

STATE OF COLORADO

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Dedicated to protecting and improving the health and environment of the people of Colorado

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RABIES PREVENTION AND CONTROL POLICY RECOMMENDATIONS FOR HYBRID WOLVES REGARDING VACCINATION, BITE FOLLOW-UP AND EXPOSURE TO RABIES October 7, 2009

The ownership of domestic dogs (*Canis familiaris*) cross-bred to wolves (*Canis lupus*), and to a lesser extent coyotes (*Canis latrans*), has been increasing in recent years. The Colorado Department of Public Health and Environment (CDPHE), the National Association of State Public Health Veterinarians (NASPHV), the American Veterinary Medical Association and other public health and animal welfare groups recommend against maintaining hybrids as pets. However, the uniqueness and perceived status conferred by owning a hybrid animal will undoubtedly lead to their increasing popularity.

The Compendium of Animal Rabies Control, produced annually by the NASPHV, has consistently recommended against rabies vaccination for these animals and advises that hybrid-wolves involved in a human bite be euthanized and tested for rabies regardless of the circumstances. There are no rabies vaccines licensed for use in hybrids. The viral shedding period in hybrid-wolves has not been documented to allow an acceptable post-bite observation period to be established.

These strict recommendations create several problems. Recommending against vaccination puts the veterinarian and owner in direct conflict with local mandatory rabies vaccination laws. There are no objective tests or methods to determine if an animal is a hybrid. Such a determination must usually be based on the owner's claim and should be recorded in veterinary records, police reports and summons or other official documents. Owners may claim their mixed breed dog is a hybrid-wolf for prestige or economic purposes or, conversely, hide the fact the animal is a hybrid for fear of legal repercussions. Having to obtain a court order to euthanize a hybrid-wolf involved in a bite could be difficult when the risk of rabies infection is remote and there is no way to prove the animal is truly a hybrid-wolf.

To address these issues the following protocol can be used to deal with hybrid-canine animals. The establishment of rabies in skunk, raccoon or other wild mammal populations in an area increases the risk of a wolf-hybrid incubating rabies after exposure to a wild mammal in Colorado.

RABIES VACCINATION

The decision whether or not to vaccinate a hybrid-wolf rests with the veterinarian and the animal's owner.

While there is no evidence of efficacy, given the biologic similarities between wolves, coyotes and domestic dogs it is very probable that vaccination will result in an antibody response.

An inactivated-virus rabies vaccine could be administered after:

- 1) The owner has been advised that the vaccine is not licensed for use in hybrid-wolves and its efficacy is unknown.
- 2) The owner signs a consent form that acknowledges:
 - a) the unknown efficacy of the vaccine;
 - b) that a hybrid-wolf will not be handled as a domestic dog following a human bite;
 - c) that a hybrid-wolf exposed to a known or suspected rabid animal could be euthanized even if currently vaccinated;
 - d) the release from liability of the veterinarian and their staff, health department, vaccine manufacturer and distributor, and other involved parties.
- 3) The owner's claim that the animal is a hybrid-wolf should be recorded on the rabies vaccination certificate.
- 4) The animal of any owner that refuses to sign a consent form should not be vaccinated.

The consent form should be included in the animal's permanent medical record, with a new consent form signed for each vaccination. Consent forms can be produced by the individual veterinarian, in consultation with their legal representative, using examples from the CSU Veterinary Teaching Hospital or the Colorado Department of Health.

BITE MANAGEMENT

State law requires physicians, veterinarians, and animal owners to report all mammal bites to the local health department or animal control agency. When a hybrid-wolf has bitten a human two courses of action can be taken depending on the probability that the biting animal could be infected with rabies.

