

STANDARD OPERATING PROCEDURES
DIVISION OF COMPARATIVE MEDICINE
UNIVERSITY OF SOUTH FLORIDA

SOP#: 300.5

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Page 1 of 6

TITLE: Dog 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 Dogs

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 dogs 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.
3. Animal care staff are responsible for the implementation of this procedure.

III. PROCEDURES

1. Upon receipt of newly arrived animal, including those prepared for transfer to other facilities:
 - a. Shipping crates (if applicable) are inspected for signs of damage and shipment accuracy.
 - b. Technician will notify the Facility Manager regarding any damage to crate or contents.
 - c. Facility Manager will notify the Program Assistant of damaged or rejected shipments, or orders improperly filled (i.e., weight, age, number requested).
 - d. Clinical Veterinarian will be immediately notified of health concerns or deaths occurring in transit.
 - e. New animals are recorded on the *Per Diem Sheet* located in the *Room Log Book*.
2. Individual **cage cards are prepared** for each animal and include the following information:
 - a. Principal Investigator
 - b. IACUC #
 - c. Species
 - d. Sex
 - e. DOB (or age on arrival if unavailable)
 - f. Body Weight

- g. Arrival Date
 - h. Source
 - i. Animal Number
3. Individual **Animal Medical Records** are prepared for each animal, to include: (see **SOP #012** entitled, **Animal Medical Records**)
 - a. **Arrival Status Sheet** CMDC #008
 - b. **Progress Notes Form** CMDC #013
 - c. New animals are recorded on the **Monthly Per Diem Sheet** CMDC #175 and on a **Progress Notes** form CMDC #013 located in the **Room Log Book**
4. **Physical Examination**
 - a. **A physical examination (PE)/general health evaluation is performed** by the veterinary staff, or animal care staff, within 24 hours of arrival. (unless animals appear to be in good health and will be used in terminal procedures within 24 hours).
 - b. Dog is removed from home cage and examined. Observations are recorded on the **Arrival Status Sheet** CMDC #008. The following parameters will be observed and recorded:
 1. ID number (if any) and or description
 2. Weight
 3. Body Temperature
 4. Heart or Pulse Rate
 5. Respiration Rate
 6. Capillary Refill Time
 7. Nails (trim if necessary)
 8. Teeth
 9. Ears
 10. Eyes
 11. Skin/Coat Condition
 12. An Impression of General Attitude and Condition
 13. Any Treatments Implemented
 - c. A notation of PE having been performed is placed on the **Progress Notes** CMDC #013 for each animal.
5. **Handling and Restraint**
 - a. Dogs should be handled using a leash.
 - b. To pick-up a dog place arms around legs and stand up remembering to lift with your legs and not your back.
 - c. To restrain for manipulations/treatments (e.g., nail trims, bleed withdrawal, and injections) place the dog on a table and position it in sternal recumbency. Place one arm up around the upper chest/neck area, and grip the muzzle with that hand to position/restrain the head; the other arm is used to position/restrain the body and or legs in the desired position.
6. **Environmental Enrichment and Social Housing**
 - a. Appropriate social interactions among members of the same species and enrichment of the animal's environment are essential to normal development and well-being.
 - b. **All dogs receive environmental enrichment**, unless an exemption has been approved in writing by the IACUC.

- c. Each animal will have a minimum of one enrichment device, either suspended inside the cage or on the floor inside the cage (e.g., flexi keys, rattle triangles, suspended plastic apples, Kong® toys on chain).
- d. Any environmental changes made must be communicated to and approved by the researcher prior to implementation.
- e. **Single-housing of dogs should be the exception** and should be justified based on experimental requirements or veterinary-related concerns about animal well-being.

7. Feeding and Watering

- a. Refer to **SOP #022** entitled, **Feed and Bedding** for specific 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. All dogs are fed twice a day.
 - 2. The amount fed is based on the dog's age, size, and level of activity.
 - 3. Canned dog food may be offered as enrichment or to entice finicky eaters when approved by the PI.
 - 4. Feed bowls are sent to cage wash for sanitation on an as needed basis depending on type of dog food used, but at least weekly.
- c. **Watering**
 - 1. Water is provided *ad libitum* by way of a water bowl or by a drinking valve (lixits).
 - 2. Lixits are checked daily to ensure water is available.
 - 3. Water bowls are dumped, refilled each morning, returned to same cage, and checked for adequate supply each afternoon.
 - 4. Water bowls are sent to cage wash for weekly sanitation.
 - 5. Sanitize lixits weekly, and prior to occupancy, with Clidox-S and thoroughly rinse/flush after the appropriate contact time.

8. 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 CMDC #077 and the Animal Health Concerns Form CMDC #155**.
- d. Performance of daily observations and general health surveillance:
 - 1. Each animal/cage is observed to evaluate the following:
 - 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 is to be notified immediately.

- e. **Weekly notation is made in the *Progress Notes*** regarding animals overall status/condition. (Note: BAR = bright, alert, responsive is an acceptable entry)
- f. Health evaluations are performed monthly by either Veterinary or Animal Care Staff and the results recorded on a ***Monthly Health Evaluation*** label (see 2.a. above for parameters) and placed in the ***Progress Notes*** form in the animal's medical record.
- g. **Physical examinations are performed by Veterinary Care Staff** as needed, and at least every six months and the results are recorded on a ***Physical Examination*** label and placed in the ***Progress Notes*** form in the animal's medical record.
- h. Refer to **SOP #006** entitled, ***Animal Health and Environmental Surveillance*** for specific procedures of reporting and recording health concerns.

