

## ***Rabies Testing of Animals:***

### **Protocol for Submission of Bat Specimens for North Carolina State Laboratory of Public Health Rabies Testing**

**Purpose:** To provide guidance and a directive for North Carolina Animal Control officials, Local Health Departments, environmental health officials, veterinarians and other state agencies for appropriate submission of bat specimens for rabies testing and for human bat exposure assessments.

**This document was developed by NC Department of Health and Human Services (DHHS), Division of Public Health (DPH):**

#### **Epidemiology Section**

Communicable Disease Branch, Veterinary Public Health

Tel: 919-733-3419 (24/7)

Fax: 919-733-9555

#### **NC State Laboratory of Public Health**

Rabies Laboratory

Tel: 919-733-3937 or 919-807-8626

#### **Bats and the risk of rabies in the United States**

Between 2002 and 2012, the CDC reports that 21 of 24 human rabies cases that were acquired in the United States were linked to bat exposures. Most of these exposures were unrecognized or considered insignificant. According to the [CDC 2008 ACIP Guidelines](#), the risk for rabies resulting from an encounter with a bat might be difficult to determine because of the limited injury inflicted by a bat bite, an inaccurate recall of a bat encounter that might have occurred several weeks or months earlier, and evidence that some bat-related rabies viruses might be more likely to result in infection after inoculation into superficial skin layers.

#### **General Bat Submission Criteria: Human and Domestic Animal Exposures**

- A human or not-currently rabies-vaccinated domestic animal has had direct contact with a bat.
- A bat is found in the same room as a person who might be unaware that a bite or direct contact had occurred (e.g., a deeply sleeping person awakens to find a bat in the room or an adult witnesses a bat in the room with a previously unattended child, mentally disabled person, or intoxicated person).

**Submission of Multiple Bats; Bat Infestations:** NC SLPH will not test representative bats (a subset) in the case of a building infestation with multiple bats (more than one) that may have entered the living space, potentially exposing people or pets, *unless* it can be determined that *all* of the bats were captured for testing. Testing *some* of the bats will not provide information about the rabies status of bats that may have entered and exited the living space. **Therefore, in situations of potential exposures to multiple bats and multiple bat submissions, first consult with NC DPH public health veterinarians/epidemiologists at 919-733-3419 for guidance on risk assessments and appropriate submission. If approval is given for submission of multiple bats, please document the name of the person who approved testing on the rabies submission form [NC DHHS Rabies Examination Form #1614 \(PDF, 87 KB\)](#).**

**Human Rabies Risk Assessments:** When multiple bats (more than one) are found in the living space of a building or the building is determined to be infested with bats and some bats may have entered and exited, then human rabies risk assessment for postexposure prophylaxis is indicated. Potentially exposed persons should be directed to the [Local Health Department](#) communicable disease nurses and/or a healthcare provider (hospital emergency department) for careful rabies risk assessment to determine the need for postexposure prophylaxis. **NC DPH public health veterinarians/epidemiologists are available (24/7) at 919-733-3419 for consultations.**

**Do not submit live bats to the NC SLPH:** Bats should be humanely euthanized according to the [AVMA Guideline for the Euthanasia of Animals](#). Many local animal control services have an established relationship with a North Carolina veterinarian to perform euthanasia of bats and other wildlife species. The entire bat should be submitted.

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### Responsibilities and Roles

