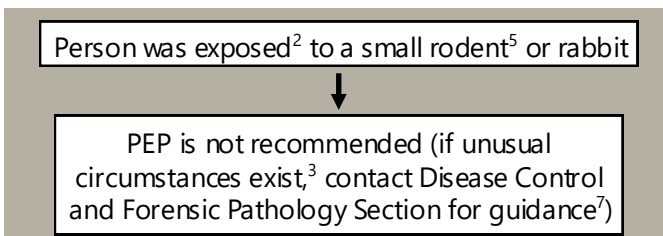
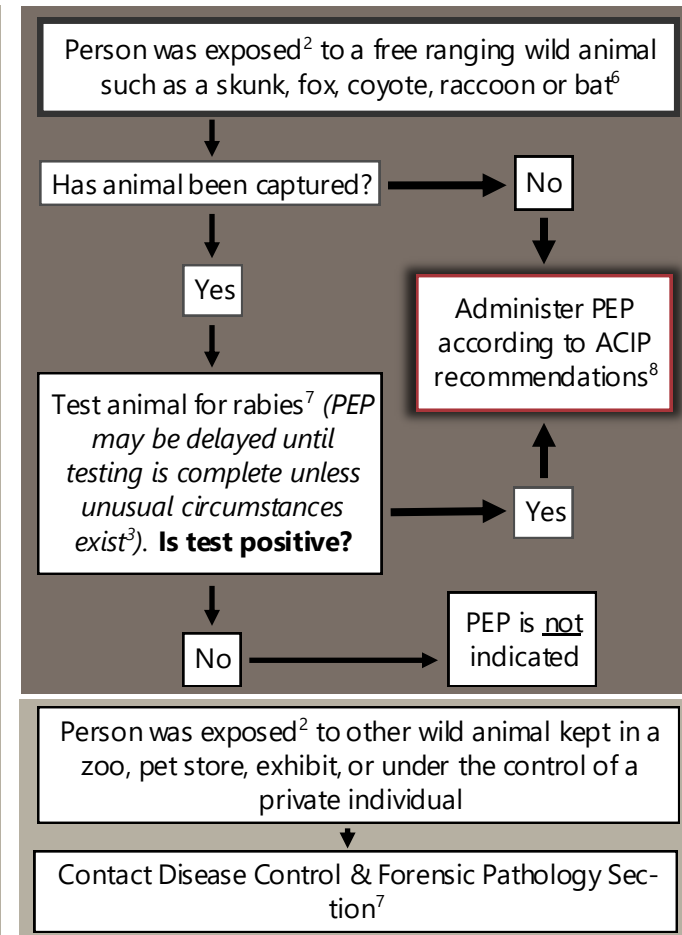
