



Infectious Disease SOP— Rabies

Original Effective Date:

8/2008

Review / Revision Date:

7/20/17

Environmental Health
Procedure:

2017.07.012

Maintenance Steward: Epidemiology Supervisor

History: ☐ New ☐ Revised ☐ Archived

Organizational Scope:

☐ Full Agency ☒ Administration ☒ Community Services ☒ Environmental Health ☐ Health Services

Frequency of Review:

☐ Annually ☒ Biennially ☐ 5 Years ☒ As Needed ☐ Other:

Location:


S-Drive: S: → Users → Common → Policies & Procedures

Website: www.lucascountyhealth.com/employee-login/

Hardcopy: Environmental Health and Community Services Director's Office

Archived Version(s): S:\CSRP\SOGs\Archives

Requisite Signatures

☒

 Medical Director

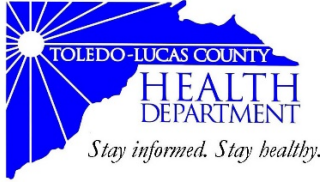
 7-20-17
 Date
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 Health Commissioner

 07-20-17
 Date
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 Director of Environmental Health & Community Services

 7/20/2017
 Date



Infectious Disease SOP— Rabies

I. Policy

It is the policy of the Toledo-Lucas County Health Department (TLCHD) to adhere to all state, federal, and local statutes governing the management and case investigation of individual communicable disease cases and outbreaks within Lucas County.

II. Scope

This standard procedure applies to the Infectious Disease Program when investigating one case of rabies. When an outbreak occurs, call ODH ORBIT. In an outbreak, refer to the “Epi and Surveillance OB Procedure.”

III. Purpose

This procedure/process establishes guidelines for rabies investigations. Per the Ohio Administrative Code (OAC) 3701-3, rabies is a Class A disease and must be reported immediately via telephone according to 3701-3-02, 3701-3-03, 3701-3-04, and 3701-3-05 of the Administrative Code.

IV. Background

The rabies virus is a rhabdovirus of the genus *Lyssavirus*. The prodromal period in human rabies usually lasts 2-10 days and is characterized by pain and paresthesia at the wound site. The acute neurologic period in humans can last 2-21 days, where the disease presents as encephalitis which is difficult to distinguish from other causes of encephalitis. An excitation or furious phase includes hyperesthesia and extreme sensitivity to light and sound, dilation of pupils and increase in salivation. Ascending or asymmetrical paralysis can also occur. Most patients also experience swallowing dysfunction due to muscle spasms. This excitation phase can persist until death or change to a generalized paralysis. Patients with furious rabies usually die within a week whereas those with paralytic rabies may survive up to 30 days.

The source of the rabies virus is virus-laden saliva, or brain and spinal cord fluids of rabid animals. It is a disease that occurs worldwide, primarily in animals, but numerous human cases occur in developing countries. The main mode of transmission for rabies is through the bite of a rabid animal, or where saliva and other potentially infectious material is introduced into an open wound or mucous membrane. In dogs, cats, and ferrets, the virus can appear in the saliva 3-5 days before onset of symptoms and will continue until death. The incubation period in humans is usually 31-90 days, with a range from 9 days to a year or more, depending on the site of exposure.

The CDC can perform antemortem testing for human rabies as long as saliva, neck biopsy, serum, and CSF samples are ALL submitted in addition to a completed CDC Patient Information Form from the physician. The ODH Zoonotic Disease Program at 888-722-0544 needs to be contacted to arrange for testing pre-approval. The ODH Laboratory can be reached at 888-634-5227 for

submission criteria to test animals for rabies. Each specimen must be accompanied by a completed Rabies Test Submission Form.

V. Case Definition

A. Clinical Description

1. An acute encephalomyelitis that almost always progresses to coma or death within 10 days after the first symptom

B. Laboratory Criteria for Diagnosis

1. Detection of Lyssavirus antigens in a clinical specimen (preferably brain or nerves surrounding hair follicles in the nape of the neck) by direct fluorescent antibody, OR
2. Isolation (in cell culture or in laboratory animal) of a Lyssavirus from saliva or central nervous system tissue, OR
3. Identification of Lyssavirus specific antibody by IFA test or complete rabies virus neutralization at 1:5 dilution in the cerebrospinal fluid, OR
4. Identification of Lyssavirus specific antibody in the serum of an unvaccinated person, OR
5. Detection of Lyssavirus viral RNA using RT-PCR in saliva, CSF, or tissue

VI. Case Classification

A. Confirmed:

1. A clinically compatible case that is laboratory confirmed by testing at a state or federal public health laboratory

B. Not a case:

1. This status is not generally used when reporting a case, but may be used to reclassify a report if investigation revealed it was not a case.

**** Laboratory confirmation by all of the above methods is strongly recommended.*

VII. Procedure

The procedure/process of the Infectious Disease Program is to ensure that all cases are investigated in the same format.

When a report is received, a member of the ID team will complete an interview of the contact using the CDC Possible Human Rabies – Patient Information Form and the ODH Rabies Test submission form for animal testing, both of which can be found in S:\CSRP\SOGs\Rabies. Once the CDC form is completed, information from the form should be entered into ODRS AND faxed to ODH at 614-564-2456. The mailing address for this form is: ODH, Outbreak Response and Bioterrorism Investigation Team (ORBIT), 246 N. High St, Columbus, OH, 43215.