1. **Persons with potential exposure to bats** should contact and coordinate with the [Local Animal Control](#) for submission of bats and domestic animal risk assessments and the [Local Health Department](#) communicable disease nurses for assessment of potential exposures of humans to bats. Any direct contact with a bat is considered an exposure and if a bite or scratch has occurred, the wound should be washed with soap and running water for 15 minutes. Recommendations for rabies postexposure prophylaxis will depend on the rabies testing result and/or circumstances of exposure.
2. **Local Animal Control and/or Local Health Department will:**
  - a. Notify NC DPH Public Health Veterinarians/epidemiologists (919-733-3419) for consultation when there is a potential infestation or multiple bats are found in a dwelling.
  - b. Notify LHD communicable disease nurses when human rabies risk assessments are indicated.
  - c. Complete and include [NC DHHS Rabies Examination Form #1614 \(PDF, 87 KB\)](#) with each bat specimen submission. Include minimally, Employer Identification Number, the property owner's name, address, telephone; name of persons/pets exposed; and one contact person with telephone information (Local Animal Control or Local Health Department).
  - d. Investigate all potential human and domestic animal exposures.
3. **NC State Laboratory of Public Health (SLPH) will:**
  - a. **Receive bat specimens (already euthanized).** Shipping live bats places the rabies staff in danger of being bitten, which would require post-exposure treatment.
  - b. Perform all public health rabies testing on animals.
  - c. Report **positive** and **unsatisfactory** rabies test results (or if the **test was not performed**) directly by telephone to:
    1. Local Contact (Animal Control or LHD) written on DHHS #1614
    2. NC DPH Public Health Veterinarians/Epidemiologist 919-733-3419 (24/7)
    3. NCDA&CS Veterinary Division, 919-733-7601 weekdays; after hours call the Director of Livestock Programs, Veterinary Division, and Fax 919-733-2277; if form #1614 indicates a livestock was exposed to the bat.
  - d. Fax Positive, Unsatisfactory and Test Not Performed Rabies Reports directly to NC DPH Public Health Veterinarians/Epidemiologists.

**NC State Laboratory of Public Health Specimen Shipping Policy and packaging tutorial** are located at <http://slph.ncpublichealth.com/virology-serology/rabies.asp> . Important points are below.

- **The NC SLPH moved to a new location in 2012: 4312 District Drive, Raleigh, NC 27607.**
- Shipment via State Courier Service is usually the most rapid mode of transit. Personal conveyance may be used when courier service is unsuitable. Always notify Rabies On Call (919-733-3419) if the sample will be driven "in person" to the SLPH for weekend/holiday testing or same day testing. If the sample is driven in for "same day testing" with prior notification, the sample must arrive at the SLPH prior to 1:00 p.m. on weekdays and prior to 10:00 a.m. for Saturday testing.
- Address all shipping containers using the special label (white with red lettering) available from the SLPH mailing room. The label instructs the transporting service to call the SLPH upon arrival and will assure proper handling of the specimen.

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- **If you do not have the special mailing label, the following information should be clearly visible on the exterior of the mailing container containing the animal head:**

TO:

State Laboratory of Public Health

4312 District Drive

Raleigh, NC 27607

- Write on the top of the package:  
"This package contains an animal head suspected of having rabies."
- Also, if weekend or holiday testing, write on top of the package:  
"FOR WEEKEND TESTING" or "FOR HOLIDAY TESTING"
- To transporting company:  
"Call on arrival (919) 733-7656 weekdays (8:00 a.m. - 5:00 p.m.)"

### **Other Shipping and Delivery Information**

- **Postal Services: Delivers daily except Sundays** (specimens arriving on Saturdays are refrigerated); the Laboratory does not accept "POSTAGE DUE" specimens or samples.
- **FedEx**: Samples may also be shipped using FedEx priority for overnight delivery (Monday – Saturday; requires signature). Notify Rabies On Call (919-733-3419) so that the SLPH (and Capital Police) will know to look for the package.
- **UPS**: Delivers Monday through Friday.
- **State Courier Service**: Delivers daily except Sundays.
- **In-Person**:
  - Regular hours: 8:00 a.m. – 5:00 p.m. Monday – Friday. Specimens/samples are delivered to the "Specimen Receiving and Drop Off" area adjacent to the facility Loading Dock (please follow signs).
  - After-hours: Specimens/samples are delivered to the same location ("Specimen Receiving and Drop Off") but delivery personnel must notify on-site Capital Police for access to building via facility intercom.
  - Private submission of animals is discouraged, however, if an individual submits an animal the report will be sent to the local Animal Control Office or Local Health Department.
- Appropriate labeling materials are available through the [NCSLPH Online Supply Ordering System](#).
- [NC DHHS Rabies Examination Form #1614 \(PDF, 87 KB\)](#) can be downloaded and printed from the NC SLPH website at [www.slph.ncpublichealth.com](http://www.slph.ncpublichealth.com).

### **References:**

- [MMWR: Human Rabies Prevention ---United States, 2008. Recommendation of the Advisory Committee for Immunization Practices.](#)
- **The North Carolina Rabies Public Health Program Manual:**  
<http://epi.publichealth.nc.gov/cd/lhds/manuals/rabies/toc.html>