

Rabies Scenarios: Living with Rabies in Your Community

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Since 1992, when raccoon strain rabies first entered Massachusetts, extensive resources have been directed towards controlling this disease. The following true scenarios illustrate the variety of ways that people are exposed to rabid and potentially rabid animals and also show the efforts required to prevent rabies from occurring in people and domestic animals.

These scenarios are drawn from situations reported to the Massachusetts Department of Public Health (MDPH), Division of Epidemiology and Immunization between 2002 and 2004. In some cases, the final outcomes are not known, because many decisions, such as the quarantine of animals and the administration of post-exposure prophylaxis (rabies shots) to people, are not made by MDPH.

Several different state agencies assist local authorities in rabies control. MDPH provides guidance on the evaluation and management of human exposures to known or suspect rabid animals, but the decision to receive post-exposure prophylaxis is made by the affected individual together with his or her healthcare provider. The State Laboratory Institute (SLI) at MDPH tests animals for rabies. The Massachusetts Department of Agricultural Resources, Division of Animal Health, Biosecurity and Dairy Services (DAH) provides guidance on rabies in domestic animals and makes decisions about the quarantine of domestic animals. The Massachusetts Department of Fisheries, Wildlife, and Environmental Law Enforcement, Division of Fisheries and Wildlife provides guidance on the control of wildlife, including those species that commonly carry rabies.

For more information about rabies control in Massachusetts see MDPH's website on rabies at <http://www.mass.gov/dph/rabies>

Keep Roadkill Out of the Classroom

Norfolk County, Raccoon

Reported to MDPH February 20, 2004

An elementary school's custodian found a dead raccoon in the school's freezer. It turned out that one of the school's science teachers had found the dead raccoon on the side of the road and placed it in the school's freezer for future dissection. Fortunately, there were no exposures to the raccoon so it did not need to be tested for rabies, and no one had to receive post-exposure prophylaxis. The school decided to develop a policy regarding appropriate and inappropriate subjects for biology class practice.

Even Cows Need Rabies Vaccines

Plymouth County, Cow

Reported to MDPH March 16, 2004

Two unvaccinated calves, approximately 12 weeks old, began developing neurological signs on Thursday March 4th. The signs began with shaking rear legs, which progressed to buckling, weakness, and an inability to stand. The calves were alert and eating for most of their illness. The calves died on March 11th and 12th, approximately seven days after onset of symptoms. The calf that died on March 12th tested positive for rabies on March 16th.

Numerous feral cats and one skunk had been seen around the barn but none appeared to be sick. The deceased calves had been housed with a third calf that was still healthy. This calf was quarantined for six months by the Division of Animal Health. There are approximately 130 adult cows in the herd, none of which had been vaccinated against rabies. No other animals were reported ill. It was recommended that the entire herd be vaccinated against rabies.

Nine people had come in contact with the ill calves. The farm owner, his wife, the veterinarian, three workers on the farm, and a family friend and her two children had to receive post-exposure prophylaxis.

House Young Animals Indoors- At Least Until They Can Be Vaccinated For Rabies
Norfolk County, Dog

Reported to MDPH September 15, 2003

A 14 week-old female Boxer puppy developed neurological symptoms on September 7th. The puppy's health deteriorated over the next few days, and she had to be put to sleep on September 12th. The puppy tested positive for rabies.

The investigation revealed that the puppy had been purchased from a private home. The litter was born on June 1st, and the mother and 7 puppies were caged outdoors. It was reported that there may have been a skunk in the cage with the positive puppy, the mother, and one other puppy on August 11th. The DAH recommended 6-months of strict confinement for the rest of the puppies in the litter.

In addition, during her illness, the puppy had been seen at three different animal hospitals. Staff from all three hospitals required post-exposure prophylaxis.

It was also discovered that on September 4th, a few days before she became ill, the puppy had been transported on the Massachusetts Steamship Authority ferry from Hyannis to Nantucket and back to Hyannis. The Steamship Authority provided MDPH with the passenger list for each of these trips. MDPH staff contacted each individual who had been onboard to determine whether they had had any contact with the puppy and to assess the risk of exposure. A press release was distributed to identify any other contacts. In total, at least 22 individuals received post-exposure prophylaxis.

