

Rabies

Rabies is an acute infection of the central nervous system caused by a neurotropic rhabdovirus of the genus *Lyssavirus*. All mammals, including humans, are susceptible to rabies. In humans, rabies causes a rapidly progressive and fatal encephalomyelitis. The incubation period in humans is usually two to 12 weeks, but there have been documented incubation periods as long as seven years. Bites from infected animals constitute the primary route of transmission. Transplanted organs and corneas from patients with fatal, undiagnosed rabies have also caused infection in recipients.

Though terrestrial rabies of raccoons is prevalent in the Eastern U.S., in Oregon, the main sources are bats and animals that come in contact with rabid bats (foxes and cats). An average of 10% of the bats that are tested in Oregon, are positive for rabies. This is not a random sample of all bats, but generally ones that have come in contact with humans or other mammals. Human exposures to bats should be carefully evaluated in a timely manner.

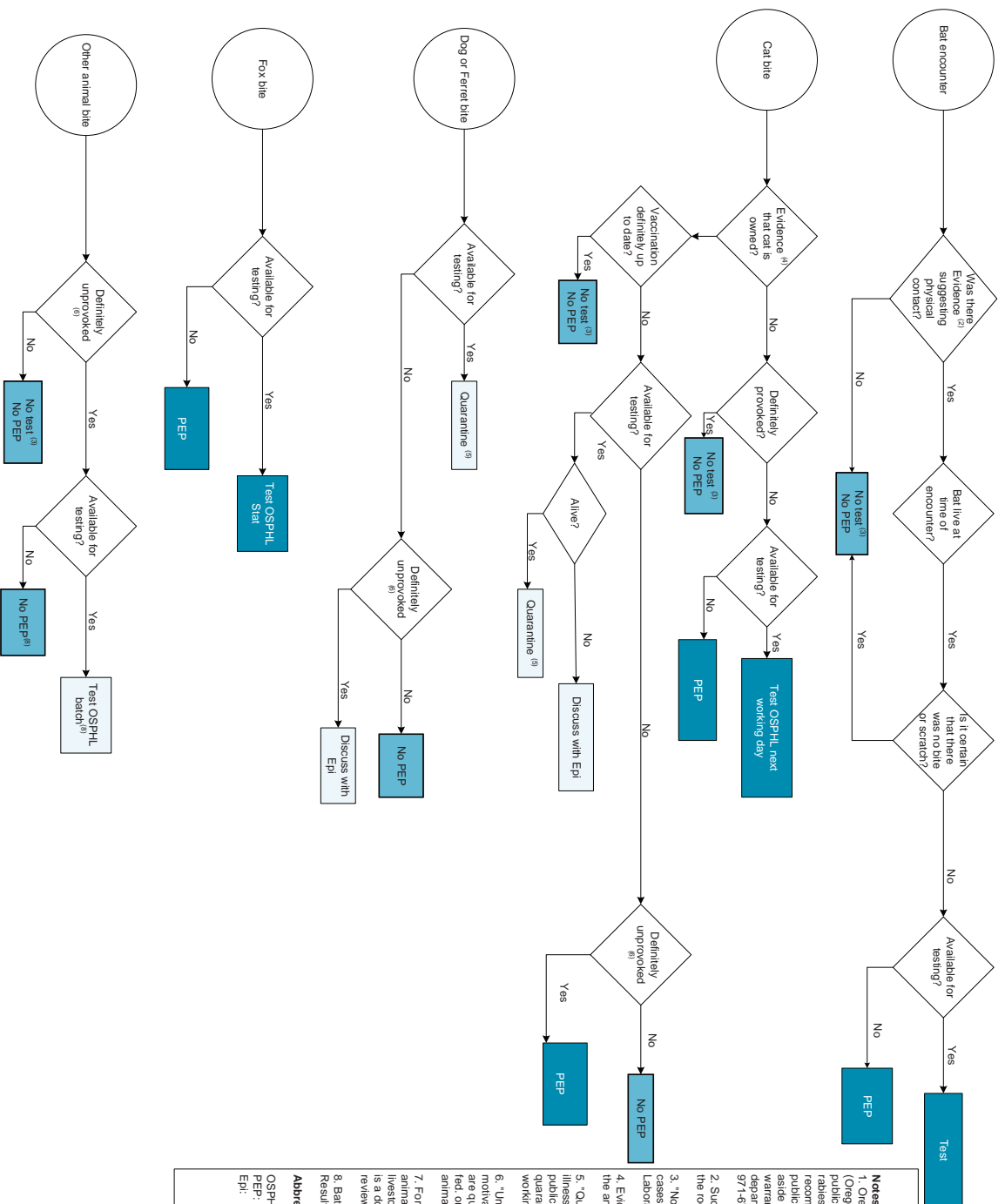
When there is human exposure, testing for rabies should be done at the Oregon State Public Health Laboratories. For animal-to-animal exposures, testing is done at Oregon State University.

