

LOCAL AUTHORITY IN RABIES CASES

House Bill 4288 (Substitute H-1) First Analysis (10-17-01)

Sponsor: Rep. Ruth Ann Jamnick
Committee: Health Policy

THE APPARENT PROBLEM:

According to the Centers for Disease Control and Prevention (CDC), rabies is “a preventable viral disease of mammals most often transmitted through the bite of a rabid animal.” Unfortunately, no single test can conclusively show that a living person or an animal is infected with the rabies virus. Although an animal that has been vaccinated is not likely to carry the virus, vaccinations are not always effective. Performing a battery of tests on a living human or animal may yield a more probable diagnosis, but the results remain uncertain, and the additional time required to perform the tests delays the treatment process and may further jeopardize a patient’s life. Thus, instead of determining directly whether the human patient or animal has rabies, health providers need to make quick judgments about the appropriate course of action based on the circumstances surrounding the possible infection.

The surest way to determine whether an animal has rabies is to perform the “direct fluorescent antibody test,” (dFA) on the animal’s brain tissue. A diagnostic laboratory can determine whether an animal was rabid within a few hours of performing the test, but a living animal must be killed before the test can be performed. Although relatively few people would object to a veterinarian’s decision to euthanize a bat, raccoon, or a skunk, owners of livestock and house pets are understandably reluctant to allow their animals to be euthanized, unless there is a high degree of probability that the animal is rabid. If an animal shows a number of virus-specific symptoms or if the circumstances of the bite suggest that the animal may be rabid, pet owners frequently accept—some more willingly than others—a veterinarian’s judgment that the animal ought to be euthanized. Nevertheless, the circumstances of a bite are sometimes unclear (e.g., when a small child is bitten and no one else has witnessed the bite), or are simply too ambiguous to indicate the animal’s likely status. Moreover, rabies-infected animals (and humans) undergo an “incubation period,” during which they carry the virus without showing any

rabies-specific symptoms. The incubation period for dogs, cats, and ferrets typically lasts only about ten days. According to the CDC, the incubation period for other animals can last anywhere from a few days to several years and is generally held to be “indeterminate” for animals other than dogs, cats, and ferrets.

A human who has been bitten by a rabid animal or a potentially rabid animal may be treated with postexposure prophylaxis (PEP). In cases where the person has not begun to experience rabies-specific symptoms, PEP is virtually always successful. PEP involves a course of rabies immune globulin and a series of five doses of vaccine over a four-week period and is begun as soon as practicable. Since one of the doses of vaccine is injected directly into the site of the wound, PEP can be painful—especially for a child, who may have been severely traumatized by the animal bite. PEP can also be expensive, costing upwards of \$1,000 according to the CDC, and several times that much according to the Department of Community Health. Some people believe that a local health officer should have clear statutory authority to order euthanasia for an animal that has bitten a human being if the health officer, after consulting with other health care professionals, determines that such action is appropriate given the circumstances.

THE CONTENT OF THE BILL:

The bill would amend the Public Health Code to allow local health officers, animal control officers, or local health medical directors to order that an animal be euthanized for rabies testing before the expiration of any quarantine period, if an immediate determination of the animal’s rabies status was needed. The bill would only apply to animals other than livestock; “livestock” would mean “species of animals used for human food and fiber or those species of animals used for service to humans.”

