

FINAL VERSION -

Protocol Number:

TITLE OR SUBJECT: Feline Receiving, Quarantine, and Conditioning
Protocol

Authors: Robert C. Dysko, Howard G. Rush, and Amy (Gilardy) Andrews

Approved by:

R. Dysko
H. Rush
D. Ringler
G. Day
J. Decoster

DISTRIBUTION:

Faculty: Brieland, Crisp, Danneman, Dysko, Ringler, Rush
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Principal Investigators: All Investigators Using Cats

REASON OR PURPOSE FOR PROTOCOL:

To define the standard operating procedures for receiving, processing, housing, conditioning, and quarantine of cats for use in research.

PROCEDURE:

**I. Sources and Appropriate Use of Non-Conditioned
and Conditioned Cats**

A. Non-Conditioned (Acute) Cat

1. A random source cat that has not been vaccinated for diseases or treated for parasites. This type of cat is clinically normal upon arrival at the University but

may be incubating infectious diseases which may be manifested clinically during the experiment.

2. A non-conditioned cat should be used only in a short-term experiment not involving anesthesia, or in an experiment involving anesthesia from which the animal is not permitted to recover. Non-conditioned cats should not be used in experiments in which recovery from anesthesia is planned. Generally, non-conditioned cats should be used within five days after arrival at the University. Investigators should make every effort to use non-conditioned cats within this time frame. Short-term survival studies may be conducted on non-conditioned cats with prior UCUCA approval; requests for these studies should be addressed in the Form 8225.

B. Conditioned (Chronic) Cat

1. Random Source: A random source cat that has been held for a minimum of 30 days, is clinically normal, was vaccinated as indicated below, and is free of parasites, is considered to be conditioned. This type of cat, while somewhat better than a non-conditioned cat, may still develop clinical infections, most often during the first 6 months after arrival.
2. Purpose-bred: Cats raised specifically for use in biomedical research also may be used as conditioned cats. They are generally obtained from commercial vendors or from research colonies. These animals are clinically normal and free of parasites.
3. Conditioned cats are intended for use in experiments in which recovery from anesthesia is planned, such as recovery surgical procedures, and for all long-term experiments not involving anesthesia or surgery.

II. Arrival

A. Examination - Non-Conditioned and Conditioned Cats

1. Incoming cats are examined upon arrival by a veterinary technician. Any cat which appears systemically ill will be rejected at the dock. Signs of systemic illness in cats include oculonasal discharge, sneezing, coughing, diarrhea, dehydration, and/or severe skin lesions. Any animal with mild or localized signs of disease that is not so ill as to warrant rejection may be accepted at the dock, but an Animal Treatment Report (ATR) must be generated for that cat, and the clinical veterinarian notified so that a thorough clinical examination can be performed. Similarly, the investigator who owns such animals must be contacted by the veterinary technician. All cats with mild or localized signs will be reevaluated by the veterinary clinician every 24 hours, and a decision of whether or not to institute appropriate treatment will be made after consultation with the investigator. Conditioned cats will be given a more thorough examination within 48 hours after arrival (see III. B. 1.)

2. Any cat which develops clinical illness after arrival will be treated appropriately after consultation with the investigator. If treatment of incoming cats is authorized, a regimen appropriate for the clinical disease should be selected. Generally, antibiotics, and occasionally fluid therapy, are necessary. If respiratory signs are evident, the animal's nose and eyes should be kept clean by daily removal of dried discharge with an emollient or warm water and a gauze sponge.
3. Purpose-bred cats may be transported directly to their permanent housing location without initial inspection by the veterinary technicians. The veterinary technicians should be notified of their arrival. Processing of these purpose-bred conditioned cats should proceed as listed in section III. B.

B. Identification - Non-Conditioned and Conditioned Cats

1. The weight, sex, and USDA number will be recorded on the animal's cage card. All cats will wear a collar. The USDA number, or a ULAM clinical number if the cat has no USDA number, will be engraved on a tag on the cat's collar (Alternatively, if an investigator specifically requests it, the collar can remain on the animal's cage door rather than on the cat, although the collar must always accompany the cat should the cat be moved).