Persons not previously immunized for rabies who are exposed to a rabid animal should obtain human rabies immune globulin (HRIG) infiltrated at the site of the bite and five doses of rabies vaccine, one each on days 0, 3, 7, 14 and 28.

Though bats are the reservoir in Oregon, canine rabies still accounts for the majority of human rabies cases worldwide. Travelers to rabies enzootic countries should be warned to seek immediate medical care if they are bitten by any mammal.

An algorithm to follow for assessment of rabies risk is provided.

Algorithm for Prevention of Rabies After Animal Encounters in Oregon ⁽¹⁾



Notes

- Oregon law mandates reporting of any bite of a human being by any other mammal (Oregon Administrative Rule 333-018-0015[5] [C]); such report should be made to the local public health authority for the jurisdiction in which the patient resides. Decisions about rabies PEP are the purview of the clinician attending the patient; although these recommendations regarding the need for rabies PEP represent the best judgment of state public-health officials, they are not binding on clinicians. Clinicians should be advised that, aside from concern about rabies, prophylaxis against tetanus or bacterial infection might be warranted, depending on the nature of the wound and the animal involved. Local health department personnel are advised to call Acute and Communicable Disease Prevention at 971-673-1111 with specific questions regarding application of these guidelines.
- Such evidence might include, e.g., a young child's waking up, crying, with a bat found in the room.

3. "No Test" means that the animal will not be tested at OSPHL, at state expense. In such cases, the animal may be tested at the Oregon State University Veterinary Diagnostics Laboratory (541-737-3281) at private expense.

4. Evidence of ownership might include, e.g., presence of collar or previous appearances of the animal in a neighborhood.

5. "Quarantine" means confining a dog, cat or ferret for 10 days to observe for signs of illness after biting a human being. The nature of the confinement is determined by the local public health authority. If the animal develops neurological illness, during the period of quarantine, it should be euthanized and its head shipped to OSPHL for testing within one working day.

6. "Unprovoked" implies that in the context of the situation there was no obvious alternative motivation for the animal to bite. A good history is essential. In practice, unprovoked bites are quite rare. Examples of provocation would include being hit by a car, being handled, fed, or caged; being cornered in a garage, having a jogger run past your yard or crowding animal's space, etc.

7. For purposes of determining need for rabies PEP, wolf/hybrids are considered wild animals and not dogs. Wolf-dog hybrids that bite or otherwise expose persons, pets, or livestock should be considered for euthanasia, and rabies examination. Whether an animal is a dog or a wolf-dog hybrid must be determined by a licensed veterinarian, subject to review by the State Public Health Veterinarian or designee (OR 333-019-40022).

8. Batch testing for rabies is generally done at OSPHL on Mondays and Wednesdays. Results are available the following day.

Abbreviations

OSPHL: Oregon State Public Health Laboratory (503-693-4100)
 PEP: Post-Exposure Prophylaxis against rabies
 Epi: Epidemiologist at the Oregon Department of Human Services; Weekdays, nights and weekends 971-673-1111

Rabies tests in Oregon, 1990–2006 (number of positive/number tested)

Year	Bat	Cat	Dog	Fox	Other Animals
1990	1/29	0/61	0/34	0/1	0/14
1991	4/40	1/85	1/54	1/4	0/19
1992	2/29	0/98	0/54	0/4	0/54
1993	2/43	1/96	0/34	4/10	0/59
1994	10/47	0/88	0/58	3/7	0/78
1995	3/47	0/98	0/61	5/5	0/159
1996	3/48	0/51	0/33	0/5	0/58
1997	14/116	1/83	0/52	0/6	0/45
1998	6/95	0/95	0/56	0/3	0/49
1999	11/115	1/95	0/45	0/1	1/47 (Cow)
2000	8/73	0/79	0/56	1/4	0/4
2001	4/59	0/67	0/46	0/1	0/41
2002	12/134	0/102	0/27	2/4	0/29
2003	6/61	0/75	0/36	1/5	0/39
2004	7/88	0/105	0/42	0/2	0/27
2005	8/83	0/100	0/48	0/1	0/23
2006	23/126	0/72	0/26	2/4	0/41
Totals	124/1233	4/1450	1/765	19/67	1/786
1990–2006	(10%)	(0.3%)	(0.11%)	(28%)	(0.1%)

Rabies-positive animals by county - Oregon, 2006