More specifically, the bill would amend the section of the health code that allows the department to establish procedures for the control of rabies and the disposition of nonhuman agents carrying rabies. Before ordering the euthanization of an animal, a local health officer, animal control officer, or local health medical director would have to substantiate that the animal had bitten, scratched, caused abrasions to, or contaminated with saliva or other infectious material a human being's open wound or mucus membranes. The order could be issued in lieu of obtaining a court order for the animal's destruction unless the officer or director knew that the animal was currently vaccinated for rabies with an approved vaccine at the time of the incident. Before issuing such an order, the officer or director would be required to take certain actions. First, the officer or director would have to examine the animal for identifying information from a tattoo or subcutaneous microchip, if the animal's owner was unknown and the animal was a dog, "wolf-dog cross," "large carnivore," domestic cat of the species *felis catus*, or ferret of the species *mustela furo*. Second, the officer or director would have to consult with the human's attending physician, the accredited veterinarian who vaccinated the animal for rabies (if available), an accredited veterinarian other than the animal's veterinarian, and any agency that had quarantined the animal. The order itself would have to contain several pieces of information. First, the order would have to state the nature and severity of the injury. Second, the order would have to state the reason an immediate determination of the animal's rabies status is needed. Third, the order would have to state the specific reasons for thinking that the particular animal might have rabies, considering the species of the animal, the circumstances of the bite, the epidemiology of rabies in the area, the animal's current health status, and the potential for the animal's exposure to rabies.

One final change that the bill would make regards rules that the department is required to provide for the confidentiality of reports, records, and data pertaining to testing, care, treatment, reporting, and research associated with communicable diseases and infections. The bill would eliminate a requirement that the department submit these rules for public hearing.

MCL 333.5101 and 333.5111

BACKGROUND INFORMATION:

Transmission of rabies. Typically, the rabies virus is transmitted to humans when a host animal bites a

person, and the virus-containing saliva enters the body through a bite wound. However, the virus is not blood-borne. Instead, it attacks the central nervous system, travelling through the nerves to the spinal cord and brain. Initial human reactions to the virus include non-specific, flu-like symptoms such as fever, headache, and general malaise. Although the disease is still preventable in the early stages, it is nearly always fatal in humans once acute symptoms, including cerebral dysfunction, anxiety, confusion, agitation, delirium, hallucination, and/or insomnia, begin to develop. (People should also seek medical attention if they suspect that they have been bitten by a bat, since it is possible to be bitten by a bat without knowing it and bats are the primary host animal of rabies in the state.) If practicable, the animal should be caught and taken to a veterinarian, which is far easier in the case of a house pet or farm animal than in the case of a wild animal, such as a bat, raccoon, or skunk.

Rabies has allegedly been transmitted from animals to humans through aerosolization—i.e., when people inhale virus particles in a poorly ventilated area with a high concentration of such particles, such as a cave infested with rabid bats. Moreover, rabies has been transmitted from one human to another during cornea transplants in which the cornea donors had rabies. Such cases are rare, however.

AVMA's "Model Rabies Control Ordinance". In 1999 the House of Delegates of the American Veterinary Medical Association (AVMA) approved a "Model Rabies Control Ordinance." Section V of the model ordinance, entitled "Management of Animals that Bite Humans," distinguishes between three groups of animals: (1) vaccinated cats, dogs, and ferrets; (2) dogs, cats, and ferrets that are not currently vaccinated; and (3) other animals. For both vaccinated and non-vaccinated dogs, cats, and ferrets, the AVMA advises a quarantine period "of not less than 10 days. Alternatively, the animal may be humanely euthanatized and tested for rabies in an approved laboratory." The AVMA recommends that other animals "be treated according to the circumstances of exposure, the species, and the presence of rabies in the area. The pathogenesis and length of incubation and virus shedding periods of rabies in those other animals is unknown." The model ordinance continues, "the animal may at the discretion of the Public Health Official be tested by the Rabies Control Authority and immediately euthanatized for rabies testing in an approved laboratory."

Statistics. According to the Department of Natural Resources web site, dogs were the “most important animal host of rabies in the United States” until 1960. Since then, mandatory rabies vaccination has been instituted for dogs. Today, more than 90 percent of all rabies cases reported to the CDC occur in wild animals, such as bats, skunks, raccoons, and foxes, with domestic animals accounting for the remainder. In Michigan, bat rabies is the most prevalent strain, with bats accounting for 67-100 percent of rabies cases between 1990 and 2000.