C. USDA Paperwork - Non-Conditioned and Conditioned Cats

1. At the time of arrival, the veterinary technician will complete the appropriate USDA paperwork, which includes the date of arrival, verification of those cats that were accepted by the University and those that were rejected, and signature.
2. For conditioned cats, the USDA number is recorded in the Logbook for clinical number assignments. This is the means by which conditioned cats are cross-referenced between their USDA number and their ULAM clinical number.
3. If a purpose-bred conditioned cat is delivered directly to its permanent housing location, the USDA paperwork is forwarded to the appropriate veterinary technician to assure its completion and further distribution.
4. Upon completion of the USDA paperwork, all copies are forwarded to the ULAM Animal Ordering Clerk for filing and proper distribution.

III. Processing

A. Non-Conditioned Cat Processing

1. There are no standard health care procedures for non-conditioned cats, other than the examination at the time of receipt. ULAM has found that the most cost-effective means of handling these animals is to encourage their use in terminal experiments within five days after arrival. The low cost of these cats is directly

attributable to their unknown health status; thus no guarantees are provided for such animals.

2. Non-conditioned cats will be treated for disorders under the following circumstances:
 - a. The investigator wishes to have the animal treated. The investigator pays for the cost of treatment.
 - b. The investigator wishes to convert the animal to a conditioned cat, in which case the cat is initiated on the cat conditioning protocol as detailed in section III. B.
 - c. The treatment of non-conditioned cats is necessary for the health of other cats in the facility, or to prevent the spread of a zoonotic disease (e.g. sarcoptic mange).
3. Conditioning process for non-conditioned cats
 - a. ULAM will take non-conditioned cats through the conditioning process. This process involves all of the steps noted in section III. B. for processing conditioned cats, plus a 6-week quarantine. The veterinary technicians will be responsible for the conditioning and screening procedures.
 - b. Non-conditioned cats that remain in the facility for two weeks are automatically included in the cat conditioning program. The veterinary technicians will inform the investigator, vaccinate the cat, and check it for parasites.
 - c. Individual non-conditioned cats may be conditioned at the investigator's request.

B. Conditioned Cat Processing

1. Quarantine: Cats undergo a quarantine period because of the possibility that they may have become infected with one of the causative agents of feline respiratory illness during shipment, or were latent carriers of one of these agents, with disease expression stimulated by the stress of transport. Cats arriving together from the same vendor should be housed separately from other cats at the University for the period of the quarantine. The quarantine period provides the cat with a stabilization period after shipment, enables completion of all vaccination and deworming procedures, and helps prevent transmission of any of these agents to other University cats. It also allows ULAM to reject the cat for any medical conditions not detected upon arrival, and receive a possible refund from the vendor.
 - a. **Purpose-bred cats**: Purpose-bred cats can be housed immediately in their permanent room; thus there is no official quarantine. These cats should not be used in experiments for **2-3 days**, however, to provide an

acclimation period for recovery from transportation. When possible, purpose-bred cats should be housed separately from other conditioned cats, as the purpose-bred cats may have been raised free from certain viral pathogens (instead of vaccinated), and thus be susceptible to viruses that the conditioned cats may carry latently.

- b. **Random-source conditioned cats:** Quarantine time shall be **2 weeks**.
- c. **Random-source cats to be conditioned:** Quarantine time shall be **6 weeks**. This does not include time spent housed with other non-conditioned cats. During this quarantine the cats will be processed just as conditioned cats are upon receipt; see Section III B. 2-4 below for detailed procedures.

Any outbreak of disease may necessitate a longer quarantine period. The clinical veterinarian is responsible for releasing cats from quarantine upon completion of the holding period.

- 2. Physical Examination: Conditioned cats are given a thorough physical examination within 48 hours after arrival. Medical charts for conditioned cats are initiated by the veterinary technician at the time of this thorough examination. A ULAM Clinical Number is assigned to the cat at this time. The cat's arrival weight, sex, and USDA number, which were noted on the cage card on the day of arrival, should also be noted in the medical chart.
- 3. Parasite Control:
 - a. Random-source conditioned cats will be treated upon arrival with ivermectin @ 200 mcg/kg SC. Purpose-bred conditioned cats will be treated only if their medical history indicates that such treatment would be necessary.
 - b. A fecal sample from all conditioned cats will be obtained by the veterinary technicians 1 month after arrival. This sample will be tested by fecal flotation for the presence of parasite ova.
 - c. Those cats with a positive test result will be retreated with ivermectin (2 doses, 2-3 weeks apart), or an appropriate anthelmintic as prescribed by the clinical veterinarian.
 - d. Conditioned cats with a negative fecal examination will be reevaluated every 6 months. Fecal samples from cats which were initially positive should be resubmitted 1 month after the latest treatment was given. Cats with negative fecal exams at that time will be reevaluated every 6 months for intestinal parasites. Cats with positive fecal exams will be retreated.
 - e. Conditioned cats will be treated for fleas only if they are detected on the animals after arrival. Cats will be treated for other ectoparasites (including ear mites) only if they are seen on the animal after the initial ivermectin treatment. After permission is granted by the investigator, the

cats will be treated as appropriate (sprayed, dipped, or cleaned) by the veterinary technicians.

