MEMORANDUM

DATE: December 10, 2010

TO: Health Officers
Communicable Disease Directors
Communicable Disease Staff
Environmental Health Directors
Environmental Health Staff
Nursing Directors
Rabies Coordinators

FROM: Kimberly C. Mitchell, MPH
Chief, Rabies and Vector-borne Diseases
Center for Zoonotic and Vector-borne Diseases
Office of Infectious Disease Epidemiology and Outbreak Response

THROUGH: Katherine Feldman, DVM, MPH
State Public Health Veterinarian
Chief, Center for Zoonotic and Vector-borne Diseases
Office of Infectious Disease Epidemiology and Outbreak Response

RE: Updated Maryland Animal Rabies Submission Policy, Rabies Testing Form, and Reporting Requirements

As was communicated in a memo from Dr. Maria Carlos on November 29, 2010 (attached), the DHMH Laboratories Administration, in collaboration with the Center for Zoonotic and Vector-borne Diseases (CZVBD) and local health departments, have developed a new animal rabies testing form and animal submission policy.

Key Changes to the Animal Rabies Submission Policy

1. Animals that have not exposed a human will not be tested on Saturdays. For after-hours submissions that require results as soon as possible so that a medical determination about rabies post-exposure prophylaxis can be made, laboratory testing is available through the on-call system.

2. Electronic Test Request/ Electronic Reporting
a. Rabies tests must be ordered electronically by using DHMH MyLIMS (Laboratory Information Management Systems),
http://starlims.dhmh.md.gov/starlims10.dhmhlabs.prod/

b. This system allows local submitters to view test results online and print copies of the rabies test reports.

3. Small rodents, including squirrels, chipmunks, gerbils, guinea pigs, hamsters, rabbits, mice, rats, voles, shrews and moles, will not be accepted for testing unless (1) the animal has bitten a human and (2) prior approval for testing has been authorized by staff in the Office of Infectious Disease Epidemiology and Outbreak Response (OIDEOR).

With the exception of MyLIMS, which was formally launched on November 1, all other animal rabies submission policy changes take effect on January 1, 2011. In preparation for these changes, the DHMH Laboratories Administration Rabies Laboratory staff, in collaboration with CZVBD staff, conducted on-site training sessions throughout the state in October and November.

Updates to Reporting Procedures
Because the new animal rabies testing form implemented in MyLIMS (attached) captures more data (e.g., about exposure circumstances) than was done previously, CZVBD has modified the reporting requirements for local health departments. Provided your jurisdiction is using MyLIMS for animal rabies submissions, and provided the animal rabies testing form is fully completed for each submission, please note:

1. The Monthly Animal Rabies Report is no longer required.
2. The Maryland Rabid Animal Surveillance Report is no longer required.
3. In lieu of the Rabid Animal Surveillance Report, local staff are asked to forward to CZVBD a copy of any internal document routinely used to report animal exposure incidents.
4. Please notify CZVBD of any animals submitted for rabies testing to laboratories other than DHMH (e.g., to the MDA Animal Health Laboratories) or when animals submitted to DHMH are not from Maryland.
5. The Maryland Report of Human Postexposure Rabies Prophylaxis (attached) has been modified and the new version (dated 12/2010) should be used effective immediately.
6. The Monthly Animal Bite Report Form should be submitted monthly (as always).

CZVBD will reconcile LHD and DHMH rabies surveillance data bi-annually in collaboration with each local jurisdiction.

The updated rabies submission policies are posted on the DHMH Laboratories Administration’s Rabies Information website at http://dhmh.maryland.gov/labs. The site also features an online training resource that includes handouts, FAQs, and screen-shot and online video tutorials. More information about rabies in Maryland can be found at http://www.edep.org/vet_med/rabies.cfm.

