

# Good News on the Horizon for Rabies Vaccines?

There may be encouraging news for pet owners that could save them money and their pets from unnecessary vaccines. If you struggle with current laws regarding rabies shots, you'll welcome this new development.

**Analysis by Dr. Karen Shaw Becker**

## STORY AT-A-GLANCE

- Kansas State University's Veterinary Diagnostic Laboratory has modified the rabies antibody titer test, and if adopted, KSU says it will "cost pet owners less money and may help reduce the number of yearly vaccines for pets"
- The American Holistic Veterinary Medical Association (AHVMA) is working with the KSU Rabies Lab on the titer test project, however, until legal changes occur, animal guardians and veterinarians must comply with existing legal statutes

**Editor's Note: This article is a reprint. It was originally published November 05, 2015.**

I'm very happy to be able to share a bit more encouraging news regarding rabies vaccinations for dogs and cats.

Very recently I reported the results of a study performed by Kansas State University (KSU) that compared "anamnestic" antibody responses of dogs and cats with current vs. out-of-date rabies vaccinations. The animals in the study were given rabies boosters ("booster" is simply another name for a re-vaccination), and then given antibody titer tests to see if the group with current vaccinations had higher titers than the group with out-of-date vaccinations. The study authors' conclusion:

*"Results indicated that dogs with out-of-date vaccination status were not inferior in their antibody response following booster rabies vaccination, compared with dogs with current vaccination status.*

*Findings supported immediate booster vaccination followed by observation for 45 days of dogs and cats with an out-of-date vaccination status that are exposed to rabies, as is the current practice for dogs and cats with current vaccination status."<sup>1</sup>*

What this shows is there is no health-related reason to mandate long-term quarantine or euthanasia for dogs and cats with expired rabies vaccinations that are exposed to a rabid animal.

Michael C. Moore, lead study author, hopes the study findings help clarify and shape the current guidelines for pets that are exposed to the rabies virus:

*"If you relate this to human health, humans are primed with an initial vaccination series and then have neutralizing antibodies checked from time to time," he said.*

*'If those antibodies fall below a certain level, we're given a booster. While the vaccines are licensed for a certain number of years, the immune system doesn't sync to a date on the calendar and shut down because it reached that particular date.'*"

These study results were published in mid-January 2015, and in August, KSU announced that scientists at the university's Veterinary Diagnostic Laboratory (KSVDL) had "modified a test that measures an animal's immune response to the rabies virus, a change that will cost pet owners less money and may help reduce the number of yearly vaccines for pets."<sup>2</sup>

What they're talking about is a rabies titer test. It's important to note that state and local laws mandating one or three-year rabies re-vaccinations for dogs and cats are based on zero scientific evidence the "boosters" are actually necessary.

## **The AHVMA Supports the Work of the KSU Rabies Lab**

A few days after seeing the mid-August KSU news release, I received a note from my good friend and veterinary vaccine authority, Dr. Jean Dodds. Dr. Dodds and I are fellow members of the **American Holistic Veterinary Medical Association** (AHVMA), and she is Chairperson of the AHVMA Communications Committee.

Dr. Dodds forwarded an AHVMA press release titled "Changes Sought to Rabies Vaccination Laws Based on Scientific Research." As it turns out, the AHVMA has been working in support of Kansas State University on the rabies antibody titer test project. This makes all kinds of sense, since it is the holistic and integrative veterinary community that has been leading the charge against over-vaccinating pets. Here is Dr. Dodds' press release in its entirety:

*"The American Holistic Veterinary Medical Association (AHVMA) became the first national veterinary organization to support efforts by Kansas State Veterinary Diagnostic Laboratory (KSVDL) to improve rabies testing with a modified screening test to determine if veterinary patients need to receive rabies booster vaccinations to maintain protective immunity. The AHVMA and its members have long expressed concern over animal vaccination practices. While vaccinations provide important protection against a wide number of serious diseases, they can also cause adverse effects ranging from minor discomfort, autoimmune disorders, and even death on rare occasions.*