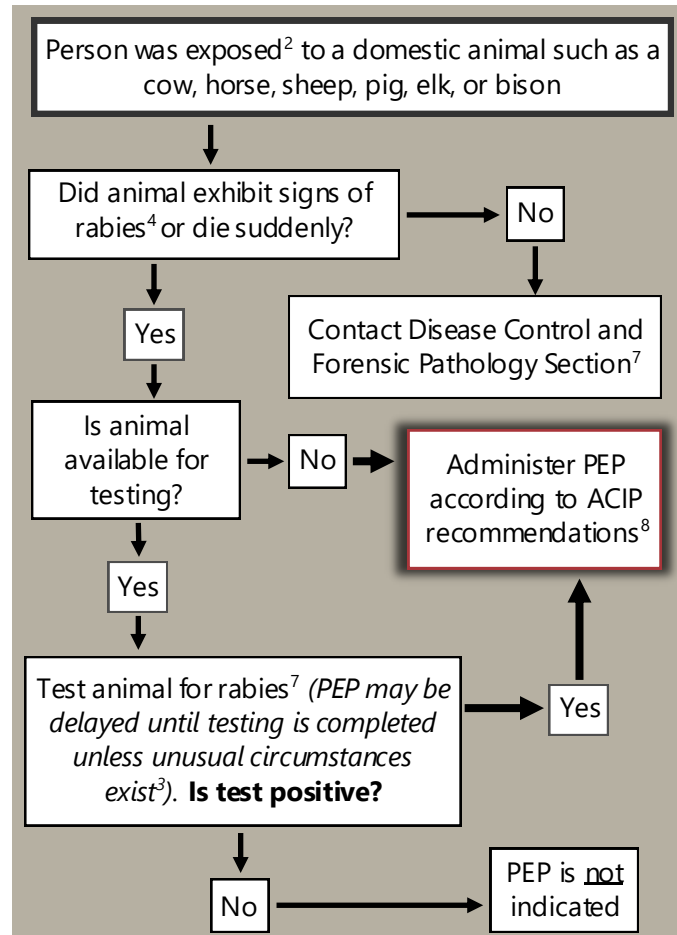
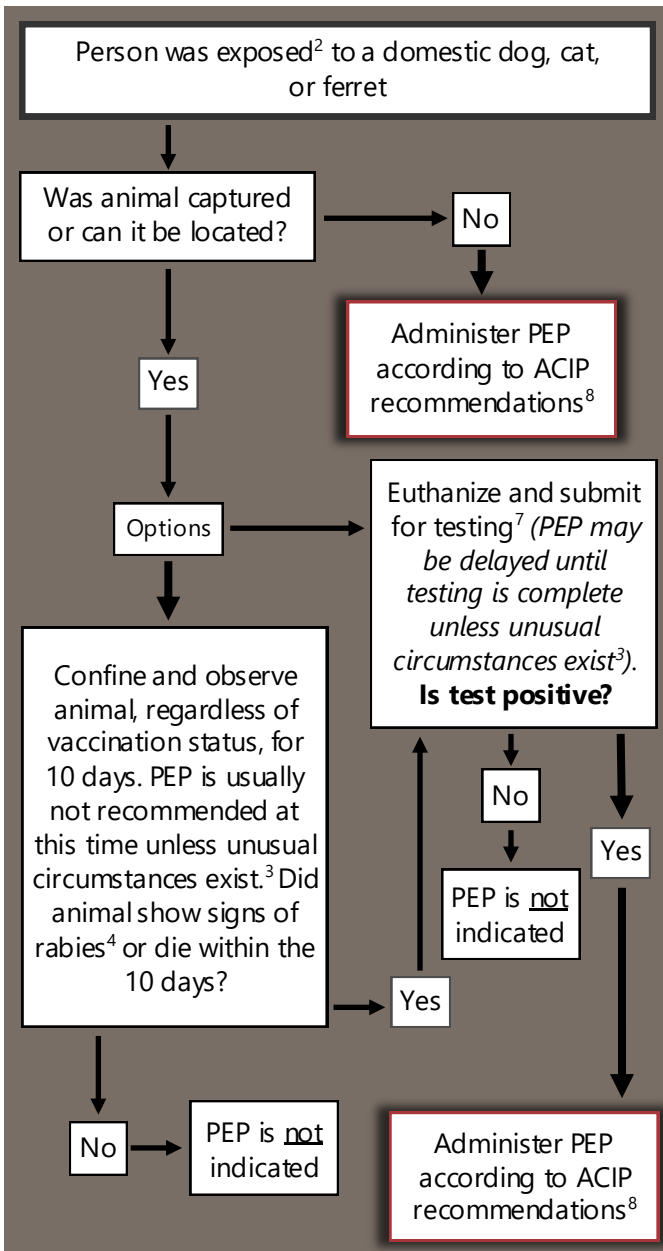