We would like to thank you for your input, cooperation, and support during this transition period. If you have questions, or would like more information or to provide feedback, please contact the Center for Zoonotic and Vector-borne Diseases at (410) 767-5649 or czvbd@dhrnh.state.md.us.
Attachments:
1. Memo from Laboratories Administration: Updated Animal Rabies Submission Guidelines, including the new animal Rabies Examination Submission Form (updated 11/15/10)

cc: K. Black G. Hohenhaus N. Ratliff
    D. Blythe T. Jacobs R. Scurry
    M. Carlos C. Mitchell K. Sullivan
    J. Chapman R. Myers A. Wakhweya
    C. Driscoll D. Paulson L. Wilson
    H. Hauck F. Phillips
MARYLAND REPORT OF HUMAN POST-EXPOSURE RABIES PROPHYLAXIS

Completed By Local Health Jurisdiction or Attending Health Care Provider

JURISDICTION: 

PATIENT IDENTIFICATION

Patient name 
(First) ____________________________ (Last) ____________________________ Phone _______

Address ____________________________ Number and Street (Not P.O. Box Number) 
City ____________________________ County ____________________________ Zip Code _______

Date of birth ____________________________ Sex M o l e F e m a l e Unknown Is patient Hispanic or Latino? Y e s N o

Race Select one or more: American Indian or Alaska Native Black or African American Other Pacific Islander 
Asian Native Hawaiian or Other

EXPOSURE INFORMATION

Address of exposure ____________________________ Number and Street (Not P.O. Box Number) 
City ____________________________ County ____________________________ Zip Code _______

Date of exposure: MM/DD/YY ____________________________ Time Dawn Daylight Dark Unknown

Ownership of rabid/suspect animal Owned Not Owned Feral Cat Colony Owned Not Owned Other ________ Unknown

Species (rabid/suspect animal) Bat Cat Cow Dog Ferret Fox Goat Groundhog/Woodchuck Horse/Pony Monkey (Specify Species) Rabbit Raccoon Skunk Sheep Squirrel Other ________ Unknown

DISPOSITION OF ANIMAL

Was animal tested? Yes Lab accession # Unknown No

Rabies test result Positive Negative Un satisfactory Unknown

10 day quarantine? Date started MM/DD/YY Date completed MM/DD/YY

If quarantine was not completed, explain why

Was the animal vaccinated? Yes Date of expiration Unknown No

ANATOMICAL SITE OF EXPOSURE TO RABID/SUSPECT ANIMAL (Check all that apply)

Head / Neck Arm / Hand Leg / Foot Torso (Trunk) Unknown

TYPE OF EXPOSURE TO RABID/SUSPECT ANIMAL (Check all that apply)

Single bite Saliva in eye, nose, or mouth Saliva contaminating open wound

Multiple bites Skinning / Dressing animal Touching / Petting / Treating animal

Scratch Cat in room Other ________ Unknown

CIRCUMSTANCES OF EXPOSURE (Check all that apply)

Patient approached animal Animal approached patient Petting / Touching / Playing / Picking up

Feeding / Taking food away from animal Skinning / Dressing animal carcass Fearing the rabid / suspect animal

Treating / Nursing / Examining animal Breaking up fight between animals Unprovoked attack by animal

Unknown Other (Explain) ________ Unknown

PRE AND POST-EXPOSURE RABIES PROPHYLAXIS

Was patient pre-immunized against rabies? Yes Date series completed Unknown No

Type of post-exposure prophylaxis given Complete HRIG & 4 vaccine doses Incomplete: # of doses given

Booster – 2 vaccine doses Unknown Not given Other ________ Unknown

Reason for not completing PEP Patient refused Animal negative Other ________ Unknown

Date series started MM/DD/YY Date series completed/stopped MM/DD/YY

COMMENTS

Department of Health and Mental Hygiene, Infectious Disease and Environmental Health Administration, Center for Zoonotic and Vector-borne Diseases, 201 West Preston Street, Baltimore, MD 21201 Phone: (410) 767-5649, Fax: (410) 383-2420 DHMH #4206 Revised (12/10)
DATE: November 29, 2010

TO: Local Health Department Health Officers, Rabies Coordinators, Nursing Directors, Environmental Health Directors, Communicable Disease Directors, and Communicable Disease Staff

FROM: Maria Paz Carlos, Ph.D., Chief, Division of Virology and Immunology, Laboratories Administration

THROUGH: Robert A. Myers, Ph.D., Deputy Director Scientific Programs, Laboratories Administration

John M. DeBoy, Dr.P.H., Director, Laboratories Administration

SUBJECT: Updated Animal Rabies Testing Submission Guidelines

The DHMH Laboratories Administration recognized the need to improve the process and communications in rabies testing with the local health departments, as well as understand the importance of producing quality rabies testing. This memo provides an update on the animal rabies submission procedural changes listed below effective January 1, 2011.