*Veterinarians can offer serum antibody titers, a form of blood testing which is helpful in predicting the need for revaccination. This practice is helpful to reduce the potential dangers to pets from receiving unneeded vaccinations. Currently, laws regulating rabies vaccination are set locally and statewide and may not allow for the use of blood antibody testing to avoid mandatory rabies revaccination. To comply with the law, veterinarians and pet owners vaccinate at prescribed intervals regardless of existing immunity. This practice was developed to protect public health in a time when vaccine titers were not offered by veterinarians, but it increases the risk of vaccine adverse-events for our dog and cat patients.*

*Recent research at the Rabies Challenge Fund suggests immunity from rabies vaccination lasts much longer than the usual one to three year interval required by current laws. This study added significant evidence that we may be over vaccinating for rabies in our pet population. Public health officials have expressed concern that reducing vaccination for rabies could increase the incidence of this deadly disease. To date, legislatures and public health agencies have resisted changing rabies vaccination laws to reflect current knowledge about rabies vaccine duration of protection.*

*Rabies vaccinations can be associated with a number of significant, well-documented adverse effects. These include localized swelling and pain, fever, chronic hair loss, ulcerative dermatitis, encephalitis, vasculitis, seizures, vaccine-related cancer, and anaphylactic shock. Pet guardians whose animals have suffered such illness are very concerned about revaccination. If they fail to keep the vaccination current based upon current legal requirements, they may be penalized in several ways depending upon existing legal statutes.*

*KSVDL recently announced the modification of the established rabies antibody test (Rapid Fluorescent Focus Inhibition Test) to rapidly screen immunity to rabies virus. Once properly vaccinated, such testing can be used to identify if the individual has an antibody level indicative of protection from rabies. If an animal undergoes testing and is found to have adequate protection, the AHVMA supports reform of public health laws that require automatic revaccination. Such booster vaccinations may not be medically necessary. This new testing procedure allows screening for continued rabies vaccine response. This allows veterinarians and pet guardians to effectively decide upon a path that reduces risks of an adverse effect for individual animals while protecting any public health concerns.*

*In 2015, AHVMA participated as the KSVDL Rabies Lab conducted a survey to gather data from members about their policies regarding dog and cat vaccinations, including rabies vaccination. AHVMA respondents reported:*

- *92% gave rabies vaccinations.*
- *76% routinely offered titers for core vaccines after completion of the initial vaccine series*
- *34% offered titers for rabies after completion of the initial 2-dose series*
- *75% would measure rabies titers if the Compendium changes its stance to equate out-of-date rabies vaccine status the same way as they do animals current on rabies vaccines*

*Until legal changes occur, animal guardians and veterinarians must comply with existing legal statutes. Rabies serum antibody titering can be performed for information, documentation, and to satisfy export and import requirements, but this does not replace the legal requirement for rabies booster vaccinations.*

*It is the hope of both organizations that through cooperation and advancements in science we can illustrate our dedication to better health and safety for people and animals. As science advances we must update public policy to reflect our new understandings. This new testing is a great example of such cooperative efforts."*

For additional important information on rabies and rabies titers, please read the final few sections of "**Changes Sought to Rabies Vaccination Laws Based on Scientific Research**" by Dr. Dodds.

# Will Antibody Titer Tests Replace Automatic Re-vaccination?

The KSU news release concedes:

*"Yearly vaccines can sometimes create other health concerns. In cats, for example, yearly vaccinations have been linked to feline injection site sarcomas. Kansas State University's titer test for rabies could save a pet from one more injection at the yearly exam."*<sup>3</sup>

The press release goes on to say that a titer test for rabies at KSU costs \$30, and a test for rabies plus three additional core vaccines for either a cat or dog runs just \$50.

These very reasonable titer test costs aren't the norm, as many of my clients are quoted \$200 to \$350 by their vets for a canine distemper or parvovirus titer test. It is my fervent hope that not only will antibody titer tests become the first choice in lieu of re-vaccination for core diseases in cats and dogs, but that the cost of those tests will become affordable for the majority of pet owners.

## Sources and References

[Phys.org August 13, 2015](#)

<sup>1</sup> [Journal of the American Veterinary Medical Association, January 15, 2015, Vol. 26, No. 2, pp 205-211](#)

<sup>2,3</sup> [Kansas State University, August 12, 2015](#)

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