



2022 Veterinary Advisory #3: Revised Rabies Preexposure Prophylaxis Recommendations How they Impact Veterinarians

- On May 6, 2022, the Advisory Committee on Immunization Practices issued formal guidance detailing several modifications to rabies preexposure prophylaxis (PrEP) recommendations, including:
 - A two-dose (days 0 and 7) intramuscular rabies vaccination series is now recommended instead of a three-dose series; a two-dose series will provide protection for at least three years
 - Risk categories are now redefined into five groups with corresponding recommendations to ensure a long-term anamnestic response is maintained beyond the three years
- Most veterinarians and veterinary technicians fall into risk category 3 for which:
 - Those seeking PrEP for the first time should:
 - Receive the two-dose series and;
 - Obtain **either** a one-time titer check 1 to 3 years following the two-dose PrEP vaccination **or** a one-dose booster between 3 weeks and 3 years following the first vaccine in the two-dose PrEP vaccination series
 - Serial titer testing every two years is no longer recommended, including for those who previously received a three dose PrEP series
- PrEP does not eliminate the need for postexposure prophylaxis (PEP); however, it does simplify the rabies PEP schedule (i.e., eliminates the need for rabies immunoglobulin and decreases the number of vaccine doses required for PEP).
- More information on the new PrEP schedule can be found online:
 - [Use of a Modified Preexposure Prophylaxis Vaccination Schedule to Prevent Human Rabies: Recommendations of ACIP — United States, 2022](#)
 - Brief summary on the [CDC rabies PrEP page](#)

Please share with your colleagues in veterinary medicine and your staff

May 13, 2022

Dear Colleagues,

Rabies pre-exposure prophylaxis (PrEP) is recommended for veterinarians and other people who may have a higher level of risk of exposure to rabies. Formal guidance describing changes to rabies PrEP recommendations issued by the Centers for Disease Control and Prevention (CDC) Advisory Committee on Immunization Practices (ACIP) was [published](#) on May 6, 2022. Two major changes that apply to most veterinarians and veterinary staff are: (1) reducing the number of vaccines needed for people receiving PrEP to a two-dose series (day 0 and 7), which will provide protection for at least three years;

and (2) redefining the risk categories into five groups and updating the corresponding recommendations for each risk category to maintain long-term immunogenicity beyond three years.

The five risk categories are based on the level of risk for exposure to rabies and takes into consideration workplace activities (see Table below). Most veterinarians and veterinary staff who work in a clinical setting are in risk category 3 (people who interact, or are at higher risk to interact, with mammals other than bats that could be rabid). In accordance with new recommendations, people in risk category 3 who receive PrEP should:

1. Complete a two-dose intramuscular rabies vaccine series (day 0 and 7). This will provide protection for at least three years.
2. Obtain **either** a one-time titer check 1 to 3 years later **or** a booster dose 3 weeks to 3 years later. This is done to ensure a long-term anamnestic response is maintained beyond the three years. If a one-time titer is performed, a booster should be given when the titer is < 0.5 IU/ml.

Serial titer testing every two years is no longer recommended for people in risk category 3, including veterinarians who have already completed a three-dose rabies PrEP series.

Receipt of PrEP does not eliminate the need for postexposure prophylaxis (PEP); however, it does simplify the rabies PEP schedule (i.e., eliminates the need for rabies immunoglobulin and decreases the number of vaccine doses required for PEP). Rabies PEP is always indicated for people with a known or potential exposure to rabies, including for those who have received rabies PrEP.

Veterinarians who have an elevated risk for an **unrecognized** exposure to rabies may fall into the highest risk categories 1 and 2. This may include veterinarians who work with live rabies virus in a laboratory, have contact with bats, or perform necropsies on known or potentially rabid animals where the exposure might go unrecognized and not perceived by the exposed person (e.g., a small scratch to the skin during a personal protective equipment breach while testing neural tissue from a rabid animal or conducting ecologic studies on bats in the field). People in risk categories 1 and 2 who receive PrEP should complete a two-dose rabies vaccine series (day 0 and 7). Checking serial titers is still advised to ensure maintenance of persistently elevated rabies antibody titers which may provide some protection when PEP is not sought for an unrecognized exposure.

PrEP administered to people who are immunocompromised and management of deviations from the recommendations requires additional considerations as described under the Clinical Guidance section of the ACIP report.

Why did the recommendations change?

To reflect a growing body of data around rabies vaccinations and risk of exposure to rabies and to facilitate improved adherence to vaccination recommendations. Following a two-dose PrEP series, data show an anamnestic response occurs at 3 years, however the anamnestic response beyond 3 years has not been evaluated. In the absence of this data ACIP recommends either of the two methods described above for inferring long-term immunogenicity (i.e., an anamnestic response >3 years after the 2-dose primary vaccination series).

What does this mean for me if I already received rabies PrEP?

Veterinarians and others in risk category 3 who completed a three-dose rabies PrEP series are already compliant with the new recommendations. The last vaccine dose received as part of a three-dose series is equivalent to a booster dose between week 3 to year 3 in this new update. Serial titer testing is no longer recommended.

Why don't I need to have my titers checked?

Recognized exposures, as defined by ACIP, are bites, scratches, and splashes for which post-exposure prophylaxis (PEP) would be sought because the exposures are usually registered by a person as unusual (e.g., contact with a bat) or painful (e.g., bite or scratch from a raccoon). Most high-risk activities involving live animals, including providing veterinary health care, are associated with only recognized exposures (risk categories 3 and 4); checking serial titers is unnecessary because recognized exposures should always prompt evaluation for PEP.

CDC Summary of Risk Categories and PrEP Recommendations

RISK CATEGORY	WHO THIS TYPICALLY AFFECTS	RECOMMENDATIONS
Risk category 1 <i>Highest risk</i>	Work with live or concentrated rabies virus in laboratories	-2 doses, days 0 and 7 -Check titer every 6 months
Risk category 2	Frequently do at least one of the following: handle bats, have contact with bats, enter high-density bat environments like caves, or perform animal necropsies	-2 doses, days 0 and 7 -Check titer every 2 years
Risk category 3	Interact, or are at higher risk to interact, with mammals other than bats that could be rabid, for a period longer than three years after they receive PrEP This group includes most veterinarians, veterinary technicians, animal control officers, wildlife biologists, rehabilitators, trappers, and spelunkers (cave explorers) Certain travelers to regions outside of the United States where rabies in dogs is commonly found	-2 doses, days 0 and 7, -Plus either; A one-time titer check 1 to 3 years following the 2-dose vaccination OR 1-dose booster between 3 weeks and 3 years following the first vaccine in the 2-dose vaccination
Risk category 4	Same population as risk category 3, but at a higher risk for ≤ 3 years after they receive PrEP	2 doses, days 0 and 7
Risk category 5	General U.S. population	None

Additional Resources

[NYC Health - Rabies](#) and [NYC Health - Rabies Statistics](#)

As always, we greatly appreciate your partnership and cooperation.

Sincerely,

Sally Slavinski, DVM, MPH, DACVPM
Zoonotic and Vectorborne Disease
Bureau of Communicable Disease

If you do not receive these alerts via email and would like to, please email zivdu@health.nyc.gov to be added to the distribution list