According to the web site of the Department of Community Health’s Bureau of Laboratories, none of the 3,331 dogs or 367 ferrets tested by the department for rabies between 1996 and 2000 had the disease. (Specimens are tested at the department’s laboratory only when a human exposure has occurred and the specimens have been sent to the department.) Only one of 4,085 cats tested by the department during that time period had rabies. Instead, the statistics indicate, at least for animals that have caused possible human exposure to rabies, that bats and skunks present the bulk of the risk, accounting collectively for 244 of the 257 positive rabies cases for the five-year period. Four out of 18 horses tested positive during the period, as did one out of 241 members of species classified as “other animals”—a category that includes bovine, goats, and pigs, among wild and domesticated livestock and non-livestock animals.

“**Imminent danger**” clause. Section 333.2451 of the Public Health Code states:

(1) Upon a determination that an imminent danger to the health or lives of individuals exists in the area served by the local health department, the local health officer immediately shall inform the individuals affected by the imminent danger and issue an order which shall be delivered to a person authorized to avoid, correct, or remove the imminent danger or be posted at or near the imminent danger. The order shall incorporate the findings of the local health department and require immediate action necessary to avoid, correct, or remove the imminent danger. The order may specify action to be taken or prohibit the presence of individuals in locations or under conditions where the imminent danger exists, except individuals whose presence is necessary to avoid, correct, or remove the imminent danger.

(2) Upon the failure of a person to comply promptly with an order issued under this section, the local health department may petition a circuit or district court having jurisdiction to restrain a condition or

practice which the local health officer determines causes the imminent danger or to require action to avoid, correct, or remove the imminent danger.

(3) As used in this section: (a) “Imminent danger” means a condition or practice which could reasonably be expected to cause death, disease, or serious physical harm immediately or before the imminence of the danger can be eliminated through enforcement procedures otherwise provided.

(b) “Person” means a person as defined in section 1106 [an individual, partnership, cooperative, association, private corporation, personal representative, receiver, trustee, assignee, or other legal entity] or a governmental entity.

FISCAL IMPLICATIONS:

According to the House Fiscal Agency, the bill would not have any direct state fiscal impact. A local health department could incur an increase in costs if the bill prompted an increase in the number of ordered euthanizations and medical tests for rabies of the affected animals. (10-16-01)

ARGUMENTS:

For:

Everyone agrees that a human being’s exposure to rabies is a serious matter. The disease is always fatal in humans, but it is also fully preventable, as long as treatment is begun prior to the onset of acute symptoms. Because there is no sure way to determine whether a living animal or human is infected with the rabies virus, officials must act quickly to determine the proper course of action. Officials often confront a difficult dilemma when an animal who potentially exposes a person to rabies does not have a current rabies vaccination: they must decide whether to euthanize the animal in order to test its brain tissue for the virus or to quarantine the animal and administer postexposure prophylaxis (PEP) to the human patient. The latter option may seem obvious, but PEP can be both painful and costly. Family and close friends of a child who has been bitten by an animal whose rabies status is unknown are particularly concerned about seeing the child subjected to shots after having been bitten, especially when they believe that an animal’s owner has failed to take required preventative measures. Moreover, when an animal’s owner is a family member or close friend of the child, and a health official believes that there is a reasonably good chance that the animal is rabid, the owner will act to

promote the child's physical and emotional well-being, even at the animal's expense. Unfortunately, the various parties involved when an animal bites a human do not always agree on what needs to be done, and it is unclear whether anyone other than an animal's owner has the authority to euthanize the animal. Health officials have reportedly used the "imminent danger" clause of the Public Health Code to justify ordering an animal's euthanization, but individual officers feel more or less comfortable with this "interpretation" when faced with a vociferous pet owner who threatens to sue.

