

# New Rabies Post-exposure Management Guidance for Dogs and Cats.

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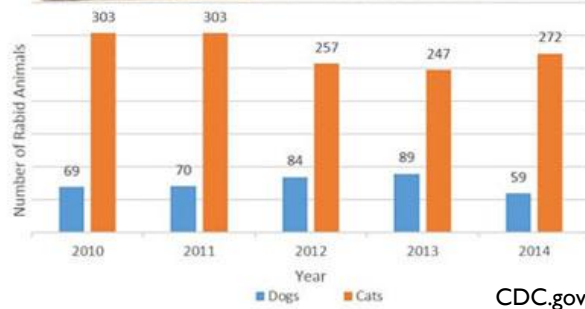
## Introduction

The North Carolina Rabies Laws (G.S. 130A-184 – 204) are the basis for rabies prevention and control measures in North Carolina.<sup>1</sup> Rabies post-exposure management control measures for dogs and cats have remained essentially unchanged since the rabies laws were first codified in 1983. Under G.S. 130A-197 rabies-exposed dogs and cats fall into two post-exposure management categories: currently vaccinated or not. If the animal is not current at the time of the exposure, then it is subject to euthanasia or, if the owner is unwilling to euthanize and financially able, the animal could be placed in up to a six month quarantine.

Control measures and conditions are always at the discretion of the local health director. Recently, new national guidance was developed with more lenient control measures by the Rabies Compendium Committee of the National Association of State Public Health Veterinarians (NASPHV). This article discusses the rationale for the adoption of the new national control measures and the legal options available to local health directors. The new control measures are described in detail with some special considerations.

## Rabies Vaccination Required

G.S. 130A-185, requires that every owner of a domestic dog, cat or ferret (four months and older) maintain the animal's rabies vaccination status up-to-date throughout the animal's entire lifetime. There are no legal waivers or exemptions. Owners should retain the original copy of the rabies vaccination certificate provided by the legally authorized vaccinator (G.S. 130A-189) at the time of vaccination, as legal evidence of the animal's vaccination status.



## Compendium of Animal Rabies Prevention and Control

On March 1, 2016 a new version of the NASPHV Compendium of Animal Rabies Prevention and Control was published. The NASPHV Rabies Com-

pendium is the definitive guidance document for domestic animal rabies prevention and control in the U.S. The Compendium is used by CDC for determining recommendations for animals potentially exposed to rabies and rabies vaccination of animals; and is the primary source of reference for the North Carolina Rabies statutes, administrative code and the North Carolina Rabies Control Manual.<sup>2,3</sup>

The new Compendium makes changes to post-exposure management recommendations for dogs and cats (with some new recommendations for ferrets) that are, for the most part, less restrictive than the existing standard of practice in North Carolina under G.S. 130A-197.<sup>1,2</sup> To ensure that North Carolina rabies control laws remain consistent with current national recommendations, NC DPH recommends that local boards of health adopt the model Board of Health rule (Figure 1, page 6).

## The 2016 Rabies Compendium Changes

The 2016 Rabies Compendium's new control measures for post-exposure management of dogs and cats are categorized by vaccination status as outlined below and in Table 1.<sup>2</sup> In each of the four vaccination categories below the exposed animal shall receive immediate veterinary care and a rabies vaccination with 96 hours of exposure.<sup>2</sup> The attending veterinarian and owner must notify the local health department immediately after the exposure or at the initial veterinary visit. The local health director shall determine the appropriate control measure to implement based on the animal's rabies vaccination status, timeliness of post-exposure vaccination with consideration of health assessments by the attending veterinarian.<sup>2</sup>

1. **Currently Vaccinated** - (a valid rabies vaccination certificate indicates that the dog, cat or ferret is current, vaccinated with a USDA licensed rabies vaccine at least 28 days prior to the exposure if the animal has received only one prior vaccine in its lifetime). Dogs, cats and ferrets should immediately receive veterinary care and be administered a booster rabies vaccine within 96 hours after the exposure; and be kept under the owner's observation\* for 45 days.

2. **Unvaccinated** (never been vaccinated against rabies) - Unvaccinated dogs, cats and ferrets should be euthanized. If the owner is unwilling to euthanize, the animal should immediately receive veterinary care and be administered a rabies vaccine within 96 hours after the exposure and placed in strict quarantine. The strict quarantine period for dogs and cats has been reduced from six to four months. The strict quarantine period for ferrets remains six months due to a lack of data to support a change. Strict quarantine refers to confinement in an enclosure that precludes direct contact with people and other animals.<sup>2</sup>

3. **Overdue with Appropriate Documentation** (a valid rabies vaccination certificate or official veterinary record indicates the dog or cat was vaccinated with a USDA licensed vaccine at least once in its lifetime) - dogs, cats and ferrets should immediately receive veterinary care and be administered a booster rabies vaccine within 96 hours of exposure. Dogs and cats should be kept under the owner's observation\* for 45 days. Previously vaccinated dogs and cats will mount a robust anamnestic response to a booster rabies vaccination despite being out-of-date.<sup>5</sup> Ferrets are treated as unvaccinated (see vaccination category 2) due to a lack of data to support a change.

4. **Overdue with NO Documentation** (no valid rabies vaccination certificate or official veterinary records of a prior rabies vaccination) – dogs, cats and ferrets should immediately receive veterinary care. They can be treated as unvaccinated and receive a rabies vaccination within 96 hours of exposure followed by a four month (dogs and cats) or six month (ferrets) strict quarantine. For dogs and cats, if the owner or guardian wants to avoid euthanasia or strict quarantine, the veterinarian may, in consultation with the local health director and the Communicable Disease Branch, use a prospective serologic monitoring (PSM) protocol to demonstrate whether the animal mounts an adequate immunologic response to a rabies vaccination. The PSM protocol schedule for vaccination and blood draws must be strictly adhered to. Ferrets are treated as unvaccinated (category 2) due to a lack of data to support a change.

\*We recommend that during the 45 day observation period that the exposed animal be under the owner's strict supervision and control (leash walk, fenced yard, no travel or boarding unless approved by the LHD, no outings at doggie park or other parks, etc.). There should be no contact with animals or people other than the caretaker(s) until the local health director has released the animal from the 45 day observation period.

### Special Considerations

The 2016 Compendium provides examples of situations and factors that may need to be evaluated on a case-by-case basis by public health officials and require implementation of more extended quarantine or observation periods. Furthermore, for exposed dogs and cats that are outdated with appropriate documentation (category 3) the strict quar-

antine period has been significantly reduced from 6 months to a 45 day observation period at the owner's home.<sup>5</sup> If there is a delay in vaccination of an animal beyond 96 hours of the exposure, the Compendium advises public health officials to consider increasing the quarantine period from 4 to 6 months and extending the 45 day observation period taking into consideration the following factors: severity of exposure, the length of delay in vaccination, epidemiology, number of previous vaccinations and animal health status.

Adoption of the model Local Board of Health Rule will provide local health directors with legal protection; the full force and effect of law (Figure 1). If managed and monitored carefully by local health departments, the new control measures will continue to maintain the safety of public health in North Carolina, while providing owners with more reasonable options for rabies-exposed dogs and cats, depending on the circumstance.

### References

1. North Carolina General Assembly. North Carolina General Statutes. Chapter 130A. Available at <http://www.ncga.state.nc.us/gascripts/statutes/statutelookup.pl?statute=130A>. August 10, 2016.
2. National Association of State Public Health Veterinarians Rabies Compendium Committee 2016. Compendium of Animal Rabies Prevention and Control, 2016. Available at <http://www.nasphv.org/Documents/NASPHVRabiesCompendium.pdf>. July 21, 2016.
3. N.C. Division of Public Health website. North Carolina Rabies Public Health Program Manual. Available at: <http://epi.publichealth.nc.gov/cd/lhds/manuals/rabies/human.html>. April 28, 2016.
4. CDC. Rabies. Available at <http://www.cdc.gov/rabies/index.html>. August 12, 2016.
5. Moore MC, Davis RD, Kang Q, 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.

