

Animal Bites and Rabies

Eric Dotseth
Zoonotic Disease Program

May 14, 2026
Infectious Disease Summit



Objectives

- To describe the updates and changes to the West Virginia Rabies Surveillance, Management and Control Manual (DC-4) and West Virginia Animal Bites and Rabies Surveillance Protocol.
- To utilize the West Virginia Animal Bites and Rabies Surveillance Protocol and related forms.
- To describe appropriate management of animal bites in scenarios derived from interesting consults, including rabies transmission, rabies observation period, animal rabies testing, and rabies post-exposure prophylaxis (PEP).

Highlights of Additions to West Virginia Rabies DC-4



- Six month isolation for unvaccinated animals.
- West Virginia Office of Laboratory Services (OLS) animal submission after hours.
- Local health department (LHD) designates person for rabies observation period.
- West Virginia Division of Natural Resources responsibilities, contact information.

Highlights of Additions to 2026 West Virginia Rabies DC-4 (cont'd)

- Updated Animal Quarantine Notice (SG-59) is available on the West Virginia Office of Epidemiology and Prevention Services (OEPS) Animal Bites and Rabies website (<https://oeps.wv.gov/media/831/download?inline>) and West Virginia Rabies Surveillance, Management and Control Manual (DC-4).

WV gov An Official West Virginia Government Website State Agency Directory | Online Services | Phone Directory

Office of Epidemiology & Prevention Services

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Home

Animal Bites and Rabies - Local Health Departments Reporting

Reporting

- Animal Bite Surveillance Protocol
- Animal Encounter Report Form
- Human Rabies Report Form
- Rabies Case Definition: Animal | Human
- WVEDSS

Case Management

- Rabies Risk Assessment for Human Exposure to Animals
- Rabies Control Guide 2026 (DC4)
- Animal Quarantine Notice: Word | PDF
- Rabies Laboratory Specimen Submission Form
- NASPHV Compendium of Animal Rabies Prevention and Control
- Vaccination and PEP

West Virginia Department of **HEALTH**
OFFICE OF EPIDEMIOLOGY AND PREVENTION SERVICES
350 Capitol Street
Room 125
Charleston, WV 25301

A-Z Topics
Contact Us
Department of Health
Resources

Get in Touch
in X f

STATE OF WEST VIRGINIA
DEPARTMENT OF HEALTH

Rabies Surveillance, Management and Control Manual

Office of Epidemiology & Prevention Services and
Office of Environmental Health Services Procedures Manual

MEMORANDUM DISEASE CONTROL-FOUR

2026

West Virginia Animal Quarantine Notice (SG-59)



- Owned domestic animals involved in most animal encounters.
- LHD may designate owner to monitor pets.

SG-59
11-2025

_____ COUNTY HEALTH DEPARTMENT
STATE OF WEST VIRGINIA

NOTICE OF ANIMAL QUARANTINE

Issued To: _____ Animal To Be Quarantined: _____
Name: _____ Species: _____
Address: _____ Breed: _____
City: _____ Sex: _____
State, Zip Code: _____ Color: _____
Telephone: _____ Descriptive features: _____

You are hereby ordered to quarantine the animal identified above for ten (10) days for rabies observation. Quarantine is necessary to determine whether or not the person(s) bitten by the animal requires treatment. This order is issued in accordance with West Virginia Division of Health legislative rules on "Reportable Diseases," 64CSR7.

INSTRUCTIONS

- Quarantine the animal for ten (10) days beginning: Date: _____ Time: _____
The ten (10) day quarantine ends at: Date: _____ Time: _____
- Isolate the animal away from other animals and human contact in a manner that will prevent its escape and permit daily observation. Tying the animal in an open yard is not adequate confinement.
- Do not kill, sell, release, give, or vaccinate the animal away during the quarantine period.
- Give the animal proper care and make sure it is well fed and watered. Every effort should be made to keep the animal alive.
- At the end of the quarantine period, contact the health department at the phone number listed below to report the animal's condition.
- If the animal dies or shows any signs of sickness during the quarantine period contact the health department immediately. Avoid exposure to the animal's saliva and do not contact, damage, or destroy the animal's head or brain tissue. Laboratory examination of the animal's brain tissue may be necessary to determine if the animal has rabies.
- If the animal is required to be updated on rabies vaccinations, do not do this during the quarantine time. Once the animal has been released from quarantine you will have 10 days from release to the vaccination to be completed.

Sanitarian: _____ Date _____
_____ Health Department
Address: _____
Telephone Number: _____

Received by: _____ Date: _____

Highlights of Additions to West Virginia Animal Bites and Rabies Surveillance and Investigation Protocol



- LHD may designate owner to monitor pets.

March 2026


Animal Bite/Potential Rabies Exposure 
Surveillance and Investigation Protocol

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Office of Epidemiology and Prevention Services
Division of Communicable Disease Epidemiology
350 Capitol Street Room 125, Charleston, WV 25301-3715
Phone: (304) 558-5358 Fax: (304) 558-6335 www.oepps.wv.gov

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Animal Bites and the Other Potential Rabies Exposure Surveillance & Management



- State health department agencies (Office of Epidemiology & Prevention Services (OEPS), Office of Environmental Health Services, State Epidemiologist) have been receiving animal bite reports.
- In 2025, OEPS received 30 animal bite reports directly from healthcare providers.
- Remind healthcare providers to submit animal encounter forms to LHD.



Animal Encounter Report Form

SG-58 REV. 9/25

FOR HEALTHCARE PROVIDER/FACILITY ATTENDING TO ANIMAL BITE PATIENT

PAGE 1

Note to Providers: Complete as much information as possible on page 1 of this form. Fax this report to the local health department immediately.

Scenario #1: What Did I Step In?

After witnessing an erratic acting deer walk through his lawn, a man walks through his lawn with no foot apparel.

- Should the man be concerned about rabies exposure following contact with grass in contact with a potentially rabid animal?