Handle Dead Animals With Caution
Essex County, Coyote

Reported to MDPH March 17, 2003

A carpentry teacher picked up a dead coyote on the side of the road and gave a "skinning demonstration" to 13 students at a technical high school. Neither the teacher nor the students were wearing gloves. The students were mostly observers, but may have come in contact with saliva from the dead animal. The coyote was submitted to the MDPH Rabies Laboratory, but the specimen was not in good enough condition to be tested.

At the school, rumors were circulating about what was done to the coyote and where the animal had been in the school. This made it difficult to determine who had been exposed. A letter was sent to 420 parents and staff to notify them of the incident and to try to find all the people who had been exposed. The teacher was suspended by the school administration following the incident.

Doggy Doors Are Not Just For Dogs

Middlesex County, Raccoon

Reported to MDPH April 22, 2004

While the homeowners were away, a raccoon entered a house through a doggy door. A pet sitter arrived at the house to take care of two dogs and found blood all over the house. She went looking for the two dogs and found the smaller one dead in the bedroom. The raccoon was still in the room. The Animal Control Officer was called and came to the house, killed the raccoon and submitted it for testing. The second dog, which was up-to-date on its rabies vaccine, had also been bitten. This dog was given a rabies booster and was observed at a veterinary hospital until the owners returned. The pet sitter started post-exposure prophylaxis for indirect exposure. The raccoon tested positive for rabies.

Rabies Can Happen In Your Own Back Yard

Plymouth County, Dog

Reported to MDPH February 6, 2003

A 10-week old puppy was attacked by a skunk while going to the bathroom in the owner's yard only a few feet from their door. The puppy had no visible wounds. The family immediately comforted the puppy by holding and petting it. The skunk was not available for testing. Because the family may have had indirect exposure to the skunk through contact with saliva on the puppy, the five family members had to receive rabies post-exposure prophylaxis.

The puppy had not been vaccinated against rabies because he was too young. The options for the puppy were either to put him to sleep or to quarantine him for 6 months. The family decided to quarantine the puppy in their house. The puppy was only allowed to have limited contact with adult family members and could only go outside to go to the bathroom. Unfortunately, six weeks later, the puppy developed neurological signs suggestive of rabies. He was brought to a veterinarian who put him to sleep and submitted his head for rabies testing. The puppy tested positive for rabies.

They Call It Wildlife For A Reason: Keep Your Distance!

Middlesex County, Fox

Reported to MDPH June 17, 2003

A fox and her litter of puppies were living underneath the porch of a resident. A neighbor tried to take a picture of the fox and her litter and was bitten by the mother fox. The fox was submitted for rabies testing and tested positive. The neighbor that was bitten began post-exposure prophylaxis on the day that she was bitten. A pet cat was also exposed to the

positive fox. The cat was up-to-date on rabies vaccinations. The pet cat received a booster dose and was quarantined for 45 days. The town's Animal Control Officer was notified about the positive fox, and the fox puppies living underneath the porch were put to sleep.

Even Cute Little Kittens Can Carry Rabies- Be Careful With Feral* Cats
Essex County, MA, Cat

Reported to MDPH July 18th, 2003

A kitten was living in a barn with approximately 15 other feral cats. The owner of the barn wanted to get rid of the cats, so most of them were taken in by "foster families" until a more permanent home could be found for them. The kitten was cared for by one foster person, Foster Family A, from the beginning of May until the end of June.

A new family, Foster Family B, adopted the kitten on July 1st. The kitten was then injured from a fall out of a window, and the adopting family brought it to the vet's office to be evaluated and treated. The vet recommended that the kitten be put to sleep because its injuries were too severe. Because the kitten had recently bitten its owner, it was submitted for rabies testing. The kitten tested positive for rabies.

Foster Family A had to receive post-exposure prophylaxis. In addition, in Foster Family B, two family members had been in close contact with the kitten and had to receive post-exposure prophylaxis. Foster Family B also had two other cats from the same barn. These two cats had been in close contact with the positive kitten. The family was encouraged either to have these two other cats put to sleep and submitted for testing or to quarantine them for six months.

*unowned stray cats