9. **Cage Cleaning**

- a. Stationary Kennels – Center for Advanced Medical Learning & Simulation (CAMLS) Room 141 & 147.
- b. N95 mask and face shield are recommended when power washing and/or spraying kennels.
 - 1. **Daily-**
 - a. Start at the kennel farthest from the floor drain.
 - b. Open sliding door to the adjacent kennel and move animal out of the enclosure to be cleaned.
 - c. Turn on floor trough flush by opening gate valve.
 - d. Hose down the empty kennel to remove animal waste.
 - e. Clean kennel floor, room floor, and floor trough (e.g., by lifting each individual flooring panel and hosing waste towards trough and trough drain).
 - f. Clean Lixits® with a scrub brush or pad.
 - g. Clean feeders with a scrub brush or pad.
 - h. Return animal to clean kennel.
 - i. Only one animal and its cage card will be moved at one time.
 - j. Repeat procedures for each kennel to be cleaned.
 - k. After all kennels have been cleaned, and floor trough is clean, turn off flush gate valve.
 - l. Squeegee floor dry.
 - 2. **Weekly-**
 - a. With each active kennel emptied of animals, pen wall panels, floor panels, feeders, and lixits are cleaned and then sanitized in place using a scrub brush or pad, a sponge mop, a degreasing cleansing solution (e.g., KrudKutter, PRL Grease-free), a disinfectant (e.g., Clidox-S, Sporicidin, Virkon), and thoroughly rinsed
 - 3. **Disinfection**
 - a. Active rooms are disinfected quarterly. The entire room, all pen floors (including underside), walls, doors, Lixits, room floors, walls, and floor troughs are thoroughly disinfected using pressure and a degreasing cleansing solution (e.g., KrudKutter, PRL Grease-Free) and a disinfectant (e.g., Clidox-S, Sporicidin, Virkon) and thoroughly rinsed.

- b. Record "Room Disinfected" for the corresponding date on the **Room Status Sheet** and initial.

c. **Portable Kennels**

1. **Daily**

- a. Start at the kennel farthest from the floor drain.
- b. Remove all piles of animal waste from the floor.
- c. Move dog outside the kennel, to another kennel, and clean the kennel using the hose, and scrub brush if needed, taking care not to wet animals.
- d. Squeegee floor dry.
- e. Move dog back to clean kennel and repeat steps.
- f. Rinse floor drain.
- g. Change or rinse and refill water bowls according to schedule.
- h. Squeegee remainder of floor.

2. **Disinfection**

- a. Active rooms are disinfected quarterly, the entire room, all pen floors (including underside), walls, doors, Lixits®, room floors, walls, and floor troughs are thoroughly disinfected using pressure and a degreasing cleansing solution [e.g., KrudKutter, PRL Grease-Free] and a disinfectant [e.g., Clidox-S, Sporicidin, Virkon] and thoroughly rinsed.

3. Record "Room Disinfected" for the corresponding date on the **Room Status Sheet** and initial

10. **Exercise**

- a. Dogs over 12 weeks of age, housed individually in enclosures that provide less than two times the required floor space per dog, (length from nose tip to base of tail in inches, plus 6 inches, squared, divided by 144 = required floor space in sq. ft. /dog, *Animal Welfare Act section 3.6, c, 1*), are provided additional opportunities for exercise, a minimum of three times a week, for a period of no less than 60 minutes each session.
- b. For each exercise session, a dog(s) is removed from its cage and released into an otherwise empty run or room (as above, greater than twice the sum of the minimum floor space required for the individual dog by the *Act, 3.6,c,1*).
- c. Whenever possible, dogs are to be exercised with a compatible dog(s) of the same sex from the same room, to afford the opportunity for social interaction.
- d. Staff is encouraged to observe, and to positively, physically interact with the dog(s) during the exercise session, to further facilitate socialization. If circumstances cause an individual dog not to have sensory contact with another dog, it is provided with daily positive, physical contact with members of the staff.
- e. A written log of all exercise sessions is kept, and indicates the animal's identification number, room of origin, and the entry and exit times from the exercise room.

11. **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.
 - g. If no animals are present on this day, record "No Animals Present" and initial.
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 Sporicidin.
 5. **Assure any new arrivals are recorded on Per Diem Sheet CMDC #175 and on a Progress Notes form CMDC #013 located in the Room Log Book.**
- b. **Weekly complete Room Status Sheet by recording:**
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 in occupied rooms with Clidox-S and thoroughly rinse/flush after the appropriate contact time.
 3. Environmental enrichment devices and all room cleaning equipment (e.g., mop, broom, mop bucket, brushes, dust pan, squeegee, etc.) are sanitized in place by pressure/hand washing using degreasing solutions and disinfectants (CAMLS) or sent to cage wash for cleaning/sanitization (COM).
 4. Wipe down door and doorframe with Sporicidin.
 5. Physically count animals within the room.
- c. **Monthly complete Room Status Sheet** by recording :
1. Clean HVAC vents and replace air filters when present.
 2. Confirm diurnal light timers are accurately controlling animal room lights (HOB0) and record.
 3. Wash walls with Sporicidin as needed
- d. **Quarterly**
1. Disinfect all rooms that have been active during the past quarter.
 2. Sanitize water recoil hoses

Approved:

Date: