

Rabies Testing of Animals:

Protocol for Submission of Livestock and Equine Specimens For Rabies Testing

Purpose: To provide guidance and a stepwise directive for state animal control officials, local health departments, environmental health, veterinarians and other state agencies about best practices for submission and reporting of livestock and horse specimens for rabies testing.

This document was a multi-agency collaboration:

N.C. DHHS - North Carolina Division of Public Health

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N.C. DHHS - North Carolina State Laboratory of Public Health (SLPH)

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NCDA&CS - North Carolina Veterinary Diagnostic Laboratory System (NCVDLS)

Dr. James Trybus, Director of Laboratories
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Dr. Mike Neault, Director of Livestock Programs, Veterinary Division
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Submission Criteria:

- Livestock or horse has exposed a human and/or unvaccinated domestic animal, *AND*
- The animal has a history of exposure or potential exposure to rabies, *AND/OR*
- It is exhibiting clinical signs consistent with rabies, *AND/OR*
- A veterinarian suspects a diagnosis of rabies in the animal.

Submission Protocols and Responsibilities:

Important: Livestock heads and carcasses must never be submitted directly to the N.C. State Laboratory of Public Health (SLPH). The appropriate protocol is to ***submit the livestock head or carcass directly to NCVDLS for brain removal and NCVDLS will remove and submit the brain to N.C. State Laboratory of Public Health*** for rabies testing.

Also note: Request **DHHS Rabies Examination Form #1614** must contain, at a minimum:

- Name and contact information (address and phone number/s) for the owner of the livestock;
- Animal control officer contact (name and telephone number/s); and
- Local health department contact (name and telephone number/s); and
- Veterinarian who submitted livestock (name and telephone number/s).

1. **The Veterinarian and/or Owner** will contact and coordinate with the local animal control and/or the local health department before submitting livestock specimens to NCV DLS for processing for rabies testing.
2. **Local Animal Control and/or Local Health Department** (in coordination with the veterinarian and owner) will:
 - a. Notify DHHS public health veterinarians (919.733.3419) of the livestock submission. The public health veterinarians will notify the N.C. SLPH to expect a livestock submission from NCV DLS.
 - b. Notify and coordinate with the closest NCV DLS facility for the livestock submission. Contact information is located below (see 3a.) and at www.ncagr.gov/vet/ncvdl/VetLabFacilitiesDirectory.html.
 - c. Complete and include the N.C. DHHS Rabies Examination Form #1614 (<http://slph.state.nc.us/virology-serology/rabies.asp>) with the submission to NCV DLS. The completed form must include, at a minimum, the animal owner's name, address, telephone; names of persons exposed, and contact person and telephone information for *either* the local health department or local animal control.
 - d. Complete and include the NCV DLS Submission Form (www.ncagr.gov/vet/ncvdl/SubForm_General.pdf).
 - e. Submit the head or carcass to the closest NCV DLS facility (see 3a. below or www.ncagr.gov/vet/ncvdl/VetLabFacilitiesDirectory.html).
 - f. Arrange for a veterinarian to safely remove the livestock head and dispose of the carcass (see CDC guidelines in *Human Rabies — Kentucky/Indiana, 2009* at www.cdc.gov/mmwr/PDF/wk/mm5913.pdf, pp. 393-6). Ideally, the entire carcass can be submitted to NCV DLS (a carcass disposal fee will be required; see 3b. below). *We do not recommend that a private veterinarian remove the brain, because of the potential for exposures to rabies and other zoonotic diseases* (e.g., Eastern Equine Encephalitis (EEE) and West Nile Virus (WNV)).
 - g. Investigate all human (LHD CD nurses) and dog and cat (animal control) exposures.
 - h. The local health department must be made aware of all livestock that test positive or unsatisfactory, or if the test was not performed. CD nurses are responsible for assessing all potential human exposures to rabies.
3. **NCV DLS** (www.ncagr.gov/vet/ncvdl/index.htm):
 - a. All four NCV DLS labs will accept entire carcasses or heads of livestock for processing. The closest NCV DLS facility should be used. The NCV DLS will forward the brain tissue to the N.C. SLPH for rabies testing. The labs are:

Arden Laboratory (Fletcher, NC)
Phone: 828.684.8188; Fax: 828.687.3574
Contact: Dr. Richard C. Oliver, Resident Director

Northwestern Laboratory (Elkin, NC)
Phone: 336.526.2499; Fax: 336.526.3014
Contact: Dr. Brad Barlow, Resident Director

Griffin Laboratory (Monroe, NC)

Phone: 704.289.6448; Fax: 704.283.9660

Contact: Dr. Kim Hagans, Resident Director

Rollins Laboratory (Raleigh, NC)

Phone: 919.733.3986; Fax: 919.733.0454

Contact: Dr. James Trybus, Resident Director

b. Fees

1. Head submitted - \$5 fee for brain removal (as of 09/07/2012)
2. Carcass submitted - disposal fee by carcass weight (ex.: horse ~\$50)

- c. If diagnostic tests in addition to rabies testing are requested**, please submit the carcass to the closest NCVDL facility. Brain tissue will be forwarded for rabies testing after processing for the additional tests has been completed. Include a completed NCVDLS Submission Form (www.ncagr.gov/vet/ncvdl/SubForm_General.pdf), along with a completed DHHS Rabies Examination Form #1614 (<http://slph.state.nc.us/virology-serology/rabies.asp>) See page 7 of the 2014 NCVDL User Guide (www.ncagr.gov/vet/ncvdl/LabUserGuide.pdf) for details.

4. N.C. State Laboratory of Public Health (SLPH) will:

- a. Receive livestock and horse brain specimens directly from NCVDLs.**
- b. Perform all North Carolina public health rabies testing.**
- c. Report **positive** and **unsatisfactory** rabies results, or if the test was not performed, directly by telephone to:**
 1. The submitter (either LHD or animal control) Contact names and phone numbers must be written on DHHS #1614;
 2. N.C. DHHS Public Health veterinarians, 919.733.3419 (24/7);
 3. The appropriate NCVDL veterinarian, and
 4. NCDA&CS Veterinary Division, 919-733-7601 or 919.707.3272 weekdays; after hours (Dr. Mike Neault cell: 919.740.9655).
- d. Fax **positive** and **unsatisfactory** rabies reports directly to N.C. DHHS (919.733.9555) and NCDA&CS VD (919.733.2277).**
- e. For additional information, see the N.C. SLPH guidance on the web at <http://slph.state.nc.us/virology-serology/rabies.asp>.**

5. NCDA&CS VD will:

- a. Receive notification of positive or unsatisfactory livestock rabies testing directly from N.C. SLPH by telephone and by fax (see 5b. below).**
- b. NCDA&CS VD contact information:**
 1. Weekdays (during business hours) phone: 919.733.7601 or 919.707.3272.
 2. Fax: 919.733.2277, "Attention: Dr. Mike Neault"
 3. N.C. SLPH will report directly to Dr. Neault: 919.740.9655 (cell phone after hours).
- c. Contact the livestock owner and conduct a field investigation of livestock exposed or potentially exposed to rabies.**