Prevention of Rabies in Humans:

Bat Exposure Assessments

Since a bat can transmit rabies to a person through superficial contact or an unnoticed encounter, any potential exposure to a bat requires a thorough evaluation and risk assessment. If possible, bats involved in human exposures should be safely collected (preferably by Animal Control) and submitted for rabies testing at the State Laboratory of Public Health (http://slph.ncpublichealth.com/virology-serology/rabies.asp).

Bat exposures require special consideration. People do not always know how they might become exposed to rabies, or understand the danger of rabies exposure. In the United States, most recent human rabies cases have been attributed to bat variant rabies, which is almost always fatal to humans. Many of these bat exposures were unrecognized or were not taken seriously by the exposed person, and the infecting agent was not identified until it was too late for treatment. (see CDC, www.cdc.gov/rabies/location/usa/surveillance/human_rabies.html). Bats with rabies may appear normal or may seem sick or be found weak or dead – simple observation cannot determine infection. Although fewer than three out of every 100 bats submitted to the SLPH are found to be rabies-positive, testing is the only way to determine if a bat has rabies.

According to the Journal of the American Veterinary Medical Association, 33 cases of human rabies have been reported in the United States since 2002, and only three of those cases were not associated with exposure to bats (JAVMA, Vol 241, No. 6, September 15, 2012, http://avmajournals.avma.org/toc/javma/241/6).

Important Points about Bat Exposures:

- **If any person has been potentially exposed to a bat, the bat should be submitted for testing without delay. If the bat is not available OR if it is not tested and found to be negative within 48 hours of the exposure, start rabies post-exposure prophylaxis (PEP).**

- Recommend that the owner/manager of the building call a Wildlife Damage Control Agent (www.ncwildlife.org/Trapping/WildlifeDamageControlAgent.aspx) to investigate, look for evidence of bat infestation and bat guano, determine bats’ access to the building and living spaces, and to exclude bats from living spaces. See Bats in Buildings (http://epi.publichealth.nc.gov/cd/lhds/manuals/rabies/docs/bats_in_bldgs.pdf).

- If bats have infested the building, they may be flying in and out at will. If this is the case, do not submit the bat(s) for testing as there is no way to tell whether a captured bat is the one that may have exposed the person. **In this situation, rabies PEP should be initiated promptly for all persons who were potentially exposed in the building.**

- Bat exposures may be difficult to recognize, and should be carefully assessed and explained to those who may be affected because:
  - Bats have tiny, sharp teeth that inflict limited injury, so a bite may not be evident;
Some bat-related rabies viruses can result in infection after inoculation into superficial (shallow) layers of the skin (a scratch or nick by a tooth);

A person’s recall of a bat encounter may be inaccurate if it occurred several weeks or months earlier, or if a baby, young child or a person with cognitive impairment or chemically altered mental status was exposed;

The bat may have been found in a room or in close vicinity to someone who may have been sleeping or napping; and

The person who was exposed may not understand the seriousness of a potential rabies exposure and may be difficult to convince.