

STANDARD OPERATING PROCEDURES
DIVISION OF COMPARATIVE MEDICINE
UNIVERSITY OF SOUTH FLORIDA

SOP#: 450.4

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TITLE:	Guinea Pig Husbandry
SCOPE:	Animal Care Personnel
RESPONSIBILITY:	Facility Manager, Technical Staff, Veterinary Staff
PURPOSE:	To Outline the Proper Procedures for Receiving, Physical Examination, Evaluating Health Status, Handling, Care and Husbandry Practices Related to Guinea Pigs

I. PURPOSE

1. To ensure the highest quality of animal health and preclude the development of spontaneous diseases or disorders, which could compromise the integrity of studies and the interpretation of results.
2. To ensure personnel handling guinea pigs perform their duties in a manner that complies with all current governing laws, regulations and guidelines.

II. RESPONSIBILITY

1. The Veterinarians oversee all aspects of animal health, and are assisted by all program staff.
2. Facility Managers ensure implementation of all procedures.

III. PROCEDURES

1. **Receipt:**
 - a. Individual cage cards are prepared for each animal and include the following information:
 1. Investigator
 2. IACUC #
 3. Species
 4. Sex
 5. DOB (or age on arrival if unavailable)
 6. Body Weight
 7. Arrival Date
 8. Source
 9. Animal Number
 - b. Animal Medical Records are required for all animals, and can be maintained as either individual medical records or as colony records: (**see SOP #012** entitled, **Animal Medical Records**)
 - c. Shipping crates are inspected for signs of damage and shipment accuracy.

- d. Technicians will notify the Facility Manager regarding any damage to crate or contents.
- e. Facility Managers will notify the Fiscal and Business Specialist of damaged or rejected shipments, or orders improperly filled (i.e., weight, age, number requested).
- f. Clinical Veterinarians will be immediately notified of health concerns or deaths occurring in transit.
- g. Shipping containers are lightly sprayed with Oxivir Tb™ and taken to the housing room.
- h. Animals are placed in cages according to the *Guide for the Care and Use of Laboratory Animals* recommendations.
- i. Animals are observed for signs of illness or any abnormality.
- j. Number of new animals and new cages are recorded on the **Per Diem Sheet** and **Progress Notes** located in the **Room Log Book**. Notation in the **Progress Notes** will include the vendor source and a statement reflecting general appearance on arrival.

2. Handling and Restraint:

- a. Guinea pigs seldom bite. In general, they are timid and will usually make an effort to try to escape, but become accustomed to repeated handling.
- b. Removal from home cage:
 1. To pick up a guinea pig either place hand dorsally over the shoulder area or ventrally under thorax with thumb and forefingers directly behind the front legs.
 2. Use the other hand to support the animal's hindquarters.
 3. Care should be taken not to apply too much pressure to the thorax to avoid compromising respiration.
 4. Do not attempt restraint by solely grasping the skin.
- c. Transport
 1. Guinea pigs can be transported in clean shoebox caging.
- d. Restraint
 1. Guinea pigs can be restrained by securely wrapping with a small towel and/or by holding against your body to reduce struggling.

3. Feeding and Watering:

- a. Refer to **SOP #022** entitled, **Feed and Bedding** for approved diets **NOTE: procedures below are not for animals on special diets or water**. Special diets must be described in an approved IACUC protocol (e.g., type, amount, and form).
- b. Feeding:
 1. Guinea pigs are fed a commercial guinea pig diet, containing Vitamin C, *ad libitum* daily
 2. J feeders are used to hold the animals feed to prevent contamination with urine and feces.
 3. Additional food items may be offered as enrichment and as supplements of Vitamin C when approved by the PI.
 4. Feeders are sent to cagewash for weekly sanitation.
- c. Watering:
 1. Water is provided *ad libitum* by way of water bottles or a drinking valve (e.g., lixit).

2. Lixits are checked daily to ensure water is available.
 3. Water bottles are replaced each morning, and checked for adequate supply each afternoon. When water bottle levels are low or water is contaminated with feed, water bottles are replaced.
 4. Sipper tubes are changed when water bottle is changed.
 5. Water bottles, sipper tubes and stoppers are sent to cagewash daily.
 6. Weekly, flush automatic watering zones, by opening the flush valve outlet below each drinking valve (e.g., lixit) and at the end of a zone (if applicable) and allow the waterline to flush at maximum flow for approximately 5 minutes.
- d. Note: Guinea pigs will imprint their food and water type and if a change in diet is needed, a transition to new diet is recommended.

