

Understanding Rabies Quarantines for Veterinary Clinics

There are three different types of quarantines: (1) “Quarantines” which are imposed after a domestic animal bites a human (2) Quarantines which are imposed after a domestic animal is exposed (bitten, scratched, or other) to a rabid or suspected rabid animal; and (3) Quarantines which are imposed for when a domestic animal is showing clinical signs of active rabies infection and is suspected of being rabid. This document is intended to clarify some of the differences. ***Please note that this document is based on the PA Rabies Act, the Rabies General Quarantine Order (GQO) of October 6, 2018, and the PA Health and Safety Code Title 28 Chapter 27, Communicable and Noncommunicable Diseases, which may differ from the recommendations listed in the “Rabies Compendium”.*** When the Compendium and the Commonwealth Laws, GQO or regulations do not agree, the Laws, GQO and regulations supersede the Rabies Compendium. Additionally, if you are in an area with municipal rabies ordinances, you must comply with the local requirements.

A key concept in understanding rabies quarantines relates to whether the domestic animal is (1) the biter or (2) the bitten or (3) showing clinical signs of rabies. See appropriate numbered section for the details of how each situation should be handled.

1. THE BITER

From the Human Health and Safety Code (which is enforced by the Pennsylvania Department of Health). Department here refers to the “Health Department”:

Title 28 § 27.162. Special requirements for animal bites.

“... (1) When an animal bites or otherwise potentially exposes a human to rabies, the Department or local health authority shall, after the case of an animal bite is reported, determine whether the animal shall be immediately destroyed and its head submitted to one of the State or county diagnostic laboratories for a rabies examination or whether some other action shall be pursued.

(2) Notwithstanding paragraph (1), when a healthy dog or cat bites or otherwise potentially exposes a human to rabies, the dog or cat shall be quarantined in a place and manner approved by the Department or the local health officer for 10 days after the date of the bite, unless the Department or local health officer directs otherwise.

(3) If a quarantine is imposed, the Department or the local health officer may order the owner or custodian of a biting animal to have the animal examined for symptoms of rabies during the quarantine period by a veterinarian licensed by the State Board of Veterinary Medicine. The cost of the examinations and other associated costs shall be borne by the owner or custodian of the biting animal.”

One might ask: “What is the rationale for the 10-day period of confinement for dogs or cats?” This is because if the biter was a dog or cat and it had rabies virus in its saliva when it did the biting, research states that the dog or cat will most likely die or show obvious clinical signs of rabies within 10 days of the bite (rare exceptions may exist).

If biter is showing clinical signs consistent with rabies, see Number 3 below. Contact your PDA BAHDS regional office as well as the Health Department. Different rules now apply!

2. THE BITTEN ANIMAL (EXPOSED):

The options provided by the Rabies GQO of October 6, 2018 for the management of domestic animals exposed to a confirmed or suspected rabid animal include (1) euthanasia, or (2) *if currently legally vaccinated against rabies* owner observation at home for 45 days, or (3) *if unvaccinated for rabies (including animals without proof of prior rabies vaccination, off label vaccines, and animals which received their first vaccination within the 28 days prior to exposure)*, PDA administered home quarantine for a minimum of 120 days

Domestic animals with expired rabies vaccinations will be evaluated on an individual case basis by PDA Regional staff, who will make a risk based decision as to whether a 120-day quarantine is required or if a 45-day period of observation period is acceptable. (Please note: There are NO ten-day quarantines for animals bitten by a confirmed or suspected rabid animal.)

The quarantine or observation period imposed on an exposed domestic animal reflects the period it might take for the bitten (or otherwise exposed) animal to develop clinical rabies. The incubation period for rabies varies from about two weeks up to several months. However, there are rare reports of both shorter and longer incubation periods. During a quarantine or observation period, the **exposed** animal is confined and observed to see if abnormal behavior suggestive of active rabies infection develops. Clinical signs may suggest rabies, but the only definitive diagnosis is made in the laboratory.

The bitten animal is not infectious unless the rabies virus successfully travels from the bite site to the animal's brain and salivary glands at which time they may have virus in their saliva. During the time the virus is traveling from the bite site, and before the virus has reached the brain and salivary glands, the animal does not have virus in its saliva and is therefore not able to transmit rabies.

In summary, the quarantine or observation period is based on vaccination status:

- a. **Animals current on rabies vaccination:** For currently vaccinated domestic animals exposed to a confirmed or suspected rabid animal, PDA recommends observation by the owner at home for 45 days with immediate reporting of any suspicion of rabies to the Department. Note: It is common practice to vaccinate any domestic animal that has been exposed to rabies, even if current on rabies vaccination*. However, this is not required by law for dogs or cats that are up to date on rabies vaccine. **It is up to the veterinary clinician to determine the best post-exposure protocol for each case.**
- b. **Unvaccinated Animals:** For unvaccinated domestic animals exposed to a confirmed or suspected rabid animal, euthanasia might be considered as the safest option. PDA does not mandate euthanasia for exposed unvaccinated domestic animals, but does mandate a formal quarantine for a minimum of 120 days, usually on the owner's premises. A risk assessment may help determine whether the owner elects to euthanize their animal(s) vs. have it quarantined by PDA. Note: protocols exist for vaccinating post-exposure. See Wilson PJ, Oertli EH, Hunt PR, Sidwa TJ. Evaluation of a post-exposure rabies prophylaxis protocol for domestic animals in Texas: 2000-2009. J Am Vet Med Assoc 2010;237: 1395-1401. This article describes one protocol option for exposed naïve animals.

*Based on the more recent publication: Moore MC et.al. Comparison of anamnestic responses to rabies vaccination in dogs and cats with current and out-of-date vaccination status. J Am Vet Med Assoc 2015;246: 205-211, current and/or expired vaccines appear to benefit from one immediate booster. **It is up to the veterinary clinician to determine the best post-exposure protocol for each case.**

- c. **Animals with expired vaccination status:** For expired vaccines exposed to a confirmed or suspected rabid animal, PDA staff will assess whether the animal is low risk and can be observed at home for 45 days by the owner or if the animal is higher risk and will be quarantined at home by PDA for a minimum of 120 days. Previous vaccination history, post exposure vaccination, and severity of exposure will be some of the factors taken into consideration. Practitioners should consider previous vaccination history when determining appropriate post-exposure vaccination protocol.

3. ANIMALS SHOWING CLINICAL SIGNS OF RABIES:

From the Rabies GQO of October 6, 2018:

- “a. General Restrictions. A dog, cat or other domestic animal suspected of having rabies may not be released from quarantine until suspicion of rabies is dispelled or until the animal has died or has been euthanized. No tissues or secretions from that animal may be sold, transported, or used for human or animal consumption unless that animal was negative on an official rabies test.
- b. Required Testing of Dead Quarantined Animals. A dog, cat, or other domestic animal that dies or is euthanized while quarantined for suspicion of having rabies that has exposed a human, dog, cat or another domestic animal shall be subjected to an official rabies test, and disposed of in accordance with Sections 2351 – 2357 of the Act (relating to disposal of dead domestic animals and animal waste).”

- **Report any domestic animal showing clinical signs of rabies to your PDA Regional office.**
 - Domestic animals suspected of having rabies that bite or otherwise expose people must also be discussed with the **Health Department** to determine the required course of action. All human treatment/biter management recommendations will be made by human health professionals only.
 - If the domestic animal is showing clinical signs consistent with rabies *and did not bite a human*, the law mandates quarantine. It is kept quarantined until the suspicion of rabies has been dispelled or the animal has died or been euthanized. The law does **not** mandate euthanasia. If the domestic animal showing signs of rabies has exposed another animal and dies within the 10 subsequent days, it must be tested for rabies.
 - Although in some cases it is a legal option, quarantining a rabies suspect poses potentially significant risks to people and other domestic animals and should not be taken lightly. Appropriate risk mitigation should be implemented if a rabies suspect will be quarantined. Euthanasia is the safest option for rabies suspects.
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PLEASE NOTE: Regardless of the type of rabies quarantine, it may be prudent to submit an animal that has died under quarantine to an official laboratory for rabies testing. Remember that when the animal was under quarantine due to clinical signs consistent with rabies, if a person or domestic animal is exposed, testing of the deceased animal for rabies virus is required. For questions related to human exposures, contact the Health Department. For questions related to a domestic animal's exposure, contact PDA. Please note: PDA may not answer questions related to human exposure.

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Rabies Testing: Rabies testing is a free service offered to the public, although there may be costs incurred in shipping the sample to the lab. If the specimen is to be sent to the laboratory from a PDA regional office, call your regional office first as this service is not always available. PDA Regional office can no longer submit human exposure samples to the lab. Please refer to the PDA lab submission handout for more information.

Questions?

- Contact your regional PA Department of Agriculture office for questions about domestic animals at www.agriculture.pa.gov/regional-offices/pages/default.aspx
- Contact your regional PA Game Commission office for questions about wildlife at www.pgc.pa.gov/INFORMATIONRESOURCES/.../default.aspx
- Contact the PA Department of Health for questions concerning people at 1-877-PAHEALTH or go to www.health.pa.gov and select “About Us” then “State Health Centers” for local health department office contact information