



**Missouri Department of Health and Senior Services**

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Professional Colleagues:

Since 2001, the animal rabies testing policy has stated that the only specimens accepted for testing would be those from animals involved in cases with public health significance. This letter serves as a reminder that this policy is still in effect and, in fact, that specimens will continue to be scrutinized closely to ensure compliance with submission criteria. Prior to 2001, specimens may have been submitted purely for surveillance purposes or at the insistence of persons with a perceived but unfounded rabies risk. Such specimens are not accepted since testing them would utilize resources that should be expended on higher priority incidents.

Rabies testing should be requested only in those instances where a public health or medical decision needs to be made, such as making disposition recommendations for animals or determining if a bite patient requires rabies post-exposure prophylaxis (RPEP). Submitters should be familiar with guidelines related to preventing human rabies after exposure to rabid or possibly rabid mammals, as detailed in *Human Rabies Prevention – United States, 2008, Recommendations of the Advisory Committee on Immunization Practices (ACIP)*, Centers for Disease Control and Prevention, MMWR, May 7, 2008, Vol. 57. The primary purpose of these recommendations is to assist medical providers in performing rabies risk assessments following the possible exposure of patients to rabies so that a proper determination can be made regarding the administration of RPEP. This document also provides criteria which help in determining when animal specimens should be submitted for rabies testing.

ACIP guidelines state that under most circumstances there are two types of exposure: bite and nonbite. The most dangerous and common route of rabies exposure is from the bite of a rabid mammal. Nonbite exposures to rabies might also occur when the virus, from saliva or other potentially infectious material (e.g., neural tissue), is introduced into fresh, open cuts in skin or onto mucous membranes. Indirect contact and activities (e.g., petting or handling an animal, contact with blood, urine or feces, and contact of saliva with intact skin) do not constitute exposures. Details regarding human/animal interaction must be specifically ascertained during the epidemiologic investigation of each potential rabies exposure to ensure that animal testing is conducted only when needed and that RPEP is not administered unnecessarily.

Specimen submission criteria for rabies testing are as follows:

A. Specimens for rabies testing will be accepted only when there is known exposure or significant potential exposure<sup>1</sup> of any of the following to a possibly infected animal:

- Humans

- Pets
- Domesticated animals (e.g., horses, livestock)
- Exotic or non-native animal species maintained for husbandry purposes or in zoos

B. Specimens for rabies testing will not be accepted in the following instances:

- Animals (including bats) when there has been no exposure history as described above
- Decomposed or destroyed brains, where testing material is unavailable (specimens should not be submitted when damage to the head of the animal is obvious and extensive; laboratory staff will determine the testability of specimens when damage to the brain, if any, is not obvious)
- Juvenile bats (also referred to as “pinkie” bats or “pups”) submitted with the mother bat<sup>2</sup>

C. Other specimens may be accepted on a case-by-case basis after prior consultation with staff from either the State Public Health Laboratory or the Office of Veterinary Public Health. Contact numbers are provided below.

Because rabies is a continuing threat in Missouri, efforts should be made to educate the public, health care providers, the media and policy makers regarding this disease. Policy makers should promote compliance with rabies control ordinances where they exist, and should encourage adoption of such ordinances in jurisdictions lacking them. To avoid exposure to rabies, Missouri residents should:

- ensure dogs, cats, and ferrets are up-to-date on rabies vaccinations. Vaccinations are also available for horses, cattle, and sheep;
- keep pets under control; do not allow them to run loose;
- avoid contact with stray pets and wild animals;
- not keep wild animals or wild animal crosses as pets;
- report animal bites and injuries to a health care provider;
- never handle a pet directly after it has been exposed to wildlife unless they are wearing gloves and other protection, since the pet could be carrying residual saliva from an infected animal.

For questions concerning laboratory testing, please contact the State Public Health Laboratory at 573-751-3334. For rabies risk assessment, animal disposition recommendations, and all other questions, please contact the Office of Veterinary Public Health at 573-751-6113. Thank you for your cooperation.



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Footnotes:

<sup>1</sup> “Significant potential exposure” applies to bite and nonbite exposures from all mammals, but is of special consideration when evaluating bat exposures. Submitters should be familiar with guidelines related to preventing human rabies acquired from bats, as detailed in the 2008 ACIP guidelines (cited above), page 13, “Bat Exposures.” While each case must be decided on its own merits, the recommendations generally state that if a person is “awake and aware” when in the presence of a bat (for example, “in the same room as the bat” in a house), then the person “should not be considered as having been exposed to rabies.” This implies that, since the person should not be considered as having been exposed, he/she should not receive RPEP even if the bat is not available for testing. This approach provides an objective manner in which patient risk can be assessed and helps ensure that RPEP is not given when exposure is unlikely to have occurred. The latter is particularly important since the administration of RPEP is not without risk to the patient, the production of human rabies biologics is limited and periodic shortages occur, and RPEP is expensive. Logically, if RPEP is not indicated in those instances where a person is “awake and aware” in the presence of a bat (even if the bat is not subsequently available for testing), there is no reason to submit for testing bats encountered under such circumstances even if the bats are available. Thus, a “significant potential exposure” to a bat or other mammal is one in which a medical provider would recommend RPEP for the patient after conducting a rabies risk assessment in accordance with CDC guidelines if the animal was not available for testing.

<sup>2</sup> A “juvenile bat” is defined as any young bat without fur (usually found with the mother bat). The rationale for not testing juvenile bats is: (a) The juvenile’s main route of exposure would be through its mother, so only the mother bat will be tested, and (b) The likelihood that a juvenile would bite a person or pet is very small. Juvenile bats found in the absence of a mother bat will be tested provided they meet one or more of the criteria noted in paragraph A, above, and provided enough brain material is present for testing.