Scenario #1: What Did I Step In? (cont'd)

Response: The man does not need to be concerned about potential rabies exposure from surface contact.

Explanation:

- Rabies virus is not viable outside of the host.
- Routes of rabies transmission
 - Bites.
 - Wound or mucous membrane contamination.
 - Bat exposure.
 - Aerosol transmission.
 - Organ or tissue transplantation (ex. cornea).

References:

- [West Virginia Rabies Surveillance, Management and Control Manual \(DC-4\).](#)
- [West Virginia Reportable Disease Rule §64-7-5.3.](#)

Scenario #2: The Vaccinated Dog

A woman was bit by her neighbor's dog. The dog is currently vaccinated for rabies virus.

- Should the dog be observed for 10 days for signs of rabies infection?

Scenario #2: The Vaccinated Dog (cont'd)

Response: The dog should be observed for 10 days for signs of rabies infection.

Explanation:

- Risk of animal contracting rabies even if animal has been vaccinated.
- West Virginia State Code.

References:

- [West Virginia Rabies Surveillance, Management and Control Manual \(DC-4\).](#)
- [West Virginia Reportable Disease Rule §64-7-5.3.](#)

Scenario #3: Groundhog Head Trophy

A dog was bitten by a groundhog. The dog's owner killed the groundhog and wanted the groundhog tested for rabies virus. This groundhog did not wound any humans.

- Does the groundhog need to be tested for rabies?

Scenario #3: Groundhog Head Trophy (cont'd)

Response: Test groundhog for rabies.

Explanation:

- Bats or terrestrial mammals, especially carnivores.
- The West Virginia Office of Laboratory Services (OLS) will conduct rabies testing:
 - Human exposure.
 - Pet and commercial animal exposures.
 - Animal displaying odd behavior.
 - Bats with close contact.

References:

- [Historical Data of Rabies in West Virginia by County & Species.](#)
- [West Virginia Rabies Risk Assessment for Human Exposure to Animals.](#)
- [West Virginia Rabies Surveillance, Management and Control Manual \(DC-4\).](#)
- [West Virginia Reportable Disease Rule §64-7-5.3.](#)
- [West Virginia Animal Bites and Rabies Surveillance and Investigation Protocol.](#)

Scenario #4: Feeling Like a Human Pin Cushion

An animal bite victim that was previously immunized for rabies received a single rabies booster shot. The animal bite victim is not immunocompromised.

- Should this animal bite victim receive additional rabies booster shots?
- How many additional rabies booster shots should be administered?

Scenario #4: Feeling Like a Human Pin Cushion (cont'd)

Response: The immunized animal bite victim receives two rabies booster shots.

Explanation:

- First dose immediately.
- Second dose three days later.

References:

- [West Virginia Animal Bites and Rabies Surveillance and Investigation Protocol.](#)
- [Summary of Rabies Post-Exposure Prophylaxis \(PEP\) Recommendations.](#)

Scenario #5: Missed Doctor's Appointment

A woman was bitten by a feral cat that was later confirmed to be infected with rabies. As recommended, the woman received the initial rabies post-exposure administration on day 0 but was delayed on receiving the second administration of rabies post-exposure prophylaxis (PEP) until day 7.

- Should the woman restart the rabies PEP series?
- How should the woman continue the rabies PEP series?

Scenario #5: Missed Doctor's Appointment (cont'd)

Response: Continue rabies PEP series with third dose on day 11, fourth dose on day 18.

Explanation:

- For delays of few days, continue and maintain same interval between doses.
- Effect of longer lapses of weeks unknown.

References:

- [West Virginia Animal Bites and Rabies Surveillance and Investigation Protocol.](#)
- [Summary of Rabies Post-Exposure Prophylaxis \(PEP\) Recommendations.](#)

Scenario #6: It's a Dog-Eat-Dog World

A man was bitten following an altercation between two dogs. One of the dogs died following the brawl. There is concern for potential rabies exposure for the man and the dog that is still alive. The man is not certain which dog bit him.

- For rabies management purposes, what should be done with the dead dog?
- For rabies management purposes, what should be done with the live dog?

Scenario #6: It's a Dog-Eat-Dog World (cont'd)

Response: The dead dog should be tested for rabies. The living dog should be observed for rabies for 10 days.

Explanation:

- Short life span for rabies-shedding dog.

References:

- [West Virginia Rabies Surveillance, Management and Control Manual \(DC-4\).](#)
- [West Virginia Reportable Disease Rule §64-7-5.3.](#)
- [West Virginia Rabies Risk Assessment for Human Exposure to Animals.](#)

- LHD may designate dog/cat/ferret owners to monitor pets for rabies.
- Rabies vaccinated animals still monitored for rabies.
- Rabies testing at OLS not limited to human encounters.
- Immunized animal bite victim receives two rabies booster shots.

Contact Information



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West Virginia Department of Health
Bureau for Public Health
Office of Epidemiology and Prevention Services
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WV Office of Laboratory Services

Rabies Testing

Presented by

John Barry, Lab Scientist III

167 11th Avenue • South Charleston, WV • 25303

(304) 558-3530

www.dhhr.wv.gov/ols

May 14th, 2026



The Rabies Virus

- Rabies is a preventable viral disease of mammals transmitted through the bite of a rabid animal.
- Transmission has been documented by contamination of mucous membranes (i.e. eyes, nose, mouth, wounds). Aerosol transmission and corneal transplants.
- Once clinical signs appear, the disease is fatal and treatment supportive.

Reasons for Specimen Submission

- Human exposures: Bites, scratches, contact with saliva and/or neurological tissue with suspected animals
- Pet and Commercial Animal Exposures
- Odd Behavior
- Bats- any close contact with humans or animals

Specimen Submission

What we accept:

- Head of moderate-sized animals such as dog, cat, raccoon
- Whole body of small animals such as: bats, mice and other small rodents.
- Large animals brain must be removed before submission such as: cows, pigs, horses, goats, sheep, etc....