**Figure 1. Rule for Post-exposure Management of Dogs and Cats  
Recommended by the NC Division of Public Health**

This model rule for rabies post-exposure management of dogs and cats implements and particularizes the authority given to the local health director in G.S. 130A-197 to effectively and efficiently protect the public's health utilizing the most current science. Accordingly, the \_\_\_\_\_ Board of Health adopts the recommendations and guidelines for rabies post-exposure management of dogs and cats specified by the National Association of State Public Health Veterinarians in the 2016 edition of the Compendium of Animal Rabies Prevention and Control (Part I. Rabies Prevention and Control B. Prevention and control methods in domestic and confined animals. 5. Post-exposure Management). These provisions of the Compendium shall be the required control measures pursuant to G.S. 130A-197.

**Table 1. 2016 Rabies Compendium Changes for Post-exposure Management of Dogs and Cats by Vaccination Category Status: A Comparison to § 130A-197 and Estimated Fiscal Impact to Pet Owners**

Rabies Vaccination Status of Dog or Cat	Current G.S. 130A-197 Control measures	2016 Compendium Control measures	2016 Compendium Financial Impact
<b>1. <u>Currently Vaccinated</u></b>	Provide booster dose of rabies vaccine within five days of exposure (\$25.00)	Immediate veterinary care with rabies booster dose within 96 hours of exposure (\$25.00+). Owner observation 45 days.	Equal to existing standard
<b>2. <u>Unvaccinated</u> (Has never been vaccinated against rabies)</b>	A.) Euthanasia (\$150.00) or B.) Immediate vaccination against rabies and place in six month quarantine (\$25.00 + \$3600.00)	A.) Euthanasia (\$150.00) or B.) Immediate veterinary care with rabies vaccination within 96 hours of exposure and place in four month quarantine (\$25.00+) + \$2400.00)	A.) Equal to existing standard B.) \$1200.00 less expensive
<b>3. <u>Overdue with Appropriate Documentation</u> of prior rabies vaccination (at least one prior valid rabies vaccination certificate)</b>	A.) Euthanasia (\$150.00), or B.) Immediate rabies vaccination and place in six month quarantine (\$25.00 + \$3600.00)	A.) NA B.) Immediate veterinary care with rabies booster dose within 96 hours of exposure, keep under owner observation for 45 days (\$25.00+)	A.) ~ \$125.00 less expensive than existing standard (does not include emotional cost of pet loss). B.) \$3600.00 less expensive
<b>4. <u>Overdue with NO Documentation</u> of prior rabies vaccination</b>	A.) Euthanasia (\$150.00), or B.) Immediate vaccination against rabies and place in six month quarantine (\$25.00 + \$3600.00)	A.) Euthanasia (\$150.00), or B.) Immediate veterinary care with rabies vaccination within 96 hours of exposure and place in four month quarantine (\$25.00+) + \$2400.00), or C.) Immediate veterinary care and Prospective serologic monitoring (\$134.00 + \$420.00 strict quarantine) IF evidence of prior vaccination then keep under owner observation for 45 days IF NO evidence of prior vaccination then manage as unvaccinated (category 2. euthanize or 4 month quarantine)	A.) Equal to existing standard B.) \$1200.00 less expensive C.) \$554.00 more expensive includes additional cost for strict quarantine until lab evidence finalized. Note this may obviate the need for either A or B above and, while a new expense, is considerably less expensive than either A or B above

Note: All costs are approximate. Table is not meant to be all inclusive of all recommendations and costs but addresses the common situations with the most fiscal impact.  
\*Consult Communicable Disease Branch (919-733-3419) for specific guidance. Recommendations may be subject to change.