

Response to Questions about Rabies titers for DVM staff:

It is suggested that you

1. Consult one of your DVM's family physicians and ask if they offer that service and at what cost.
2. Contact the local department of health (see link below).
3. Consider having person trained in human venipuncture collect samples and send to one of the labs indicated way below in the CDC info. We have used Kansas State in the past.

From the Duval County Dept of Health:

<http://www.doh.state.fl.us/environment/medicine/rabies/Documents/RabiesGuide2011Binder.pdf>

From the AVMA:

Rabies titers

Who should be vaccinated against rabies?

Dr. Lynne White-Shim,
AVMA Scientific Activities
Division assistant director,
responds:

The Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices published a set of recommendations regarding human rabies prevention in 2008. These recommendations state that rabies pre-exposure vaccines should be offered to individuals with high risk for exposure to rabies, which includes veterinarians and their staff, as well as animal handlers and some researchers and laboratory personnel.

How often should veterinarians and their support staff have their rabies titers checked?

Most practicing veterinarians in the United States are considered to have a frequent risk for exposure to rabies and should have their titers checked every two years, per the CDC's ACIP recommendations. However, some veterinarians might need their titers checked more or less often, so veterinarians should consult the CDC's ACIP recommendations—Table 6 provides a summarized guide—to determine their relative risk of exposure to rabies. Veterinarians should take the CDC's ACIP resource with them to their physician's office for the titer check.

Two other helpful resources, which are developed by the National Association of State Public Health Veterinarians, are the Compendium of Veterinary Standard Precautions for Zoonotic Disease Prevention in Veterinary Personnel, and the Compendium of Animal Rabies Prevention and Control. The NASPHV advises that state health departments have information regarding the availability of rabies biologics and the presence of animal rabies locally and regionally.

What should veterinarians do if their rabies titer falls below an acceptable antibody level?

The CDC's ACIP resource indicates that if a rabies titer has fallen below the minimum acceptable antibody level, a single pre-exposure booster dose of vaccine is recommended for persons at frequent risk, which are most practicing veterinarians, or continuous risk of exposure to rabies.

If veterinarians or their physicians have further questions, the CDC can be contacted at (800) 232-4636. Or, they can go to the following websites:

www.cdc.gov/mmwr/preview/mmwrhtml/rr5703a1.htm,
www.avma.org/services/Compendium_of_Veterinary_Standard_Precautions.pdf, and
www.nasphv.org/Documents/RabiesCompendium.pdf

From the CDC:

Rabies Serology

In previous studies all healthy persons tested 2-4 weeks after completion of pre-exposure and postexposure rabies prophylaxis in accordance with ACIP guidelines demonstrated an adequate antibody response to rabies. Therefore, no testing of patients completing pre-exposure or postexposure prophylaxis is necessary to document seroconversion unless the person is immunosuppressed, significant deviations of the prophylaxis schedule occurs, or the patient initiated treatment internationally with a non-cell culture vaccine.

Rabies virus neutralization tests, such as the rapid fluorescent focus inhibition test (RFFIT), are currently the gold standard serology assay recommended by both the ACIP and WHO. While other serology tests, such as ELISA, may show promise and be appropriate for research, discrepant results between such tests and virus neutralization activity have been observed. Alternative assays not recommended by ACIP or WHO are not recommended for samples requiring clinical decision making.

RFFIT testing may be available in state through a state health department or University. The state or local health department may provide assistance with obtaining RFFIT testing in state if available. In addition, two commercial laboratories perform RFFIT testing for rabies.

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Kansas State University
1800 Denison Avenue
Manhattan, KS 66506-5600
Phone: 785-532-4483
www.vet.ksu.edu/depts/dmp/service/rabies/index.htm

Also From the CDC:

Vaccination and Serologic Testing

Post-Vaccination Serologic Testing

In CDC studies, all healthy persons tested 2--4 weeks after completion of pre-exposure and postexposure rabies prophylaxis in accordance with ACIP guidelines demonstrated an adequate antibody response to rabies (18,73,179,180). Therefore, no testing of patients completing pre-exposure or postexposure prophylaxis is necessary to document seroconversion unless the person is immunosuppressed. Patients who are immunosuppressed by disease or medications should postpone pre-exposure vaccinations and consider avoiding activities for which rabies pre-exposure prophylaxis is indicated. When that is not possible, immunosuppressed persons who are at risk for exposure to rabies should be vaccinated and their virus neutralizing antibody titers checked. In these cases, failures to seroconvert after the third dose should be managed in consultation with appropriate public health officials. When titers are obtained, specimens collected 1--2 weeks after pre-exposure or postexposure prophylaxis should completely neutralize challenge virus at a 1:5 serum dilution by the RFFIT. Antibody titers might decline over time since the last vaccination. Small differences (i.e., within one dilution of sera) in the reported values of rabies virus neutralizing antibody titer (most properly reported according to a standard as IU/mL) might occur among laboratories that provide antibody determination using the recommended RFFIT. Rabies antibody titer determination tests that are not approved by FDA are not appropriate for use as a substitute for RFFIT in suspect human rabies antemortem testing because discrepant results between such tests and measures of actual virus neutralizing activity by RFFIT have been observed (181).