

ANIMAL BITE REPORTING

The District Health Department Communicable Disease and Vector-borne Disease Programs would like to once again clarify communicable disease reporting as it pertains to the reporting of an “animal bite by a rabies-

susceptible species.” Nevada

Administrative Code (NAC) 441A.155 defines a “rabies-susceptible animal as any mammal, including, but not limited to, a bat, cat, dog, cow, horse, ferret, cougar, coyote, fox, skunk and raccoon, and any wild or exotic carnivorous mammal.”



In the past, local animal control agencies participated in animal bite reporting by picking up reports from the hospital emergency departments. This system has been discontinued. Animal control agencies will not pick up animal bite reports from the local hospital emergency departments. **To simplify reporting, clinicians must report animal bites in the same manner as all other**

communicable diseases as mandated in NAC 441A. Failure to report may endanger your patient.

Please use the attached **Animal Bite Report** form to report animal bites. **Fax Animal Bite Report forms as soon as they are completed to our confidential fax line at 328-3764.** For information on reporting or completion of the form, please call 328-2447.

Management of bites by these animals is the responsibility of the district health officer, who by local codes, is the designated “rabies control authority.” The District Health Department Vector-borne Disease Program investigates these bites. The manner in which such animals are handled depends on: the species of animal, the circumstances of the bite, the epidemiology of rabies in the area, the biting animal’s history, current health status and potential for exposure to rabies. To contact the Vector-borne Disease Program, please call 785-4599. For information on preventing dog bites visit: <http://www.cdc.gov/ncipc/duip/biteprevention.htm>.

2003 RABIES DEATH HIGHLIGHTS THE IMPORTANCE OF SEEKING IMMEDIATE TREATMENT FOR BITES FROM POTENTIALLY RABID ANIMALS

Rabies is a rapidly progressive, incurable viral encephalitis that is, with rare exception, transmitted by the bite of an infected mammal. On September 14, 2003, a previously healthy 66 year-old man who resided in Trinity County, California, died from rabies approximately six weeks after being bitten by a bat. This report summarizes the investigation by the Trinity and Shasta County Health Departments and the California Department of Health Services (CDHS). Persons should avoid direct contact with bats; however, if such contact occurs, the exposed person should visit a health care provider immediately. The health care provider must report the exposure to the District Health Department pursuant to NAC 441A.

In September 2003, the patient was admitted to a hospital emergency department (ED) for assessment of atypical chest pain. He had a two-week history of mild, nonspecific complaints (e.g., drowsiness, chronic headache, and malaise), a five-day history of progressive right arm pain and paresthesias, and a one-day history of right-hand weakness. The arm pain was severe enough to wake him from sleep and progressively worsened. He also described a sharp pain radiating bilaterally up the right arm to his axilla and left chest. The pain was relieved by administering nitroglycerin in the ED. The patient reported being bitten

by a bat on the right index finger while in his bed approximately five weeks before admission. He removed the bat from his home, and it flew away. The patient washed the wound but did not seek rabies postexposure prophylaxis (PEP) at that time. Because the patient reported to the ED at an early stage of rabies infection, with predominantly local symptoms near the bite site, rabies vaccine, rabies immune globulin, ribavirin and interferon-alpha were administered on the day of admission; a second dose of rabies vaccine was administered three days later.

On admission, he was afebrile, alert and oriented but had decreased right upper extremity strength, decreased sensation to light touch, and slight impairment in his ability to concentrate. His white blood cell (WBC) count was elevated at 13,900 cells/microliter (normal: 3,700-9,400 cells/microliter). All other laboratory values were within the normal range.

The patient had steady neurologic decline during the following week with confusion and disorientation. He became febrile on the fourth hospital day and was intubated for airway protection. Electromyography of his right and left upper extremities indicated distal demyelinating polyneuropathy. By the fifth hospital day, he had a right lung infiltrate, and his electroencephalo-

Please share this document with all physicians & staff in your facility/office.

gram showed diffuse slowing. Two days later, he died. Four family members and two of 40 health care workers involved in the patient's treatment received rabies PEP as a precautionary measure. The patient's wife received PEP because she had been asleep in the same bed as the patient when the bat bit him and possibly had been exposed to the same bat.

Antemortem specimens were sent to the Viral and Rickettsial Disease Laboratory (VRDL) at CDHS and to CDC for evaluation. The specimens included multiple saliva and serum samples, nuchal skin biopsy, urine and spinal fluid. Postmortem corneal impressions also were obtained. A nested, reverse transcription polymerase chain reaction assay performed on saliva samples was positive for evidence of rabies virus nucleic acid. Sequence analysis demonstrated 100% homology with a rabies virus variant associated with the silver-haired bat (*Lasionycteris noctivagans*).

Editorial Note:

Although human rabies is rare in the United States, clinicians and public health workers should suspect rabies when a history of possible bat contact is known or when unexplained atypical progressive neuropathy or unusual febrile encephalitis is observed. Persons coming in direct contact with bats should seek consultation with their health care providers immediately to receive PEP, if appropriate.