Specimen Submission

Requirements:

- Moderate size animals- head must be severed before shipping to the Office of Lab Services.
DO NOT send whole animal
- Small animals- ensure that animal is deceased
- Large animals- cerebellum and brainstem are **REQUIRED**
- ★ **Private citizens should not attempt to remove head or brain of animals. Services of a county health official or veterinarian should be utilized.**

Rabies Specimen Packing Instructions

Kit Contents (large or small available)

- 2 Plastic Bags
- 1 Vinyl Zipper Bag
- 2 Ice Packs
- 1 Rabies Test
Submission Form
- 1 UN3373 Label
- 1 Return Address label



Rabies Specimen Packing Instructions



Animal head is double bagged in clear plastic bags

More than one animal can be shipped in same box but **MUST** be bagged separately and have a unique identification to match submission form

Rabies Specimen Packing Instructions



Place double bagged
specimen into the Vinyl
Zipper Bag

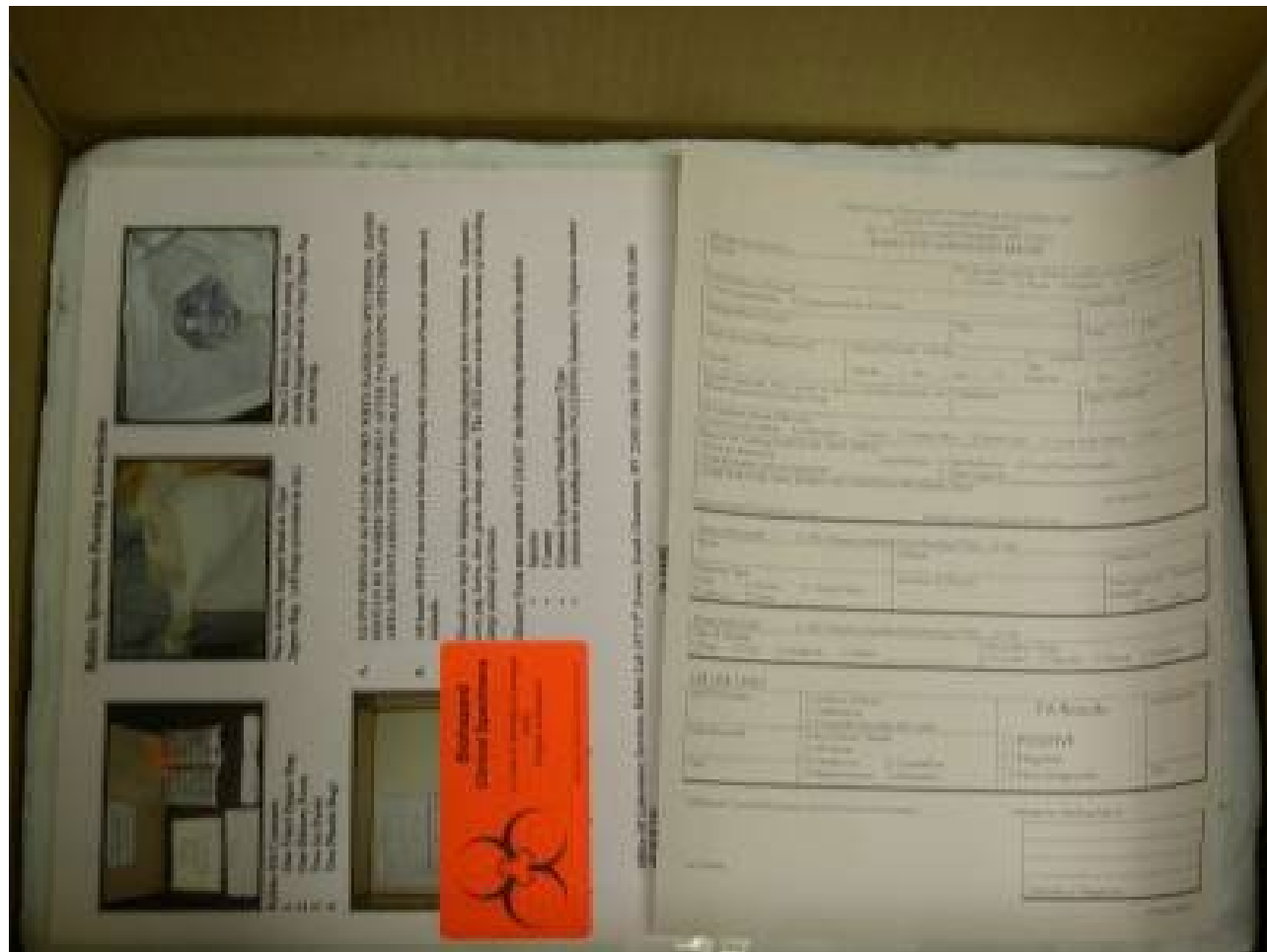
Rabies Specimen Packing Instructions



Place frozen ice packs
around the double
bagged specimen inside
the Vinyl Zipper Bag

**DO NOT PLACE ICE
PACKS IN DIRECT
CONTACT WITH THE
SPECIMEN!**

Rabies Specimen Packing Instructions



Place “zipped” vinyl
Zipper Bag inside the
Rabies Box

Place the Rabies Test
Submission Form on top
of the styrofoam lid away
from the specimen and
seal box with tape

Rabies Specimen Packing Instructions



Place UN3373 and
Return Address Labels
on the outer part of the
box and ship by FedEx,
UPS or USPS.
(shipper is responsible for costs)

DO NOT ship on Friday's
No weekend delivery at
OLS

Rabies Specimen Packing Instructions



After hours drop-off:

Specimens can be dropped off at OLS after normal work hours (8am-4pm) by placing the box in our refrigerated building located at the back parking lot entrance.