- 1) Euthanize and submit the head of the biting animal for testing in accordance with Compendium recommendations. This is highly recommended if the hybrid-wolf lives in an area where terrestrial rabies is endemic (e.g. skunk or fox) and has had opportunity to have contact with such wildlife.
- 2) Quarantine the animal at an animal shelter, veterinarian's office or kennel, at owner's expense, for an extended observation period, arbitrarily 30 days. If the animal dies or exhibits any illness consistent with rabies during this period, immediate euthanasia and rabies testing would be necessary. Home quarantine is not acceptable.

The course of action must be determined on a case-by-case basis. If the biting animal has been in captivity for greater than 6 months in an area where terrestrial rabies has not been documented, has not known to have been exposed to rabies or been in a rabies endemic area, and is not currently exhibiting any signs of illness quarantine could be considered. In every case, the bite victim's family and physician must be advised that while the rabies risk is extremely low there is no absolute guarantee of safety. If the bite victim agrees to observing the animal, quarantine can be used (Figure 1).

If the biting animal originated from an area where terrestrial mammal rabies is endemic, has been exposed to a rabid animal or known rabies host (bat, skunk, raccoon) in the previous 6 months, was a stray, is ill or the victim and physician do not agree to quarantine, euthanasia and testing would be required.

Current rabies vaccination alone is not a sufficient criterion to quarantine a hybrid-wolf involved in a human bite.

RABIES EXPOSURE MANAGEMENT

The effectiveness of rabies vaccine in providing protective immunity to hybrid-wolves exposed to rabies virus is unknown. Therefore, hybrid-wolves that have been exposed to a confirmed or potentially rabid animal should be euthanized. If the owner refuses, the hybrid must be confined for 6 months, at owner's expense, at an animal shelter, veterinarian's office or kennel. Home quarantine is not acceptable.

**Sample: CONSENT FOR RABIES VACCINATION OF A
WILD/DOMESTIC CANINE HYBRID**

ANIMAL INFORMATION: NAME:

SEX: M / F NEUTERED: Y / N HYBRID: wolf / coyote / other: _____ DESCRIPTION (color, markings, etc.):

I, _____, the legal owner of the animal described above, have requested that this animal be given a rabies vaccination. I understand the following information with regard to this use of the vaccine:

- 1) My animal is susceptible to rabies which is a fatal disease. Inactivated rabies vaccines are considered safe to use in this animal, but are **not** licensed for such use because of a lack of scientific studies proving they are effective in preventing rabies in hybrid-animals. The vaccine may not protect my animal if it is exposed to the rabies virus.
- 2) The benefits of administering a rabies vaccine to my animal would include (A) protecting my animal from developing rabies **if** the vaccine does provide immunity, and (B) bringing the animal into compliance with local ordinances mandating rabies vaccinations for canines.
- 3) Even though my animal receives this vaccine, it will be subject to all applicable state and local laws governing animals exposed to the rabies virus. If my animal is exposed to rabies, the Colorado Department of Health may require euthanasia, long-term quarantine at my expense or other measures, **even though my animal has been vaccinated.**
- 4) Even though my animal receives this vaccine, it will **not** be handled as a domestic dog if it is involved in a human bite. If my animal bites a human the Colorado Department of Health may require euthanasia for rabies testing, quarantine at my expense or other measures, **even though my animal has been vaccinated.**

My veterinarian, the rabies vaccine manufacturer and distributor(s), and the Colorado Department of Health have made no representations, warranties or guarantees as to the effectiveness of this vaccine. In consideration of my veterinarian's agreement to administer a rabies vaccine to my animal, I hereby release my veterinarian, his/her associates, partners and employees, the vaccine manufacturer and distributor(s), and the Colorado Department of Public Health & Environment from any and all claims, damages or actions resulting from or connected with the administration of rabies vaccine to my animal. This includes, but is not limited to, adverse reactions to the vaccine, contraction of rabies by my animal, or the subsequent infection of other animals or persons by my animal.

I fully understand the risks, potential benefits, and limitations of administering rabies vaccine to my animal as described in this form and have been given the opportunity to ask questions. All questions were answered to my satisfaction.

Owner's signature Date

Witness's signature Date