4. Enrichment

- a. Guinea pigs are social animals and should therefore be maintained in groups or pair housed unless justified in writing and approved by the IACUC.
- b. Environmental enrichment is required for all single housed animals, and is recommended for multiple housed animals.
- c. Fresh fruits and vegetables can be used as enrichment as well as a Vitamin C supplement.
- d. Any environmental/diet changes made must be communicated to and approved by the researcher prior to implementation.

5. Health Surveillance:

- a. Each housing room is assigned to an Animal Care Technician. Daily observations of the Animal Care Technician are recorded on the **Room Status Sheet** within the **Room Log Book**.
- b. Surveillance frequency:
 1. On weekdays health surveillance will occur twice per day, prior to 9:30 AM, and again about mid-afternoon.
 2. On weekends and holidays the initial health surveillance should take place upon the arrival of the Animal Care Technician, and again just prior to completing their assigned shift.
- c. Observations and communications must be noted on the **Room Status Sheet** and the Facility Manager's **Animal Health and Environmental Concern Form**.
- d. Performance of daily observations and general health surveillance
 1. Each animal/cage is observed to evaluate:
 - a. Food and water intake
 - b. Urine and fecal output
 - c. Assurance of water supply and patency
 - d. General appearance (presence of lesions/injuries, coat condition, disposition)

NOTE: If at any time there is a medical emergency, the Clinical Veterinarian must be notified immediately.

- e. Colony medical records must include, at a minimum, weekly entries made by the research staff in the **Progress Notes**, which at least summarize the following for the colony:

1. An impression of overall condition
2. Food and water intake and voidings
3. Any clinical abnormalities or complications
4. Any treatments administered in response to observed abnormalities
5. Any experimental procedures

NOTE- Whenever health status/observations for an individual animal differ from colony animal's health status/observations, an entry specific to that animal must be made in the colony records.

- f. Refer to **SOP #006** entitled, **Animal Health and Environmental Surveillance** for specific procedures of reporting and recording health concerns.

6. **Cage Changing:**

- a. Caging and or bedding are changed at least 3 times per week.
- b. Cage changing will be performed on Monday, Wednesday, and Friday in the animal room. All cage changes will be noted on the **Room Status Sheet**.
- c. Any caging excessively soiled will be changed as often as necessary to maintain an acceptable level of sanitation.
- d. Wire bar lids, environmental enrichment devices, and shelf/rack units will be changed a minimum of every other week. These changes will be noted on the **Room Status Sheet**.
- e. Social housing caging units are sent to cage wash weekly for sanitation.

7. **Room Duties:**

- a. Upon completion of cage changing, feed and watering, and daily health surveillance, the following tasks are to be performed: (Room duties described below are minimal requirements, additional duties and frequencies are at the Facility Manager's discretion)
 1. **Daily** - complete **Room Status Sheet** by recording:
 - a. Minimum and maximum **room temperature** and **humidity** (measurements out of the acceptable range are described under the **Health and Environmental Concern** column of the **Room Status sheet** and reported to the Facility Manager via the **Health and Environmental Concern Form**).
 - b. **Feed** and **water** are available.
 - c. **Husbandry duties** (e.g., caging/equipment changes/procedures performed).
 - d. **Housekeeping duties** (e.g., room duties/procedures performed).
 - e. Significant **health or environmental concerns**.
 - f. **Time** of observation and the **initials** of technician.
 2. Assure no investigator's supplies or trash is left in the room.
 3. **Check and replenish supplies** (e.g., soap, paper towels) as needed.
 4. Wipe down counter/sink areas with Oxivir Tb™
 5. Assure any new arrivals are recorded on **Per Diem Sheet**.
- b. Floors are to be **swept and mopped** Monday, Wednesday, Friday or when excessively soiled.
- c. **Weekly room duties** include:

1. Flush automatic watering zones, by opening the flush valve outlet below each drinking valve (e.g., lixit) and at the end of a zone (if applicable) and allow the waterline to flush at maximum flow for approximately 5 minutes.
 2. Sanitize lixits with Oxivir Tb™ and thoroughly rinse/flush after the appropriate contact time.
 3. Sanitize mop head.
 4. Sanitize enrichment items.
 5. Wipe down door and doorframe with Oxivir Tb™
 6. Physically count animals within the room.
- d. **Semi-monthly room duties** include:
1. Sanitize all room cleaning equipment (e.g., mop, mop bucket, broom, dust pan, feed pan, etc.).
 2. Check/clean HVAC vents and replace air filters as needed.
- e. **Monthly room duties** include:
1. Confirm diurnal light timers are accurately controlling animal room lights (HOBO) and record.
 2. Wash walls with Oxivir Tb™ as needed.

Approved:

Date: