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Kansas

Susan Mosier, MD, Secretary | Department of Health & Environment | Sam Brownback, Governor

MEMORANDUM

DATE: 01 March 2016

TO: Local health officers, public health administrators, medical consultants, law enforcement, and animal control officers

FROM: D. Charles Hunt, MPH
State Epidemiologist and Director
Bureau of Epidemiology and Public Health Informatics

SUBJECT: New guidelines for management of animals that have been exposed to rabies

Background

Rabies is a fatal viral zoonosis (disease passed from animals to people) and a serious public health problem[1]. The rabies virus is usually transmitted from animal to animal, or animal to people, through bites. The incubation period is highly variable, but is usually 3 – 12 weeks. Animal control programs that emphasize vaccination of dogs and cats, removal of stray animals, animal population control, and enforcement of licensure programs are essential to reduce the risk of rabies exposures to humans[2,3]. These programs have reduced cases of rabies among dogs in the United States from 6,949 cases in 1947 to 89 cases in 2013[4]. The last human death from rabies in Kansas was in 1968.

The National Association of State Public Health Veterinarians author the Compendium of Animal Rabies Prevention and Control. This document details recommendations for animal rabies prevention and control programs throughout the United States[5]. The Kansas Department of Health and Environment used the recommendations in this Compendium to develop the Kansas Administration Regulation 28-1-13, on Rabies Control.

The 2016 Compendium of Animal Rabies Prevention and Control, which will be published on 01 March 2016, will include substantial changes, including: changes to the management of dogs and cats exposed to rabies that are either unvaccinated or overdue for booster vaccination, and reduction of the recommended 6-month quarantine period[5]. In addition dogs, cats, and ferrets without documentation of at least one rabies vaccination can possibly be tested for adequate antibody response to a booster vaccination through prospective serological monitoring[5]. This procedure must be approved by public health officials before the booster vaccination is administered at the owner's expense. The Kansas Department of Health and Environment's Infectious Disease Epidemiology and Response Section should be consulted for the specific criteria and protocol.

Quarantine of Animals Exposed to Rabies

The current K.A.R. 28-1-13 requires dogs, cats, or ferrets that have been exposed to rabies and are not immunized against rabies, to be quarantined for 6 months. This includes animals that have been vaccinated for

rabies in the past but are overdue for a rabies booster. The local health officer, or their designee, has the authority to determine the location of the quarantine: in the residence of the owner, veterinary hospital, or a licensed animal pound or shelter. The owner of the animal is responsible for payment of the boarding fee the animal incurs during its stay.

In 2015, researchers at the Kansas State University Rabies Laboratory published data on a study in which they compared the antibody response of dogs and cats that were exposed to rabies and overdue for their rabies vaccination. The results indicated that dogs with an out-of-date rabies vaccination were not inferior in their antibody response following booster rabies vaccination, compared to dogs with current vaccination status[6]. These findings support the recommendation of immediate rabies vaccination booster and observation of these dogs for 45 days[6].

In addition, KDHE evaluated the outcome of animals exposed to rabies. Animal rabies cases reported to KDHE from January 1, 2012 – December 11, 2015 were evaluated to identify exposed animal contacts. There were 219 animals exposed to rabies; 68 (31%) were current on rabies vaccination, 32 (15%) were out-of-date, 108 (49%) were unvaccinated, and 11 (5%) had unknown vaccination status. Of the 32 out-of-date contacts, 16 (50%) were euthanized and 16 (50%) were quarantined (14 survived, 1 exhibited neurological signs and tested negative for rabies, and 1 was lost to follow-up)[7].

Legal Issues

The 2016 Compendium of Animal Rabies Prevention and Control is based on the most current scientific evidence available. However, the existing Kansas Administrative Regulation 28-1-13 will conflict substantially with the updated recommendations in the new Compendium.

K.S.A 65-101 and K.S.A. 65-202 provide broad authority for the Secretary of the Kansas Department of Health and Environment (KDHE) and local health officers, respectively, to prevent and control infectious diseases.

K.A.R. 28-1-13 is being updated to match the recommendations of the 2016 Compendium of Animal Rabies Prevention and Control; however, the process to adopt the updated regulation will take several months. Therefore, KDHE is issuing these guidelines as an interim measure under the general statutory authority to prevent and control rabies based on the updated Compendium.

Updated Guidance for Management of Animals Exposed to Rabies

KDHE recommends that local health officers adopt the new recommendations regarding quarantine of animals exposed to rabies in the 2016 Compendium of Animal Rabies Prevention and Control. These include:

(1) Dogs, cats, and ferrets that have appropriate documentation of current rabies vaccination with a USDA-licensed vaccine approved for that species should immediately receive veterinary medical care for assessment, wound cleansing, and booster vaccination. The animal should be kept under the owner's control and observed for 45 days.