Rabies is an acute, progressive and fatal disease. The only documented survivors received rabies prophylaxis before the onset of illness. However, an aggressive approach to therapy might be attempted in patients who are in an early stage of clinical disease. A combination of therapies is suggested, including rabies vaccine, rabies immune globulin, ribavirin, interferon-alpha, monoclonal antibodies and ketamine. The patient described in this report visited the ED at an early stage with a predominant symptom of paraesthesia at the bite site. He was treated within approximately 24 hours of admission, albeit unsuccessfully, with the first four of these agents.

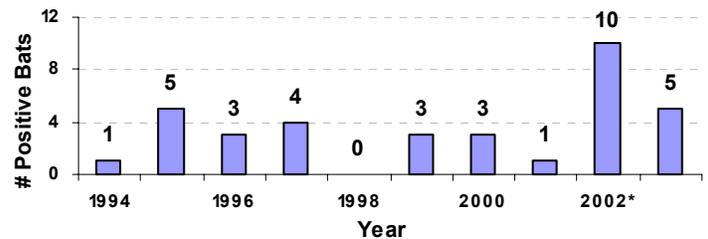
This fatality follows two other recent bat-associated cases of human rabies in California (in Glenn County in 2002 and in Amador County in 2000). However, these cases were associated with a Mexican free-tailed bat (*Tadarida brasiliensis*) rabies virus variant, and neither patient identified a definitive bat exposure. During 1990-1998, of 22 bat-associated rabies infections, 16 (75%) were associated with the virus variant found among silver-haired and eastern pipistrelle bats. Properties of these viruses might allow infection and replication under broader conditions than those of other rabies virus variants.

During 1990-2000, a total of 24 (75%) of 32 U.S. human rabies cases were caused by bat-associated rabies virus variants. In 22 (92%) of these cases, no documentation

of a bite existed; however, this does not mean that a typical bite exposure did not take place. Instead, such a history was not uncovered during presentation or case investigation.

Human rabies is preventable with the proper and timely administration of rabies PEP. However, if a patient does not recognize the risk associated with an animal bite, PEP probably will not be obtained. When a bat is found in living quarters and a strong possibility exists that an exposure might have occurred, the animal should be submitted to the Nevada State Department of Agriculture Animal Diseases Laboratory in Reno for diagnostic testing. However, if the animal is not available for testing, PEP should be administered when there is a strong probability of exposure.

Rabies Positive Bats, Washoe County, 1994-2003.



No laboratory-confirmed cases of human-to-human transmission from patients to health care workers or family members have been documented. Delivery of health care to a patient with rabies is not an indication for PEP unless a bite has occurred or an exposure of mucous membranes or nonintact skin to potentially infectious body fluids has occurred. Adherence to standard safety precautions for health care workers will minimize the risk for exposure.

Public education and awareness and keeping pets and livestock vaccinated are crucial in making this disease a rare occurrence in humans in the United States. Persons who are bitten by a potentially rabid animal should immediately:

- 1) disinfect and wash the wound,
 - 2) capture the animal safely,*
 - 3) contact the Vector-borne Diseases Program by calling 328-2434, and
 - 4) see a physician for evaluation of the need for PEP.
- * *The Vector-borne Diseases Program will capture and transport rabies susceptible wild mammals that are involved with a possible human exposure to the Nevada State Department of Agriculture Animal Diseases Laboratory for rabies testing.*

Adapted from: Centers for Disease Control and Prevention. Human Death Associated with Bat Rabies — California, 2003 *MMWR* 2004;53:33-35.

PLEASE PRINT

See below for instructions on completion of form.



FAX COMPLETED REPORTS TO: (775) 328-3764

ANIMAL BITE REPORT

Today's Date: ___/___/___ Name of Reporting Facility: _____

Person Bitten
Name: _____ DOB: ___/___/___
Street Address: _____
City: _____ Zip: _____
Phone: Home: _____ Work: _____

Owner of Animal
Name: _____
Street Address: _____
City: _____ Zip: _____
Phone: Home: _____ Work: _____

Animal
Species: Dog Cat Other: _____
Age: _____ Breed: _____ Color: _____
Sex: Male Female Unknown
Seems: Well Sick Vicious
Was: Leashed Fenced Loose
Current Rabies Shot? Yes No Unknown

Bite
Address or place where bite occurred: _____
Date Bitten: _____
Time _____ AM PM
Where on body bitten: _____
Skin Broken? Yes No

Medical care obtained? Yes No If yes, complete the following:
Physician: _____ Hospital: _____

Explain circumstances of bite incident: _____

This information is accurate to the best of my knowledge.

Signature of victim or reported by: _____

DO NOT FILL IN, FOR OFFICE USE ONLY
Date Quarantined: _____ Location of Quarantine: _____
Date Received: _____ Date out of Quarantine: _____
Remarks: _____

INSTRUCTIONS FOR COMPLETION: PLEASE PRINT LEGIBLY. Complete all sections in full with exception of "Do not fill in, for office use only." Fax completed form as soon as possible to the District Health Department at 328-3764. This allows the local rabies control authorities to evaluate & monitor the biting animal & fulfills your requirement to report animal bites under NAC 441A. The original form should stay with the patient's chart. Questions? Please call 328-2447.