Please call the Rabies Unit for further instructions for drop off. 304-558-3530 x. 20135

Rabies Test Submission Form



Complete as thorough as possible

- Exact location where found (county, state)
- Type of exposure:
→ human or animal (bite to hand, face, etc.)
- Address/phone for delivering result (submitter)

Please call before sending

Form available on our website
www.dhhr.wv.gov/ols



OFFICE OF LABORATORY SERVICES
167 11th Avenue | South Charleston, WV 25303
Phone (304) 558-3530 | Fax (304) 558-2006

PLACE BARCODE HERE
OLS USE ONLY

RABIES LABORATORY SPECIMEN SUBMISSION FORM			
SUBMITTER INFORMATION			
FACILITY NAME		MAILING ADDRESS	
COUNTY		CITY	STATE ZIP
ATTENTION TO		BUSINESS HOURS PHONE NO.	
FAX NO.		AFTER HOURS PHONE NO.	
Species	If a domestic animal, what is current vaccination status? <input type="checkbox"/> Current <input type="checkbox"/> None <input type="checkbox"/> Expired <input type="checkbox"/> Unknown	DATE COLLECTED	
Date of Animal Death	How did animal die?	Was the animal buried before brain removal? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Animal Wild or Owned? <input type="checkbox"/> Not Owned/Wild/Stray <input type="checkbox"/> Owned (Name of Owner _____)		Phone # of Owner	
Address Where Found	City	State	Zip
County Where Found	GIS Coordinates Latitude _____ Longitude _____		
Name of Person Sample Received From		Telephone	
Occupation (check ONE only): <input type="checkbox"/> Animal Control Officer <input type="checkbox"/> Veterinarian <input type="checkbox"/> Police <input type="checkbox"/> Wildlife Officer <input type="checkbox"/> Private Citizen <input type="checkbox"/> County Health Official <input type="checkbox"/> Other _____			
Reason for Testing (Check ALL That Apply): <input type="checkbox"/> Human Exposure <input type="checkbox"/> Other _____ Surveillance: <input type="checkbox"/> Pet/Domestic Animal Exposure (Specify: _____) <input type="checkbox"/> Found Dead/Roadkill <input type="checkbox"/> Odd Behavior			
HUMAN EXPOSURE <input type="checkbox"/> No <input type="checkbox"/> Yes (If yes, please complete the following:)			
Name of Exposed	Address of Exposed	Date of Human Exposure	
Exposure Type <input type="checkbox"/> Bite <input type="checkbox"/> Scratch <input type="checkbox"/> Contact Saliva <input type="checkbox"/> Unknown <input type="checkbox"/> Other _____	Location of Wound	Post-Exposure Prophylaxis Started? <input type="checkbox"/> Yes <input type="checkbox"/> No	
PET/DOMESTIC ANIMAL EXPOSURE <input type="checkbox"/> No <input type="checkbox"/> Yes (If yes, please complete the following:)			
Type of Animal Exposed <input type="checkbox"/> Dog <input type="checkbox"/> Cat <input type="checkbox"/> Livestock <input type="checkbox"/> Other _____	Vaccination Status of Exposed Animal <input type="checkbox"/> Current <input type="checkbox"/> Expired <input type="checkbox"/> None <input type="checkbox"/> Unknown		
COMMENTS:			
OLS USE ONLY <input type="checkbox"/> UNSAT Reason/ID:		ACC: DE: CKD:	

FAILURE TO COMPLETE THIS FORM IN ITS ENTIRETY MAY RESULT IN DELAYED TEST RESULTS

Rev. 07/2013

Rabies Test Submission Form

Reason for Testing (Check ALL That Apply):		
<input type="checkbox"/> Human Exposure	<input type="checkbox"/> Other _____	Surveillance:
<input type="checkbox"/> Pet/Domestic Animal Exposure	(Specify: _____)	<input type="checkbox"/> Found Dead/Roadkill <input type="checkbox"/> Odd Behavior
HUMAN EXPOSURE <input type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, please complete the following:)</i>		
Name of Exposed	Address of Exposed	Date of Human Exposure
Exposure Type	Location of Wound	Post-Exposure Prophylaxis Started?
<input type="checkbox"/> Bite <input type="checkbox"/> Scratch <input type="checkbox"/> Contact Saliva		<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Unknown <input type="checkbox"/> Other _____		

Type of exposure:

- human or pet/domestic animal
- Name, address and date of exposure
- bite, scratch, saliva
- hand, face, leg, etc.
- prophylaxis started

Form available on our website
www.dhhr.wv.gov/ols

Rabies Test Submission Form



PET/DOMESTIC ANIMAL EXPOSURE <input type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, please complete the following:)</i>	
Type of Animal Exposed <input type="checkbox"/> Dog <input type="checkbox"/> Cat <input type="checkbox"/> Livestock <input type="checkbox"/> Other _____	Vaccination Status of Exposed Animal <input type="checkbox"/> Current <input type="checkbox"/> Expired <input type="checkbox"/> None <input type="checkbox"/> Unknown

COMMENTS:

OLS USE ONLY	ACC:
<input type="checkbox"/> UNSAT	DE:
Reason/ID:	CKD:

- Pet or Domestic Animal Exposure:
 - Type of animal exposed
 - Rabies vaccine status of the exposed animal

Form available on our website
www.dhhr.wv.gov/ols

Rabies Testing Procedure

- Extraction of brain tissue
- Stain two areas of the brain
- FA techniques (fluorescence)
- Same day result reporting
- ★ Varying circumstances may delay test results

