effort with activity but normal at rest. Regular rhythm.	Obvious change in rate or effort with activity and at rest (see chest expansion). Occasional irregular rhythm. Small amount of nasal discharge or sneezing.	Reduced rate (easy to count) at rest and when active. Irregular rhythm. Appears to require effort (head bobs or body moves with breathing). Noisy breathing; Nasal discharge affecting breathing.	Reduced rate (≠Mice <95; Rats <75 bpm). Irregular rhythm. Gasping, struggling to breath, open mouth breathing. Skin cyanotic (blue).
Abdomen	N/A	Mild abdominal distention.	Moderate abdominal distention. Abnormal increase in BW.	Enlarged and tense abdomen or palpable mass+/- Body weight increases.	Ascites/abdominal distension where burden exceeds 10% of BW (looks full term pregnant) with other clinical signs. Abnormal body weight increase. Abdominal hernia.

Subcutaneous Masses or Tumors	Barely palpable mass. Animal otherwise healthy.	Mass Diameter: Mice 5-8 mm; Rat 8-10 mm. Animal otherwise normal.	Mass Diameter: Mice > 9 mm; Rats > 11 mm. Mild redness on skin. Location with no possibility of impairing normal bodily functions.	Mass Diameter: Mice > 17 mm (5cent) Rats > 27 mm (20c coin) Mild redness on skin. Mass in location with potential to impair normal bodily functions (anus/genitals, eyes, nose, mouth) or in high movement area (e.g. armpit).	Tumour burden: weight of tumour > 5% of normal BW. Ulceration or infection of the tumour. Tumour that interferes with locomotion or normal bodily functions (anus/genitals, eyes, nose, mouth). Persistent self-induced trauma. Invasion of surrounding tissues.
Body Weight	↓ weight by 1-4%	↓ weight by 5-9%	↓ weight by 10-14%	↓ weight by 15-19%	↓ weight by ≥ 20%
Body Condition Score (BCS)	N/A	N/A	N/A	Under conditioned BCS 2 = Segmentation of vertebrae evident. Dorsal pelvic bones readily palpable.	Emaciated - BCS 1 = Skeletal structure extremely prominent with no flesh cover. Vertebrae distinctly segmented.
Neurological Signs	N/A	Mild or occasional head tilt; occasional losses of coordination but can still move well	Seizures: Occasional of short duration (< 10 sec) and normal afterwards. Head nodding, facial or neck jerks, mouth chewing, rhythmic contractions/extensions of forelimbs and/or hind limbs with or without loss of balance. Gait: altered (e.g. hopping, wobbling, circling, wide stance and weak) but able to navigate the cage and readily access food and water.	Persistent head tilt. Seizures: Prolonged duration (minutes) and repetitive, possibly affecting ability to maintain weight or behaviour (hyperactive or aggressive). Gait: Marked abnormality (e.g. wobbling, circling, wide stance and weak), impairing ability to move and function normally.	Status epilepticus Animal can no longer navigate the cage nor maintain itself. Gait: Paralysis in 1 or more limbs. Inability to express bladder.
Pain		Facial Grimace: Narrow or closed eyes, bulge on top of nose (mice), flattening of bridge of nose (rat), cheek (between eye and whiskers) bulge (mice), cheek sunken (rat), ears back or flat, whiskers pointing back or “standing out on end”. Other: Muscle twitching or flinching, staggering, back stretch (like cat), abdominal writhing or pressing.			Persistent signs of pain that interfere with normal functions or cannot be alleviated.

In the event that the research team is unable to meet the specified timelines, the Animal Facility staff and/or AWO/Veterinarian will assume responsibility for determining the appropriate course of action for the animals. Should researchers not respond within the allotted time, animals may undergo euthanasia or receive necessary treatment as deemed appropriate. Researchers are required to promptly communicate their plan for each animal, detailing their anticipated arrival time, proposed treatment (including euthanasia, if applicable), and any required tissue collection etc.

Note: Increased monitoring of animals with poor health and welfare is the responsibility of the research team but may be delegated to facility staff with their agreement.
This guide is adapted from the UBC Facilities grading system with permission 2018.

*MUD = murine ulcerative dermatitis.

Post-procedural monitoring

Animals who score in any grade on the Health Grading and Response guide for rodents must be checked at the frequency indicated in the guide until the AWO has approved a return to normal or protocol specific monitoring intervals.

All animals found unexpectedly sick or dead must have an investigation performed to determine the cause of the morbidity or mortality. This may involve sample collection and submission for pathology.

All unexpectedly sick or dead animals must also be reported to the AWO and AEC as per the UOW AEC Unexpected /Adverse event reporting guidelines/form.

Potential Adverse Events

Not all health indicators are covered by the Health Grading and Response guide. At any time when there is concern about the health or well-being of a rodent, the Animal Facility Technical officers or the AWO should be consulted for advice and assistance.

Considerations and Restrictions

Attempts will be made to contact researchers before any interventions are administered to research animals however animal welfare must take priority.

If a research team is not contactable the facility staff or AWO performing a humane euthanasia will attempt to collect suitable samples from the animal however if research staff have not provided appropriate sampling equipment and instructions these samples may not be suitable for research purposes.

Where cage side assessments cannot be conducted due to animals being in their nest or shelter facility staff should determine if the animals have already been or will be assessed by researchers that day prior to disturbing the animals. If animals are scheduled to be checked that day the staff inspection should be delayed until the animals are disturbed by the researcher whenever possible to decrease the interruption to sleep or rest cycles.

Training and Competency

Pre-requisites:

- *Training and competency assessment may only be provided by the Animal Welfare Officer or an Animal Technician documented as competent in this procedure.*
- *Prior to training in this procedure, handlers must be recorded as competent in routine health and welfare assessment of mice and rats AESOP HM01, HM02, HR01, HR02, and HK01 Humane killing of Laboratory Rodents.*

Animal welfare considerations during training:

- *Any animal that exhibits signs of stress such as squeaking, biting or escape, must be returned immediately to its cage and not used again for that training session.*

This procedure may only be performed by:

- *Persons who have been assessed as competent under this SOP; OR
Persons working under the direct supervision of someone approved under this SOP.*

References

[UBC Animal Facilities Grading System – Accessed July 2024](#)

Version control and Change History

Version control	Date Effective	Approved By	Amendment
V2024.1	8 August 2024	AEC	Initial document

*(V.yyyy.#)