1. The Rabies Laboratory operates from 8:00AM to 4:30PM weekdays (Mondays through Friday except on holidays and salary reduction days). On-call scientists are available during holidays, weekends and salary reduction days for after-hours submissions that require results as soon as possible so that a medical determination on rabies post-exposure prophylaxis (PEP) can be made. (See enclosed and our website at http://dhmh.state.md.us/labs/html/rabies.html). Note that we are improving the communications and coordination to see to it that human exposure cases are tested immediately, thus those that need medical attention will get it sooner.

2. Updated Specimen Submission Form and Electronic Lab Test Request/Reporting.
   a. Submission of specimens for animal rabies testing using the DHMH Laboratories Administration’s MyLIMS (Laboratory Information Management Systems) http://starlims.dhmh.md.gov/starlims10.dhmhlabs.prod/. The local health departments must use MyLIMS for submission of specimens for rabies testing. This would allow the LHDs to...
view test results on-line, as well as print a copy of the official test report. These new procedures include the updated animal rabies testing submission form (DHMH 1188 11/10) (See enclosed and our website at http://dhmh.state.md.us/labs/html/rabies.html).

b. These procedural improvements were the result of the collaborative efforts of the DHMH Center for Zoonotic and Vector-borne Diseases, the local health departments, and DHMH Laboratories Administration. The improvements in the rabies submission policies have been vetted across the State of Maryland the past six months. Extensive outreach by the DHMH Laboratories Administration Rabies Staff in collaboration with the Center for Zoonotic and Vector-borne Diseases staff has been provided to the local health departments. These on-site trainings were held at 16 local health departments with about 140 local health department staff in attendance. In addition, these procedural changes were presented at the local health officer’s meeting held on November 10, 2010 for the Deputy Secretary and the Local Health Officers to view the improvements and provide feedback. We sincerely appreciate the active participation and cooperation of the local health department staff.

3. On-Line Tools and Resource. To assist the LHDs with training, on-line tools and resource including the rabies submission policies, handouts, FAQs, submission forms, as well as both screen-shot and on-line video tutorials, were posted on our website at http://dhmh.state.md.us/labs/html/rabies.html.

For questions, please contact the Rabies-Zoonotic Program Laboratory at (410) 767-6177. Also, please routinely visit the DHMH Laboratories Administration website at http://dhmh.state.md.us/labs/html/rabies.html for rabies testing submission guidelines and updates.

Lastly, we believe that by improving the communications with the LHDs, as well as providing access to electronic test submissions will make the process better, moving forward, and this is what we have done. Thank you for your continued support and contributions to animal rabies testing activities in Maryland.

Enc: Animal Rabies Submission Policy, Animal Rabies Submission Form

cc: Deputy Secretary Frances B. Phillips
Heather Hauck
Dr. Katherine Feldman
Dr. David Blythe
Dr. Lucy Wilson
Kimberly Mitchell
Dr. Guy Hohenhaus, MDA
Dr. Jo Chapman, MDA
Dr. Tom Jacobs, MDA
Dr. Cindy Driscoll, DNR
Nicky Ratliff, PAWS
Rabies Laboratory Submission Policy

Hours of Operation
The DHMH Laboratories Administration Rabies Laboratory operates from 8:00 AM to 4:30 PM weekdays (Monday through Friday except on holidays and salary reduction days [SRD]). On-call laboratory scientists are available for requests that require test results as soon as possible so that a medical determination on rabies post-exposure prophylaxis (PEP) can be made.