A local health officer, a local health medical director, or an animal control officer should have clear statutory authority to euthanize a non-vaccinated animal or an animal whose vaccination status is indeterminate. The bill contains adequate provisions to protect against an overzealous officer or director. For instance, the officer or director would be required to check for a tattoo or subcutaneous microchip to identify animals whose owner was unknown. This could help to verify their vaccination status and thus reduce the possibility that a vaccinated animal would be euthanized. Also, the officer or director would have to consult with several parties including the human being's attending physician, the veterinarian who vaccinated the animal, a veterinarian other than the animal's veterinarian, and the agency that quarantined the animal. Finally, the order itself would have to state reasons for the decision to euthanize the animal, and this would help ensure that an officer or director would not euthanize an animal without following a procedure to justify the decision. Given that many health officials already interpret the "imminent danger" clause to allow such euthanizations, it is unlikely that the bill would significantly increase the number of euthanizations. Indeed, many supporters consider this a clarification of a power that health officials already have.

Response:

Whether or not the bill would merely clarify that a local health officer or local health medical director has the authority to order the euthanization of an animal, animal control officers should not be given this authority. They simply do not have sufficient training to be entrusted with public health decisions. Even though an animal control officer would be required to consult with others in making the decision, the bill would allow him or her to issue the order. At the very most, animal control officers should be allowed to execute a decision made by a local health officer or local health medical director. Some people believe that local officials should also be required to consult with a representative of the Department of Community Health before ordering an

animal's euthanization, to ensure that the state provides oversight.

Further, the bill does not do enough to minimize the threat that rabies poses to public health because it exempts livestock animals. Due to an increase in pet vaccinations and the development of stray animal programs, rabies is far more prevalent in wild animal species than it is in domesticated animals. Since livestock animals are far more likely than house pets to be exposed to bites from wild animals, they pose a more significant threat to human health than house pets, such as cats and dogs. If the aim of the legislation is to minimize the cost and pain involved in administering PEP in the event of a likely human exposure to rabies, it is not clear why the authorities should be allowed to euthanize house pets but not livestock animals.

Reply:

In practice, local communities and their officials will make the decision regarding who could order an animal's euthanization. In some communities, local health officers and local health medical directors who have a good rapport with the animal control officers will entrust the decision to them. In other communities, the local health medical director may decide that he or she wants to have the ultimate say in such decisions.

Against:

An animal's worth can be judged in both emotional and financial terms. Pet owners consider pets to be members of their families. While most people draw a clear distinction between the value of an animal family member and a human family member, policy makers should not ignore the strength of the human-animal bond. Pet owners who do not have any human family members are often very attached to their pets, and having an animal in the home can be essential to the owner's physical and emotional well-being. Moreover, to many owners, an animal represents a valuable piece of property, in addition to whatever emotional satisfaction the owner might derive from the animal. For instance, one dog owner testified that a dog may be worth anything from \$50 to \$3,000. Viewed in this light, the bill would permit the destruction of property without offering the owner ample opportunity to protest, which is tantamount to confiscation of property without due process.

Whether they emphasize the emotional or the financial worth of animals, some pet owners and advocates of animals have voiced concern that the authority could be abused. However thorny the case

of a child who receives an animal bite may be, the possibility of subjecting a human being to the pain involved in PEP should not be used to justify the actual termination of an animal's life, unless there is clear reason to do so. Concerned friends and family of an animal bite victim would likely exert considerable pressure on local health officers, local medical health directors, and animal control officers, regardless of whether euthanization was necessary.

POSITIONS:

The Michigan Association for Local Public Health supports the bill. (10-16-01)

The Michigan Veterinary Medical Association has no position on the bill. (10-16-01)

The Michigan Humane Society has no position on the bill. (10-16-01)

The Michigan Association of Animal Control Officers has no position on the bill. (10-16-01)

The Michigan Association for Pure Bred Dogs opposes the bill. (10-16-01)

The Michigan Hunting Dog Federation opposes the bill. (10-16-01)

Analyst: J. Caver

■This analysis was prepared by nonpartisan House staff for use by House members in their deliberations, and does not constitute an official statement of legislative intent.