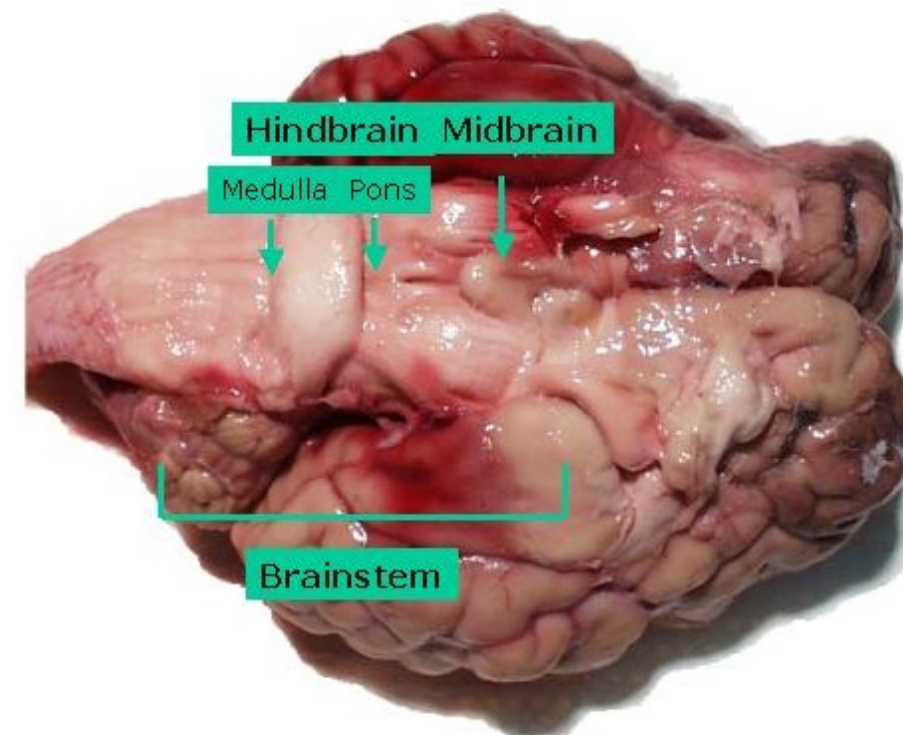
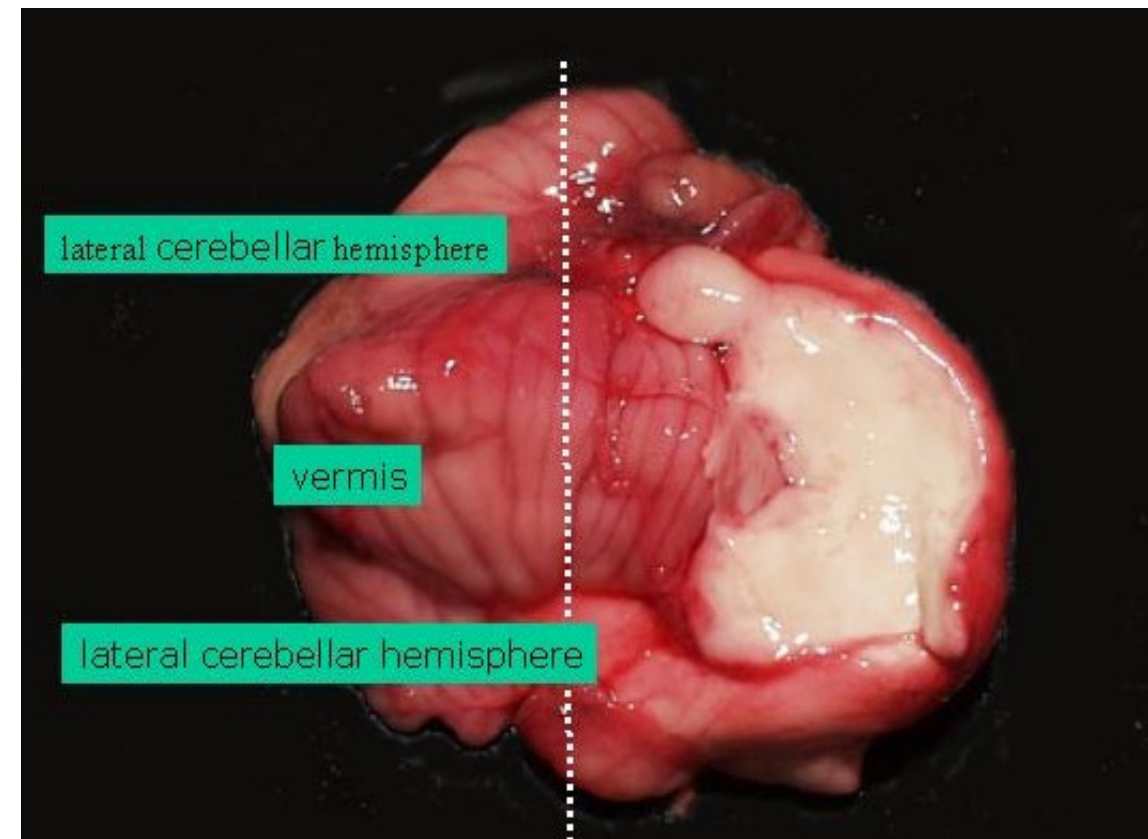
Extraction