- f. The investigator **must** be contacted prior to **any** treatments subsequent to the routine in-processing (initial ivermectin and vaccinations) and permission for the specific treatment must be obtained.

4. Vaccination:

- a. The veterinary technicians will vaccinate all healthy adult random-source conditioned cats for rhinotracheitis virus, calicivirus, panleukopenia virus, and *Chlamydia psittaci* within 48 hours after arrival.
 1. If the random-source conditioned adult cats were vaccinated for these agents by the supplier (kennel, breeder), booster vaccinations will be administered at yearly intervals
 2. If the vaccination history is unknown, adult cats will be revaccinated in 3-4 weeks, and then at yearly intervals.
 3. If the random source conditioned cats are estimated to be **less than four months old**, they will require multiple vaccinations. These vaccinations should be three weeks apart, the earliest being at 6 weeks, and the last being after 4 months. At least two vaccinations must be administered. The first vaccination should be given within 48 hours after arrival.
- b. When the vaccination history is clearly known (e.g., purpose-bred conditioned cats), and is deemed satisfactory by the clinical veterinarian, the veterinary technician will vaccinate the cats at yearly intervals based on the last recorded vaccination.
- c. Purpose-bred cats which are raised free from certain viruses and **NOT vaccinated** for them (**SPF**), should **NOT** be vaccinated for those pathogens while at the University, **UNLESS** they cannot be housed separately and must be housed with vaccinated random-source conditioned cats. In such cases vaccination should be considered, and a vaccination plan should be designed on an individual basis, in conference with the investigator.

5. Antigen/Antibody Testing:

- a. Blood samples will be obtained from all random-source conditioned cats, and cats to be conditioned, to assess for Feline Leukemia Virus (FeLV) and Feline Immunodeficiency Virus (FIV). Purpose-bred cats will also be sampled if their status regarding these viruses is unknown. Cats which have the antigens of, or antibodies to these viruses will not be rejected outright, however information on these diseases will be provided by the clinical veterinary resident to the investigators so that they can decide the impact that these pathogens might have on their research project. As such, some investigators may deem it necessary to exclude cats with

evidence of these viral infections from their studies. The cost of this serum testing will be borne by the investigator as part of the cost of routine in-processing.

- b. Antibodies to Feline Infectious Peritonitis (FIP) will not be assayed because of the inability of current tests to distinguish FIP from enteric coronaviruses, and because antibodies to FIP indicate exposure to the virus and not probable disease.

IV. Housing

- A. Non-conditioned and conditioned cats should not be housed in the same room, and conditioned cats in quarantine should be housed separately from cats already housed at the University. When possible, cats should also be separated by vendor source. Conditioned cats which have been rejected because of possible infectious disease can be housed with non-conditioned cats as they await reshipment to the vendor.

V. Costs

- A. In general, the individual investigator pays for the cost of conditioning and for treatments. See also the ULAM protocol entitled "Standard Procedures for Recharges to Investigators."

VI. Permission for Treatment

- A. After initial routine in-processing, permission of the investigators is required for **all** treatments.
- B. For non-conditioned cats, if it is determined that an illness warrants treatment to make the animal comfortable, the veterinary technician will notify the investigator of the animal's illness and encourage use in a terminal experiment within 24 hours. If the animal cannot be used experimentally, the alternatives are institution of appropriate medical treatment, or if the animal's condition is poor enough, euthanasia without experimentation. The 24-hour rule does not apply, however, to mildly ill animals observed on the weekend - the laboratory will be given 24 hours from the time of contact, or until Monday afternoon, whichever is later.
- C. The investigator must be notified of the treatment plan so that they can assess whether or not it introduces unacceptable experimental variables. The investigator must also be informed that they will bear the cost of any treatments (including technician time). All animals to be treated should be moved to individual cages when possible. When possible, an understanding of treatment possibilities for the animals belonging to a

given investigator should be achieved beforehand. This will enable prompt care of the animals belonging to that investigator, especially on the weekends and holidays