

TO: Vermont Health Care Providers and Health Care Facilities
FROM: Mark Levine, MD, Health Commissioner

Appropriate Use of Rabies Postexposure Prophylaxis (rPEP) in Vermont

Background:

As we enter the peak of summer, reports of animal bites and bat encounters are increasing. While rabies is a consideration in these circumstances, a thorough risk assessment should always be performed prior to administration of rabies postexposure prophylaxis (rPEP). Unnecessary administration of rPEP can strain hospital and patient resources, crowd emergency department waiting rooms, and expose otherwise healthy patients to a variety of communicable diseases.

What does rabies look like in Vermont?

Rabies is a deadly viral disease of the brain that infects mammals. In Vermont, rabies is most commonly found in wild animals such as raccoons, skunks, foxes, bats and woodchucks. Cats, dogs and livestock can also get rabies if they have not been vaccinated. So far in 2020, five animals – three raccoons and two cats – have tested positive for rabies across the state.

What is considered a rabies exposure?

The virus is primarily spread through the bite of an infected animal. It is also possible for transmission to occur when infected saliva or neurologic tissue contacts a mucous membrane or open wound, such as a scratch from the animal. These non-bite exposures very rarely result in rabies.

People cannot get rabies indirectly, such as by petting or handling animals, or from contact with urine, blood, feces, or fomites (such as bowls, beds, or surfaces contacted by potentially rabid animals).

All animal bites must be reported to the local [Town Health Officer](#) or other town official by calling or faxing a completed [Town Health Officer Animal Bite Report Form](#). Health care providers must report the administration of rPEP by faxing a completed [Rabies Postexposure Prophylaxis Report Form](#) to the Health Department's Epidemiology Program at 802-951-4061 or securely e-mailing it to AHS.VDHEpiLabRabies@vermont.gov.

Requested Action:

1. Administer rPEP when appropriate.

rPEP should be given to a patient only when:

- A person is bitten by a wild or domestic animal **and** the animal is not available for observation or testing, particularly if the bite was unprovoked or the animal was acting strangely.
- A bat is found in the same room as a child or a sleeping person, and they cannot definitively rule out that they were bitten or scratched by the bat **and** the bat is not available for testing.
- A person is severely bitten on the head, neck, or face by a wild animal, even if the animal is available for testing. rPEP may be discontinued if the animal tests negative for rabies.

2. Consider delaying rPEP when further diagnostic information will soon be available, based on clinical judgement.

There is no strict timeframe in which rPEP must be started to be effective, but it must be administered before symptoms of rabies develop, which can occur weeks to months after rabies virus exposure. rPEP is more effective at preventing rabies if administration is not significantly delayed after possible rabies exposure. However, if the animal that caused the potential rabies exposure is available for observation (domestic animals only) or testing, rPEP should be delayed until test results are available (about 48 hours once the animal arrives at the Health Department Laboratory) or until the end of the 10-day observation period as enforced by a Town Health Officer. rPEP is not necessary if the animal tests negative for rabies or if the animal (for dogs, cats, and ferrets) remains alive 10 days after biting a human. Small mammals or rodents such as rabbits, mice, and chipmunks are not routinely tested for rabies, but in rare circumstances may be submitted for testing with prior approval from the Health Department. These animals are rarely infected with rabies and are not known to transmit rabies to humans.

3. Properly administer rPEP based on current ACIP recommendations.

The following quick reference table was recreated from the [ACIP Rabies Vaccine Recommendations](#).

Patient Vaccination Status	Intervention	Regimen*
Not previously vaccinated	Wound Cleansing	All rPEP should begin with immediate thorough cleansing of all wounds with soap and water. If available, a virucidal agent such as povidone-iodine solution should be used to irrigate the wounds.
	Human Rabies Immunoglobulin (HRIG)	Administer 20 IU/kg body weight. If anatomically feasible, the full dose should be infiltrated around and into the wound(s), and any remaining volume should be administered at a site (intramuscular [IM]) distant from vaccine administration. Also, HRIG should not be administered in the same syringe as vaccine. Because HRIG might partially suppress active production of rabies virus antibody, no more than the recommended dose should be administered.
	Vaccine	Human diploid cell vaccine (HDCV) or purified chick embryo cell vaccine (PCECV) 1.0 mL, IM (deltoid area [†]), 1 each on days 0, [§] 3, 7 and 14. [¶]
Previously vaccinated**	Wound Cleansing	All rPEP should begin with immediate thorough cleansing of all wounds with soap and water. If available, a virucidal agent such as povidone-iodine solution should be used to irrigate the wounds.
	Vaccine	HDCV or PCECV 1.0 mL, IM (deltoid area [†]), 1 each on days 0 [§] and 3.

* These regimens are applicable for persons in all age groups, including children.

† The deltoid area is the only acceptable site of vaccination for adults and older children. For younger children, the outer aspect of the thigh may be used. Vaccine should never be administered in the gluteal area.

§ Day 0 is the day dose 1 of vaccine is administered.

¶ For persons with immunosuppression, rabies PEP should be administered using 5 doses of vaccine on days 0, 3, 7, 14, and 28.

** Any person with a history of pre-exposure vaccination with HDCV, PCECV, or rabies vaccine adsorbed (RVA); prior rPEP with HDCV, PCECV or RVA; or previous vaccination with any other type of rabies vaccine and a documented history of antibody response to the prior vaccination.

For more information about rabies or to consult about a possible rabies exposure, please call the Vermont USDA Rabies Hotline at 1-800-4-RABIES (1-800-472-2437) or 211, or visit www.healthvermont.gov/rabies. An epidemiologist can be reached after-hours at 1-802-863-7240.

If you have any questions about the Health Alert Network (HAN), please contact the HAN Coordinator at 802-859-5900 or vthan@vermont.gov.

HAN Message Type Definitions

Health Alert: Conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: Provides important information for a specific incident or situation; may not require immediate action.

Health Update: Provides updated information regarding an incident or situation; unlikely to require immediate action.

Info Service Message: Provides general correspondence from VDH, which is not necessarily considered to be of an emergent nature.