Areas of the Brain that are tested

- ☐ Cerebellum
- ☐ Brain Stem

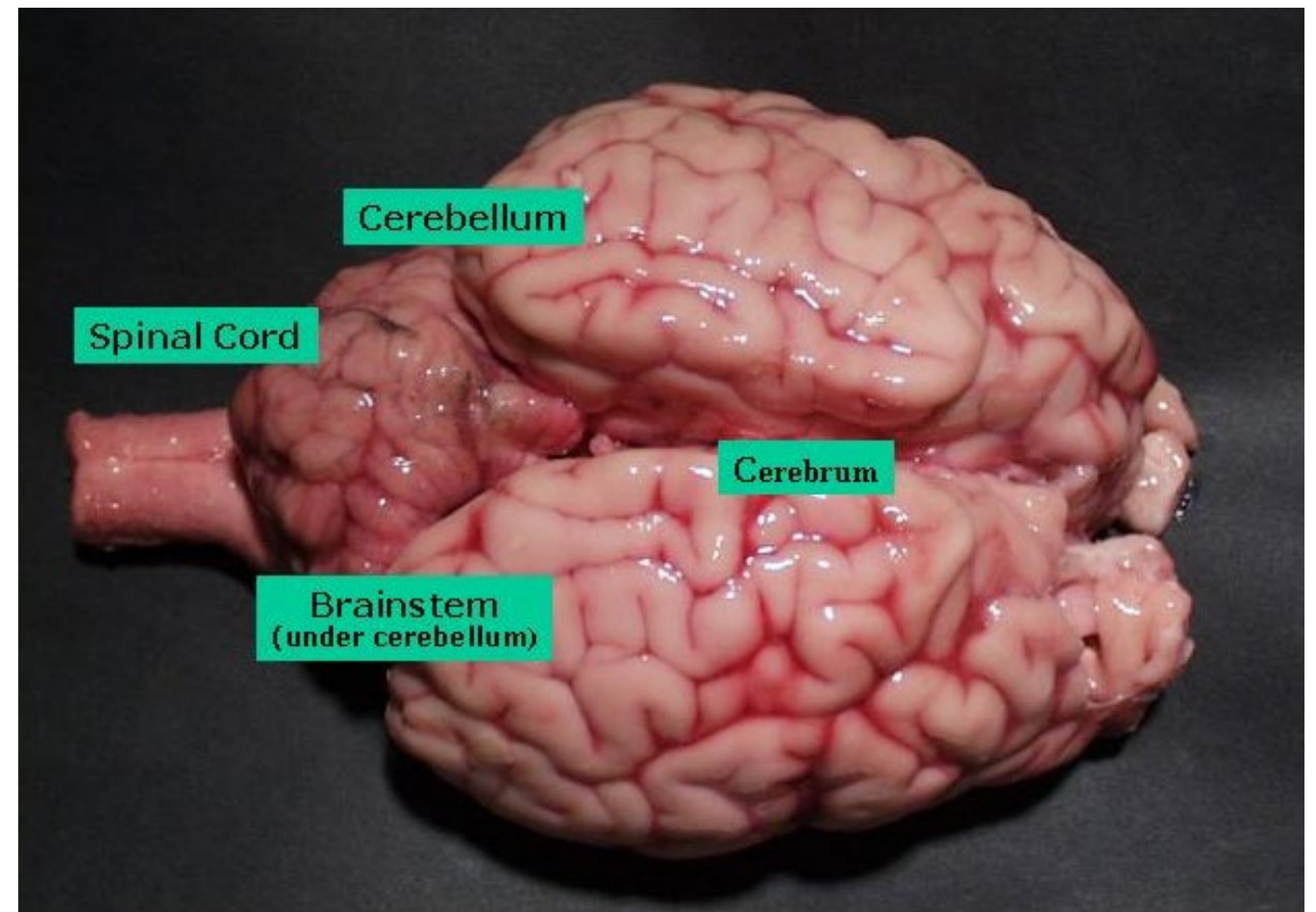
www.cdc.gov/ncidod/dvrd/rabies
(Professional Resources)

www.dhhr.wv.gov/ols



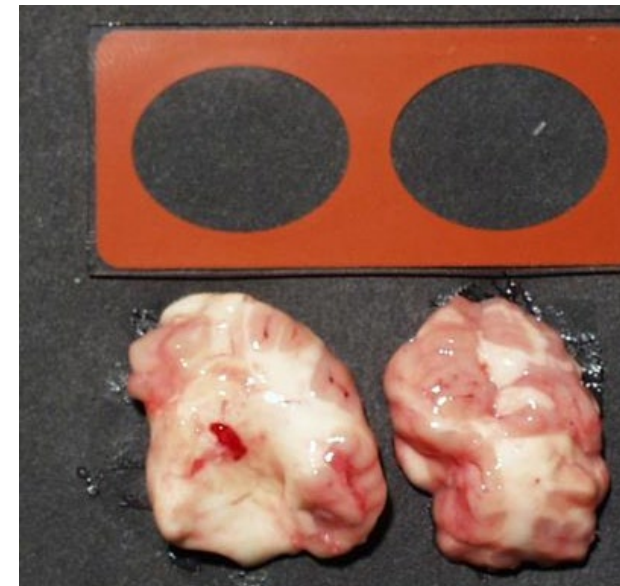
Extraction Requirements

- Technician needs to be able to identify the anatomy of the sample.
- Condition of the brain **MUST** BE satisfactory.
- Samples received after 7 days from collection date will **NOT** be tested.

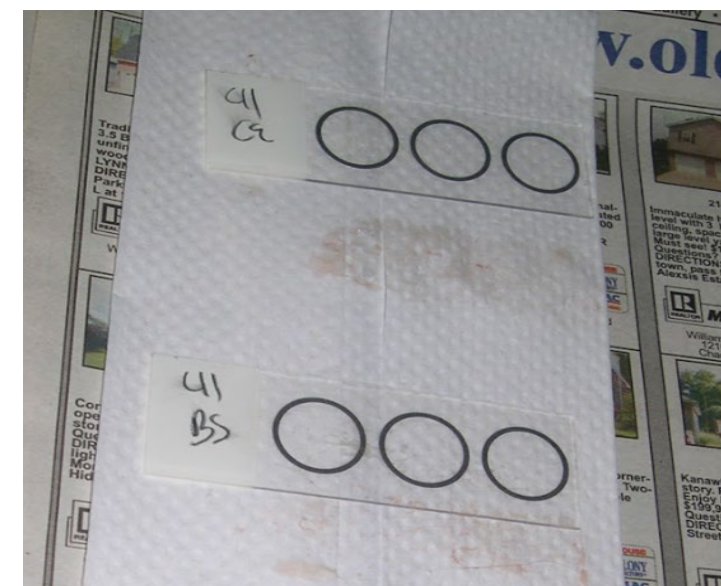


Slide Impressions

- Cross sections of each part of the brain are made on a 3 well Touch Impression slide.
- Individual specimen slides are placed in separate slide jars and fixed in Acetone for 1 hour at -20°C .