Rabies Exposure Assessment¹ Algorithm



1. Risk assessment should include the type of exposure, the species of animal involved, and circumstances of the exposure incident (e.g., appearance and behavior of animal, provoked or unprovoked attack, etc.).
2. Two types of exposures exist. A bite exposure is any penetration of the skin by teeth. A nonbite exposure is contamination of open wounds, abrasions (including scratches) or mucous membranes (e.g., mouth, nose, eyes) with saliva or other potentially infectious material (e.g., cerebrospinal fluid, spinal cord, brain tissue). Direct contact with a bat is also an exposure (see 6). If no exposure occurred, PEP is not necessary.
3. If the animal exhibited any sign(s) of rabies (see 4), the attack was vicious or unprovoked, or the bite(s) occurred in the head or neck region, consider starting PEP immediately.
4. Signs of rabies may include any of the following: excitability, vicious attacks, biting, agitation, restlessness, aggression, lack of fear, excessive salivation, aversion to water, inability to swallow or drink, muscular dysfunction, coordination or gait irregularities, paralysis, convulsions, avoidance of contact with humans or other animals, lethargy, and loss of appetite.
5. Small rodents include squirrels, hamsters, mice, rats, gerbils, chipmunks, gophers, moles, and voles.
6. Any potential exposure to a bat requires a thorough evaluation. See reverse for additional information.
7. See reverse for contact information for rabies exposure consultation and rabies testing laboratories in ND.
8. See reverse for ACIP recommendations for rabies PEP.

Bat Exposures

Any direct contact between a human and a bat should be evaluated for an exposure. If the person is reasonably certain a bite, scratch, or mucous membrane exposure did not occur, PEP is not necessary. If the bat is available for testing and the test is negative, PEP is not necessary. The following situations may qualify as exposures requiring consideration of PEP:

- Finding a bat with a person who may be unaware that direct contact had occurred (ex. An adult witnesses a bat in the room with a previously unattended child, mentally disabled person, or intoxicated person)
- A deeply sleeping person awakens to find a bat in the room

Examples of exposures that are unlikely to require PEP:

- Bats are heard or seen in walls or attic of a house
- Person has contact with a completely dried-up bat carcass

Please contact the Disease Control and Forensic Pathology Section for consultation regarding potential exposure to bats.

ND Contact Information

Rabies Exposure Consultation in ND

NDHHS Disease Control and Forensic Pathology Section

800-472-2180 or 701-328-2378

After hours contact 701-220-0819

Rabies Testing Laboratories in ND

NDHHS Laboratory Services Section

701-328-6272

After hours contact 701-400-2772 or State Radio at 800-472-2121

NDSU Veterinary Diagnostic Laboratory

701-231-7527 or 701-231-8307

Animal Health and Wildlife Contacts in ND

North Dakota Department of Agriculture, State Veterinarian's Office

701-328-2655

North Dakota Game and Fish Department

701-328-6300

Post-exposure Prophylaxis (PEP) for Rabies

The Advisory Committee on Immunization Practices (ACIP) recommends that unless a person has previously completed the rabies vaccination regimen (either pre- or post-exposure) or is immunosuppressed, PEP should always consist of human rabies immune globulin (HRIG or RIG) and four vaccine doses. RIG and the first dose of the 4-dose vaccine should be administered as soon as possible after exposure (day 0). Additional doses of vaccine should be administered on days 3, 7, and 14. Previously vaccinated persons should receive 2 vaccine doses, the first dose as soon as possible after the exposure (day 0) and the second dose 3 days later (day 3). Persons with immunosuppression should receive RIG and five vaccine doses. RIG and the first dose of the 5-dose vaccine should be administered as soon as possible after exposure (day 0). Additional doses of vaccine should be administered on days 3, 7, 14, and 28.

Every attempt should be made to adhere to the ACIP's recommended vaccination schedules. For most minor deviations from the schedule (i.e., delays of a few days for individual doses), vaccination can be resumed as though the patient was on schedule. If substantial deviations from the schedule occur, reinitiation of the entire series may be required. Contact the Disease Control and Forensic Pathology Section for guidance on deviations from the vaccine schedule.

For additional information on rabies PEP and vaccine availability in North Dakota, please visit www.hhs.nd.gov/rabies/vaccine-information.

References

1. Human Rabies Prevention – United States, 2008: Recommendations of the Advisory Committee on Immunization Practices (ACIP). CDC MMWR 2008; 57 (No. RR -3).
2. Use of a Reduced (4-Dose) Vaccine Schedule for Postexposure Prophylaxis to Prevent Human Rabies: Recommendations of the Advisory Committee on Immunization Practices (ACIP). CDC MMWR 2010; 59 (No. RR -2).
3. Compendium of Animal Rabies Prevention and Control, 2016: National Association of State Public Health Veterinarians, Inc. Journal of the American Veterinary Association. Vol.248,