

Frequently Asked Questions About Bats and Rabies For Healthcare Providers

NH Department of Health and Human Services

In response to a regional increase in the use of rabies post-exposure prophylaxis (PEP), decreased local human rabies immune globulin (HRIG) supply, and increased consultations regarding indications for PEP, the New Hampshire Department of Health and Human Services created this Frequently Asked Questions sheet for healthcare providers to help guide decisions about rabies PEP. The information presented here is largely taken from the Advisory Committee on Immunization Practices (<http://www.cdc.gov/mmwr/preview/mmwrhtml/00056176.htm>). However, not every situation is well addressed by national guidelines and there may be insufficient data to know the risk-benefit ratio of PEP provision.

Why does exposure to bats raise concern about rabies?

Between 2000 and 2006, 17 (89%) of the 19 cases of domestically acquired human rabies in the United States involved variants of rabies virus associated with bats. Many of these cases had a history of exposure to bats (e.g., awakening to find a bat on the body); however, only 5 cases reported an actual bat bite. This finding suggests that bats may expose people to rabies through a bite that was either ignored or unnoticed.

The teeth of bats are so small that a bite may not bleed, or be visible, and the wound may not be painful. Thus, a person may not realize that an exposure has occurred or may not take the exposure seriously enough to seek medical attention, and they may fail to report the exposure.

Although a small percentage of wild bats are infected with the rabies virus (<1%), given the connection between bats and domestically acquired human rabies and the possible difficulty in recognizing an exposure to bats, there are circumstances when rabies postexposure prophylaxis (PEP) may be indicated without history of an obvious bat bite, as described below.

When should a person exposed to a bat receive rabies post-exposure prophylaxis (PEP)?

Post-exposure prophylaxis should be considered when:

- Direct contact between a person and a bat has occurred, AND
- Rabies cannot be ruled out by testing the bat.
- With certain high-risk bat exposures (e.g., bite to the face), PEP should be started before testing results are available.

Note, however, that PEP is not necessary if the person can be certain a bite, scratch, open wound, or mucous membrane exposure (i.e., bat saliva or neural tissue into the eyes, nose, or mouth) did not occur.

When a bat is found indoors and rabies cannot be ruled out by testing the bat, PEP may be considered for persons who were in the same room as the bat and who might be unaware that a bite or direct contact had occurred (e.g., a sleeping person awakens to find a bat in the room or

an adult witnesses a bat in the room with a previously unattended child, mentally disabled person, or intoxicated person). In general, PEP would not be warranted for other household members. Information regarding the ability of the bat to travel to other parts of the household (e.g., through open doors) and the ability of household members to recognize a bat exposure will assist in determining further PEP needs.

In addition to rabies post-exposure prophylaxis, what else should occur with individuals exposed to rabies by bats?

Wound management and evaluation of tetanus vaccination are important in decreasing the risk of rabies and other infections. Individuals with bats in their household should contact a professional about bat proofing their home. Information on bat proofing is also available at <http://www.cdc.gov/rabies/bats.html>.

What are the risks from rabies vaccine and Rabies Immune Globulin (RIG)?

Serious problems from rabies vaccine are very rare.

Mild problems from rabies vaccine include:

- soreness, redness, swelling, or itching where the shot was given (30% - 74%)
- headache, nausea, abdominal pain, muscle aches, dizziness (5% - 40%)

Moderate problems from rabies vaccine include:

- hives, pain in the joints, fever (about 6% of booster doses)
- illness resembling Guillain-Barré Syndrome (GBS), with complete recovery (very rare)

Rabies Immune Globulin: Local pain and low-grade fever might follow administration of RIG. Although not reported specifically for RIG, angioneurotic edema, nephritic syndrome, and anaphylaxis have been reported after receipt of immune globulin (IG). These reactions occur so rarely that a causal relationship between IG and these reactions has not been established.

Examples of situations in which there is a reasonable probability of bat rabies exposure (PEP should be considered if rabies cannot be ruled out by testing the bat):

- Child touches a live or dead (non dried-out) bat
- Teenager or adult touches bat without seeing the part of the bat they touched
- Bat flies into someone of any age and touches bare skin (i.e., they may have had bat saliva introduced through an unrecognized scratch, bite, or mucous membrane contact)
- Person awakens to find a bat in the room with them
- Bat found near unattended child or person with sensory or mental impairment

Examples of situations in which there is less evidence to support a reasonable probability of bat rabies exposure (depending on the circumstances, PEP probably should not be considered):

- Teenager or adult touches the back or wing of a bat while looking at it
- Person has contact with a completely dried bat carcass

- Bat flies past an awake teenager or adult who does not feel it touch them
- Bats are heard or seen in walls or attic of house

For additional questions about rabies prophylaxis or having an animal tested for rabies please contact the New Hampshire Department of Health and Human Services, Communicable Disease Control Section at 603-271-4496 during normal business hours or 800-852-3345 x4496 during non-business hours.