www.dhhr.wv.gov/ols



DFA- Direct Fluorescent Antibody Staining

- FITC tagged monoclonal antibody
(fluorescein isothiocyanate)
- 2 conjugates:
 - Monoclonal
 - Polyclonal
- Negative Control Conjugate

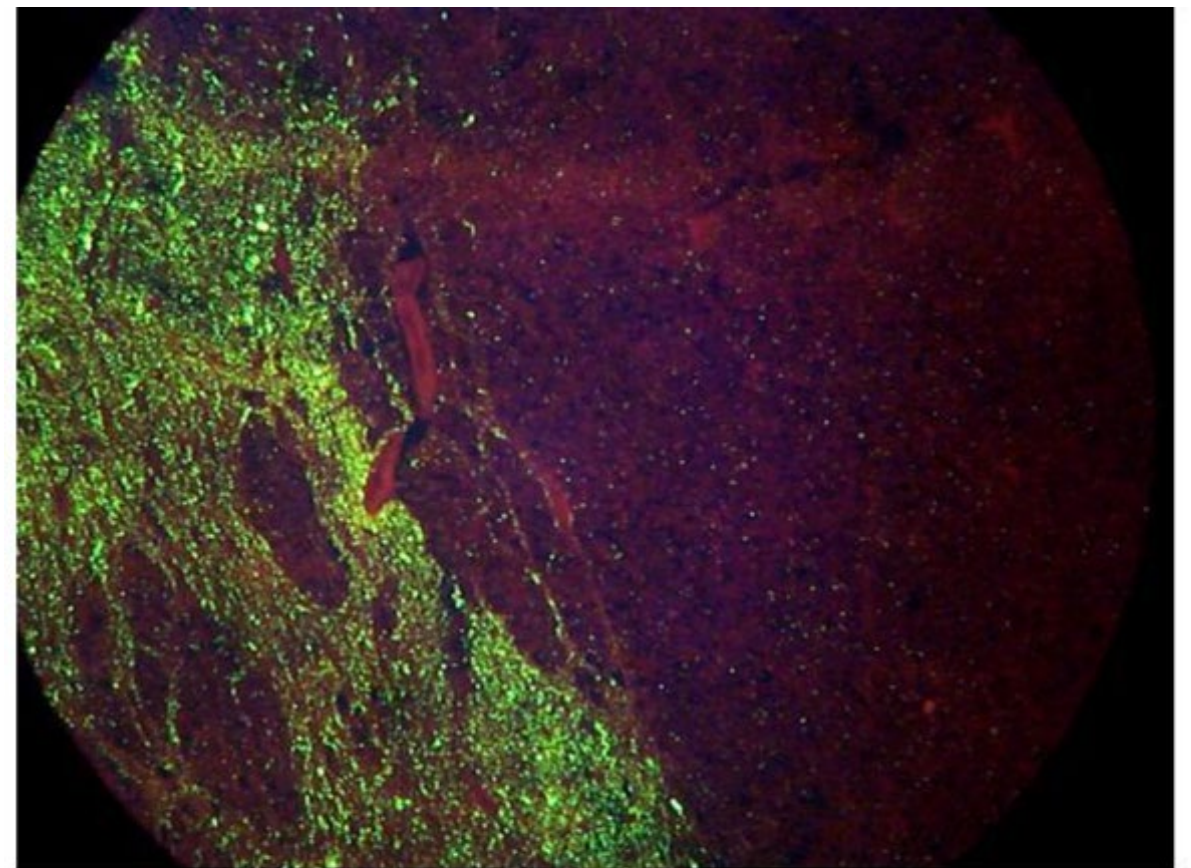
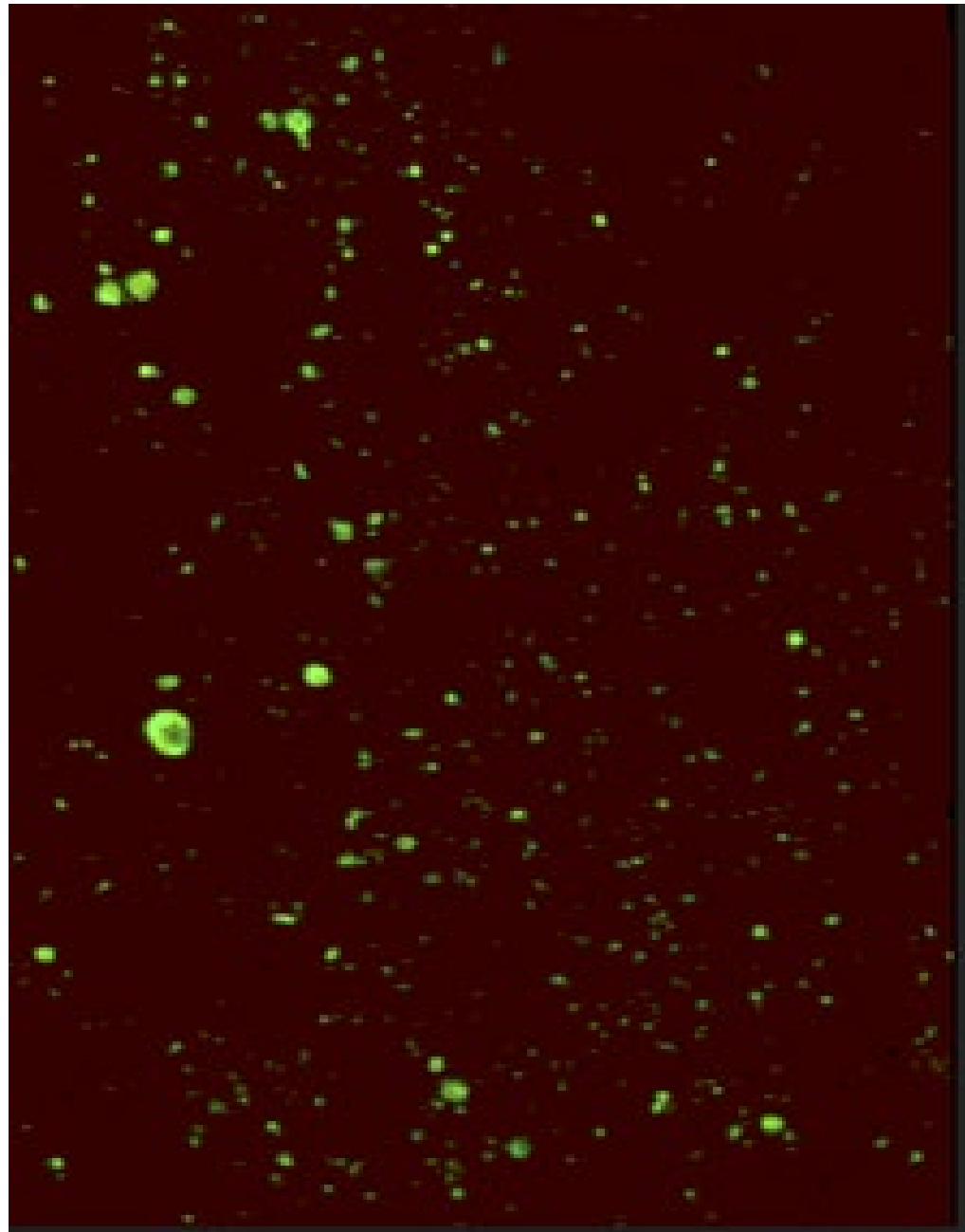