Specimens must be received at the DHMH Laboratories Administration by 12:00 PM on Fridays to have the test results reported by Friday 4:30 PM. Specimens received on Fridays after 12:00 PM will have the results ready the next regular workday.

Specimens received on evenings from Monday through Friday, Fridays from 12:00 PM to 4:30 PM, on a weekend, SRD, or on a State holiday will be processed on the next regular workday, except for situations that require test results as soon as possible so that a medical determination about rabies PEP can be made (emergency examination). In these situations, prior approval by epidemiology staff in the DHMH Office of Infectious Disease Epidemiology and Outbreak Response (IDEOR) is necessary before testing will be initiated by on-call laboratory scientists. (For details, please see the Emergency Examination Requests section below).

Delivery Procedures
Delivery of specimens must be from Monday through Friday 7:30AM to 6:00PM (regular workdays) to the DHMH Laboratory Tower in the Receiving Area on the Service Level of the O’Connor Building at 201 W. Preston Street. All animal submission of specimen must be routed through the local health department and sent via courier service. Do not use the U.S. Postal Service or other public transportation service to send specimens. (For emergency examination situations, please see the Emergency Examination Requests section below).

Ordering Tests
For routine testing Monday through Friday, all local health departments must use the DHMH Laboratories Administration’s MyLIMS (Laboratory Information Management Systems) http://starlims.dhmh.md.gov/starlims10.dhmlabz.prod/ for submission of specimens. The updated rabies submission form (DHMH 1188 11/10) will print out automatically when the animal rabies test is ordered through the MyLIMS system, and must be included in the cooler and attached to the specimen being submitted. One Rabies Submission Form should accompany each animal submitted. Specimens approved for emergency testing must be accompanied by a fully completed handwritten Rabies Submission Form if access to MyLIMS is not possible. An emergency contact name and phone number must be listed on the Rabies Submission Form. The updated rabies submission form (DHMH 1188 11/10) can be downloaded from our website at http://dhmh.state.md.us/labs/html/rabies.html.

Criteria for Animal Submission
Terrestrial animals acceptable for submission to DHMH are rabies vector species (e.g., raccoons, foxes, skunks, etc.) that expose humans, livestock, or pets. Exposure is defined as a bite that breaks the skin or contact of mucous membranes or broken skin with either animal saliva or nervous tissue. Birds, fish, reptiles and amphibians will not be accepted for rabies testing under any circumstances. Small rodents, including squirrels, chipmunks, gerbils, guinea pigs, hamsters, rabbits, mice, rats, voles, shrews and moles, will not be accepted for testing unless (1) the animal has bitten a human and (2) prior approval for testing has been authorized by the DHMH IDEOR epidemiology staff. Most recent human cases of rabies in the U.S. have been associated with bats, and bat bites may be difficult to recognize.

Bats should be submitted for testing in all cases of direct human contact with a bat or when bite or mucous membrane contact cannot be ruled out.

Emergency Examination Requests

Some situations that occur after regular business hours may require rabies test results as soon as possible so that a medical determination about rabies PEP can be made. In these situations, on-call laboratory scientists are available, and specimens may be examined Fridays from 12:00 PM to 4:30 PM, on a weekend, SRD, or on a State holiday, with prior approval of DHMH IDEOR epidemiology staff. To reach the epidemiology staff during regular business hours, contact the DHMH IDEOR Center for Zoonotic and Vector-borne Diseases (CZVD) at 410-767-5649 (main), 410-767-6703 (DHMH State Public Health Veterinarian), or 410-767-8618 (CZVD Rabies Chief). After hours, use the DHMH IDEOR Epidemiologist-On-Call pager at 410-716-8194.

After receiving approval for an emergency examination request, contact one of the following DHMH Laboratories Administration staff (in the order listed below) to arrange for testing and appropriate submission. (NOTE: In addition to the rabies submission form, the specimen should be accompanied by the submitter's after-hours contact information to receive results).