(2) Dogs, cats, and ferrets that have never been vaccinated against rabies should be euthanized immediately. There are currently no United States Department of Agriculture (USDA)-licensed biologics for postexposure prophylaxis of previously unvaccinated domestic animals, and there is evidence that the

use of vaccine alone will not reliably prevent the disease in these animals. If the owner is unwilling to have the animal euthanized, the animal should be placed in strict quarantine for 4 months (for dogs and cats) or 6 months (for ferrets). Strict quarantine in this context refers to confinement in an enclosure that precludes direct contact with people and other animals. A rabies vaccine should be administered at the time of entry into quarantine to bring the animal up to current rabies vaccination status. Administration of vaccine should be done as soon as possible. It is recommended that the period from exposure to vaccination not exceed 96 hours. If vaccination is delayed, public health officials may consider increasing the quarantine period for dogs and cats from 4 to 6 months, taking into consideration factors such as the severity of exposure, the length of delay in vaccination, current health status, and local rabies epidemiology.

(3) Dogs and cats that are overdue for a booster vaccination and that have appropriate documentation of having received a USDA-licensed rabies vaccine approved for that species at least once previously should immediately receive veterinary medical care for assessment, wound cleansing, and booster vaccination. The animal should be kept under the owner's control and observed for 45 days. If booster vaccination is delayed, public health officials may consider increasing the observation period for the animal, taking into consideration factors such as the severity of exposure, the length of delay in booster vaccination, current health status, and local rabies epidemiology.

(4) Dogs and cats that are overdue for a booster vaccination – but without appropriate documentation of having received a USDA-licensed rabies vaccine approved for that species at least once previously – should immediately receive veterinary medical care for assessment, wound cleansing, and consultation with KDHE or local public health authorities. Two options are recommended for managing these animals:

   a. The animal can be treated as unvaccinated, immediately given a booster vaccination and placed in strict quarantine for 4 to 6 months.
   b. Alternatively, prior to booster vaccination, the attending veterinarian must request guidance from KDHE or the local public health authorities in the possible use of prospective serologic monitoring. Such monitoring would entail collecting paired blood specimens to document prior vaccination by providing evidence of an anamnestic response to booster vaccination. If an adequate anamnestic response is documented, the animal can be considered to be overdue for booster vaccination and observed for 45 days. If there is inadequate evidence of an anamnestic response, the animal is considered to have never been vaccinated and should be placed in strict quarantine for 4 to 6 months.

(5) Ferrets that are overdue for a booster vaccination should be evaluated and managed on a case-by-case basis by consulting with KDHE or local public health authorities. Factors to be considered include the severity of exposure, time elapsed since last vaccination, number of previous vaccinations, current health status, and local rabies epidemiology.

(6) Livestock and horses that have appropriate documentation of current rabies vaccination with a USDA-licensed vaccine approved for that species should be given a booster vaccination immediately and observed for 45 days.

(7) Livestock and horses that are overdue for a booster vaccination should be evaluated and managed on a case-by-case basis by consulting with KDHE or local public health authorities. Factors to be considered include the severity of exposure, time elapsed since last vaccination, number of previous vaccinations, current health status, and local rabies epidemiology.

(8) Livestock and horses that have never been vaccinated should be euthanized immediately or placed in strict quarantine for 6 months. [Note: This recommendation is more stringent than the recommendation in the 2016 Compendium of Animal Rabies Prevention and Control, which states that these animals should be "...confined and observed on a case-by-case basis for 6 months."]

(9) Other animals exposed to rabies should be euthanized immediately. Animals maintained in USDA-licensed research facilities of accredited zoological parks should be evaluated and managed on a case-by-case basis by consulting with KDHE or local public health authorities.

Recommendation for Animals Currently in Quarantine

KDHE recommends the following for any dog or cat currently in quarantine:

(1) If the dog or cat has had at least one documented rabies vaccination with a USDA-licensed vaccine approved for that species prior to exposure, and the animal received a rabies vaccine booster within 96 hours of the exposure, the animal may be released from quarantine. The animal should be observed for signs of rabies for 45 days post-exposure.

(2) If the dog or cat does not have documentation of a rabies vaccination with a USDA-licensed vaccine approved for that species prior to exposure, and the animal received a rabies vaccine booster within 96 hours after the exposure they should remain in quarantine for 4 months. If vaccination was delayed, public health officials may consider maintaining the quarantine period for dogs and cats from at 6 months, taking into consideration factors such as the severity of exposure, the length of delay in vaccination, current health status, and local rabies epidemiology.

(3) Ferrets that are currently in quarantine should be evaluated on a case-by-case basis by consulting with KDHE or local public health authorities. Factors to be considered include the severity of exposure, time elapsed since last vaccination, number of previous vaccinations, current health status, and local rabies epidemiology.

The Infectious Disease Epidemiology and Response section will be scheduling webinars to provide an overview and discussion of the updated recommendations. In the meantime, please feel free to contact our office with any questions at 1-877-427-7317 or EpiHotline@kdheks.gov.

References

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