The ODH animal testing submission form is submitted with animal specimen to ODHL, who reports positive animal rabies cases to the local health department and to the Zoonotic Disease Program.

A. Outbreak Response

1. Call ODH ORBIT at 614-995-5599 for guidance

B. Public Health Investigation Process

1. ODRS:
 - a. Check to see if the patient is entered into ODRS. If not, enter the patient into ODRS
 - b. Key fields for ODRS reporting include:
 - i. Import status
 - ii. Date of illness onset
 - iii. All fields in the Epidemiology module
2. Investigation
 - a. Case investigation should start as soon as possible following notification.
 - b. Contact the patient's provider and/or hospital to obtain demographic information, symptoms, date of onset of symptoms, pertinent test results, travel history, animal contact, immunization history or rabies vaccine administered.
 - c. Once the provider and/or hospital ICP has been contacted call the patient/parent and complete the interview.
 - i. Provide education from the fact sheet on the IDCM website at <http://www.odh.ohio.gov/pdf/IDCM/rabies.pdf>. This information is also located in S:\CSRP\SOGs\Rabies.
 - 1) If no one answers, leave a message requesting a call back.
 - 2) Mail an informational letter requesting a callback.
 - 3) Continue to attempt phone contact with the patient for three more times in the span of 48 hours after the informational letter was sent.
 - 4) After interview is completed, ask the patient/parent whether they would like more information. If they express an interest, ask what the best method to deliver the information would be (e.g. e-mail, mail, etc.)
3. Treatment
 - a. Intensive supportive care and rabies immune globulin (RIG) are the only therapies available.
4. Isolation/Follow Up Specimens
 - a. Not applicable
5. Prophylaxis
 - a. Pre-exposure is recommended for individuals who are at an increased risk of being exposed to rabies (e.g. veterinarians, animal control, etc.)
6. Contacts (Exclusion)
 - a. Human contacts should also be evaluated for whether or not to treat with rabies post-exposure vaccination series. If post-exposure immunization is appropriate, previously non-immunized immunocompetent contacts should receive Rabies Immune Globulin (RIG) and four doses of Human Diploid Cell Vaccine or Purified Chick Embryo Cell Culture Vaccine.
 - b. Animals which have bitten a person or caused a non-bite exposure should be appropriately quarantined or sacrificed and tested for rabies. Cases should be handled according to state regulations including Ohio Revised Code (ORC) 955.26 and Ohio Administrative Code (OAC) 3701-3-28 and 3701-3-29.
7. Notification

- a. Notify TLCHD contacts immediately after investigation with patient (in sequential order)
 - i. Supervisor of Epidemiology
 - ii. Director of Community Services and Environmental Health
 - iii. Medical Director
 - iv. Health Commissioner
 - b. The environmental Services area of the Lucas County Health Department will be notified.
 - c. If livestock are involved in exposure to a known rabid animal, contact the Ohio Department of Agriculture (ODA), Division of Animal Health, 8995 East Main Street, Reynoldsburg, Ohio 43068, 614-728-6220 or 800-300-9755.
 - d. Public health recommendations and interventions will be shared with the public by the PIO or to specific individuals within 6 hours of identification of the agent as determined by ODH and supervisory staff at the local health department. An OPHCS alert will be distributed within 12 hours of a positive test result as determined by supervisory local health department staff and ODH.
8. Documentation
- a. Enter information into ODRS as it is obtained.
 - b. Include a note documenting investigation, education, and intervention.
Sample: Spoke with mother by phone on [date]. EDUCATION: Reviewed disease facts, transmission, and symptoms. DISEASE COURSE: Client has history of [medical conditions] and started [symptoms] on [date]. Started [treatment] on [date]. HOUSEHOLD: HH contacts include [relationships]. All are [asymptomatic/symptomatic] [Include information about sensitive settings for HH contacts]. OCCUPATION: [job] TRAVEL HISTORY: [Include information about travel history within the past 2-3 weeks]. MAILING: Mailed fact sheet and cover letter to home address.
 - c. Include a note for each occupation, activity, or other notification and any actions taken.
9. Closing a case
- a. Ensure that all available information is entered into ODRS before closing. Close case and print record. Staple with investigation sheet and any related documents and file in the appropriate file drawer for the current year located in the CSRP office.

VIII. Appendices

None

IX. Reference/Investigation Forms

- A. Rabies Disease Factsheet is located in S:\CSRP\SOGs\Rabies.
- B. For additional information please refer to the ODH IDCM at <http://www.odh.ohio.gov/pdf/IDCM/rabies.pdf>

X. Maintenance

A. Review

1. The Infectious Disease standard operating procedures are to be reviewed every other year or as needed to ensure compliance with both agency and accreditation standards.
2. If guidance/recommendations from the Centers for Disease Control, Ohio Department of Health or law changes regarding this infectious disease, TLCHD will follow the most up-to-date guidance and adjust the SOP(s) as needed.

B. Revision

1. All changes made to this SOP are to be noted on the **Record of Change**. Substantial changes will require renewed signatures from all applicable parties. This includes changes to the intent, scope, procedures, or policy statement.
2. Changes in style, format, grammar or minor error correction will not require renewed signatures but must be indicated on the Record of Change.

Record of Change

(Required for all procedures)

Date of Change	Changes Made By	Changes Made/Notes	Approved By