1) Algernon Prioleau: 443-468-0264
2) Rabies Lab On-Call No: 443-735-1291
3) Dr. Maria Paz Carlos: 410-241-3303
4) Dr. Robert Myers: 443-928-0925
5) OLEPR (Jim Svrjcek or Gwendolyn Paszkiewicz): 410-925-3121

Specimen Collection

Animals should be euthanized in a manner that will not destroy the brain tissues to be examined in the diagnosis of rabies. When possible, only the animal's head should be submitted for diagnostic purposes. For animals weighing more than 20 pounds, particularly large dogs, only the head may be submitted for testing. If an animal is being submitted to DHMH Labs from an animal pathology or diagnostic laboratory, and the animal has already been prepared for necropy, the submitter should submit all or a cross section of the brainstem and half of the cerebrum.

Packaging and Shipping

- All rabies specimens must be placed into coolers that are clearly marked as rabies coolers. No other non-rabies clinical samples may be placed into rabies coolers or these samples will be rejected.
- Rabies coolers must fully close and must be waterproof.
- Each specimen must be individually packaged in a leak-proof bag and clearly labeled.
- Each specimen must be accompanied by a Rabies Submission Form for proper identification.
- All Rabies Submission Forms must be filled out correctly and legibly including exposure type.
- Coolers may be shipped with ice or ice packs but the ice should not occupy more than 1/3 of the cooler.
- Submitters should provide advanced notice and clear labeling for live bat submissions. All other animals being submitted for testing must be dead.
- Submitters should avoid freezing specimens. If frozen specimens are received, testing will be delayed.
- No trash should be sent in rabies coolers.
- Specimens containing ectoparasites (including ticks, fleas and maggots) must be sprayed with insecticide before being packaged and submitted. This is to ensure that couriers and lab staff are protected from infestations. The Rabies Lab will provide insecticide if requested.

### Animal Rabies Examination Submission Form

**1. SUBMITTER INFORMATION**

<table>
<thead>
<tr>
<th>Name:</th>
<th>First</th>
<th>Last</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City</td>
<td>State</td>
<td>Zip Code</td>
</tr>
<tr>
<td>Phone Number</td>
<td></td>
<td></td>
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<tr>
<td>Submitter Animal ID No.</td>
<td></td>
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</tbody>
</table>

**2. OWNER OF SUBMITTED ANIMAL INFORMATION**

<table>
<thead>
<tr>
<th>Name:</th>
<th>First</th>
<th>Last</th>
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</thead>
<tbody>
<tr>
<td>Address</td>
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<tr>
<td>City</td>
<td>State</td>
<td>Zip Code</td>
</tr>
<tr>
<td>Phone Number</td>
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</tbody>
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**3. SPECIMEN INFORMATION**

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<thead>
<tr>
<th>Species:</th>
<th>Pet</th>
<th>Stray</th>
<th>Wildlife</th>
<th>Livestock</th>
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</thead>
<tbody>
<tr>
<td>Death Date:</td>
<td>Month</td>
<td>Day</td>
<td>Year</td>
<td></td>
</tr>
</tbody>
</table>

**4. EXPOSURE INFORMATION**

<table>
<thead>
<tr>
<th>Type of Exposure:</th>
<th>Human</th>
<th>Animal</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Person Exposed:</td>
<td>First</td>
<td>Last</td>
<td>Name/Species of Animal Exposed (If applicable):</td>
</tr>
</tbody>
</table>

**Clinical Signs:**
- Disoriented
- Seizures
- Aggression
- Lethargy
- Paralysis
- Unexplained wound

**Rabies Vaccination History:**
- Current - Vaccinated
- Lapsed Rabies Vaccination
- Unvaccinated
- Unknown

**Circumstance of Human Exposure:**
- Other
- Capture
- Unprovoked attack
- Provoked attack

**Circumstance of Animal Exposure:**
- Fight
- Dead animal contact
- Other

**FLUORESCENT RABIES ANTIBODY TEST RESULTS:**

- Positive
- Negative
- Unsatisfactory Specimen

**Comments:**

**Results Phoned To:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
</tr>
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**Laboratory Use Only**

**Laboratory Accession No:**