



Technical Bulletin

Division of Public and Behavioral Health



Date: November 8, 2016
Topic: Management of Animal Bites among Humans from a Rabies Susceptible Species
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To: Rural Health Care Providers and Rural Medical Facilities

Current Situation: During 2015, the Office of Public Health Informatics and Epidemiology (OPHIE) program received a total of 1,318 reports of animal bites among humans from a rabies susceptible species, statewide. Additionally, in 2015 there were eight animals laboratory confirmed as having the rabies virus, all of which were bats. As of October 23, 2016, OPHIE has recorded 1,145 cases of animal bites among humans from a rabies susceptible species. There have been a total of 11 bats laboratory confirmed as having the rabies virus. The purpose of this technical bulletin is to provide guidance to healthcare providers on how to manage persons who have been exposed to a rabies susceptible species.

Control of the Exposed Person and Postexposure Prophylaxis (PEP) for Animal Bites: The correct approach to handling an exposed person depends upon the circumstances and the type of animal they were exposed to:

1. **Dogs, cats and ferrets:** When an exposure to a dog, cat or ferret has occurred you must consider the following; (1) vaccination status of the animal; (2) availability of the animal for evaluation; (3) whether the bite was provoked or unprovoked; (4) prevalence of rabies in the biting species in the geographical area in which the incident occurred.
 - If the animal is available for a 10 day quarantine and is not exhibiting symptoms of rabies, then PEP should be deferred. If the animal develops symptoms during the 10 day quarantine then PEP should be initiated immediately regardless of the animal's vaccination status.
2. If the animal is not available for a 10 day quarantine, the exposed person and their physician need to make a joint decision on PEP. In the case of a provoked attack, PEP is generally not recommended. In the case of an unprovoked attack, or abnormal behavior is exhibited on the part of the animal, PEP is recommended.
3. **Bats:** In the case of a known direct exposure to a bat or if a bat has been found in a room with a sleeping person, an unconscious person or someone that is not able to affirm that no direct contact occurred, the following is recommended:
 - If the bat has been captured, then it should be submitted to the Nevada Department of Agriculture's Animal Disease Laboratory (ADL) for rabies testing.
 - If the rabies test is negative there is no need to initiate PEP.
 - If the rabies test is positive, equivocal or uninterpretable, then PEP needs to be initiated as soon as possible.
 - If the bat was not captured and is therefore not available for testing then PEP should be initiated immediately.If there has been no known direct exposure to a bat and the bat has not been found in a room with a sleeping person, an unconscious person or someone unable to affirm that no direct contact occurred, then PEP need not be initiated.
4. **Other Wild Animals:** An exposure to a wild animal such as, a raccoon, fox, skunk, coyote, or large rodent needs to be evaluated based upon the following circumstances:
 - If the exposure occurred outside Nevada, then consideration must be given to the prevalence of rabies in the species within the area in which the exposure occurred. If rabies is prevalent in the species within the area of the incident, then PEP should be given regardless of whether the attack was provoked or unprovoked.
 - If the animal was captured then it needs to be submitted to the ADL for rabies testing as soon as possible.
 - If the test can be completed within 5 days of the exposure, then PEP can be delayed until test results are final.
 - If the rabies test result is negative there is no need to initiate PEP.
 - If the rabies test result is positive, equivocal or indeterminate then PEP should be initiated as soon as possible.
 - If the test cannot be completed within 5 days then PEP should be initiated.
 - If PEP has been initiated and test results are negative; PEP should be discontinued.
 - If the animal was not captured, PEP should be initiated immediately.

The following tables outline the PEP schedules:

Rabies PEP Schedule for Persons Without a History of Vaccination:

Rabies Immune Globulin (RIG):
<ul style="list-style-type: none">Administer 20 IU/Kg body weight. If anatomically feasible, as much of the full dose as possible should be infiltrated around the wound(s), and any remaining volume should be administered intramuscularly (IM) at a site distant from vaccine administration. Also, RIG should not be administered in the same syringe as vaccine. Because RIG might partially suppress active production of antibody, no more than the recommended dose should be given.
Vaccine:
<ul style="list-style-type: none">Human diploid cell vaccine (HDCV) or purified chick embryo cell vaccine (PCECV) 1.0 mL, IM (deltoid area).A regimen of 4 doses of rabies vaccine should be administered IM to previously unvaccinated persons with no immunosuppression. The first dose of the 4-dose course should be administered as soon as possible after exposure. This date is considered day 0 of the post-exposure prophylaxis series. Additional doses should then be administered on days 3, 7, and 14 after the first vaccination.CDC recommends that persons with compromised immune systems receive a 5th dose on day 28 after the first vaccine. In addition, titers should be drawn to verify immunity 1-2 weeks after the 5th dose.

Rabies PEP Schedule for Persons With a History of Vaccination:


Rabies Immune Globulin (RIG):
<ul style="list-style-type: none">RIG should not be administered.
Vaccine:
<ul style="list-style-type: none">Human diploid cell vaccine (HDCV) or purified chick embryo cell vaccine (PCECV) 1.0 mL, IM (deltoid area). One each on days 0 and 3.

- These recommendations are for persons in all age groups, including children.
- History of vaccination is defined as any person with a history of a complete pre-exposure vaccination regimen with HDCV, PCECV, or rabies vaccine absorbed, or previous vaccination with any other type of rabies vaccine and a documented history of antibody response to the prior vaccination.
- The deltoid area is the only acceptable site of vaccination for adults and older children. For younger children, the outer aspect of the thigh can be used. Vaccine should never be administered in the gluteal area.
- All PEP should begin with immediate and thorough cleansing of all wounds with soap and water. If available, a virucidal agent such as povidone-iodine solution should be used to irrigate the wounds

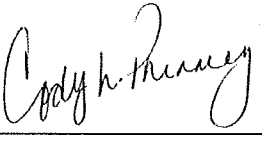
Directions for Rabies Testing Submission: The potentially rabid or susceptible animal will need to be sent to the ADL for testing. Please note that prior to the preparation and shipping of samples, you are asked to consult with the ADL's Rabies Laboratory by calling (775) 353-3718 to coordinate sample submission. You can also contact the Nevada Division of Public and Behavioral Health (DPBH) at 775-400-0333 for assistance. Samples should be sent to this address: *Animal Disease Laboratory, Nevada Department of Agriculture, 405 S 21st Street, Sparks NV 89431.*

Reporting: All animal bites/exposures need to be reported to the Nevada Division of Public and Behavioral Health (DPBH). When reporting a rabies case, please use the *Confidential Morbidity Report* form:
[http://dpcb.nv.gov/Programs/OPHIE/dta/Forms/Public_Health_Informatics_and_Epidemiology_\(OPHIE\)_-_Forms/](http://dpcb.nv.gov/Programs/OPHIE/dta/Forms/Public_Health_Informatics_and_Epidemiology_(OPHIE)_-_Forms/)

For More Information: Please contact DPBH M-F 8:00 AM to 5:00 PM at (775)684-5911. The after-hours line can be contacted at (775)-400-0333. Rabies virus specific information can be found at <http://www.cdc.gov/rabies/index.html>



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This information was retrieved from the Centers for Disease Control and Prevention:
<http://www.cdc.gov/rabies/index.html> 2