Figure 1. DFA test of a transverse section (cross-section) of Brain stem from a rabies infected donkey showing unilateral virus spread (200X magnification, frozen section).

DFA- Positive



- Positive control is graded on intensity and distribution.
- 3-4+ Intensity
- 3-4+ Distribution considered positive

www.cdc.gov/ncidod/dvrd/rabies (Professional Resources)

DFA- Negative



- Negative control
- Non-specific staining
- Counter stain

www.cdc.gov/ncidod/dvrd/rabies (Professional Resources)

www.dhhr.wv.gov/ols

Non-diagnostic Specimen

- Specimen has been buried
- Badly decomposed
- Areas of brain not distinguishable
- Repeated DFA with non-specific staining

COMMON PROBLEMS

- Tying off the bag
- Excessive blood in bag
- Live animals
- IDing multiple specimens in one bag
- Shipping delays – Choose the right carrier
- Using a sufficient amount of freezer packs

Report



WVDHHR/BPH - Office of Laboratory Services

167 11th Avenue, South Charleston, WV 25303
Phone: (304) 558-3530 Fax: (304) 558-6210
Andrea M. Labik, Sc.D - Laboratory Director

MICROBIOLOGY

Lab Number: R08000001-01
Species: Raccoon
Vaccination Status: Unknown

Submitter:
COW COUNTY HEALTH DEPARTMENT
123 Rabies Blvd.
Racketty Coon, WV 55555

Area of Brain: All Areas
Condition of Brain: Satisfactory
Date Collected: 05/05/2005
Date Received: 05/06/2005
Wild or Owned Animal: Wild
County Where Found: Cow
Name of Owner:
Address Where Found: 456 Rabies Blvd, Racketty Coon, WV 55555
Name of Exposed: Ima Bit
Address: 456 Rabies Blvd / Racketty Coon, WV
Comments:

Reason for Testing: Human Exposure
Exposure Type: Bite

Surveillance Data:

Animal Number:
Latitude:
Longitude:
Brainstem
Specimen
Collected By:

Test: Rabies-DFA

Analyte
Rabies Direct FA

Result
POSITIVE

Interpretation
Positive for Rabies

Comments:

Report Approved By Christl Clark

Date Reported: 04/15/2008

This document contains confidential health information that is privileged, confidential and exempt from disclosure under law. If you have received this information in error, please call (304)-558-3530 and arrange for return or destruction.

- All reports sent to original submitter
- Positive reports sent to epidemiology and county health department where animal was from/found
- Negative reports sent to county health department where animal was from/found

Contacts



OLS MAIN PHONE - 304-558-3530

Extension

Micro Supervisor- General
20136

Nicole Haddox

Rabies
20135 or 20137

Nicole Haddox
John Barry
Hayley Breeding
Hailey Brooks

Rabies Cell Phone (5pm Friday- 8am Monday and Holidays)

304-550-9882

Presented By



John Barry

Laboratory Scientist III

WV Office of Laboratory Services

167 11th Avenue S. Charleston, WV 25303

Phone: 304-558-3530 ext 20137

Fax: 304-558-6210

Email: john.f.barry@wv.gov

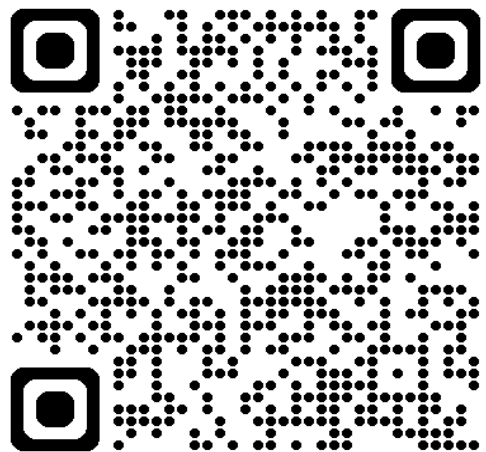
Questions??



Thursday, May 14



Animal Bites in West Virginia and Updates to Control the Spread of Rabies



PRESENTERS:

John Barry, BSc, West Virginia Office of Laboratory Services

Eric Dotseth, MS, West Virginia Bureau for Public Health



wvruralhealth.org/WIN