

ADVISORY: New Recommendations for Rabies Pre-Exposure Prophylaxis to Prevent Human Rabies

DATE:	07/15/2022
TO:	Health Alert Network
FROM:	Denise A. Johnson, M.D., FACOG, FACHE, Acting Secretary of Health
SUBJECT:	New Recommendations for Rabies Pre-Exposure Prophylaxis to Prevent Human Rabies
DISTRIBUTION:	Statewide
LOCATION:	n/a
STREET ADDRESS:	n/a
COUNTY:	n/a
MUNICIPALITY:	n/a
ZIP CODE:	n/a

This transmission is a “Health Advisory” provides important information for a specific incident or situation; may not require immediate action.

HOSPITALS: PLEASE SHARE WITH ALL MEDICAL, PEDIATRIC, NURSING AND LABORATORY STAFF IN YOUR HOSPITAL; **EMS COUNCILS:** PLEASE DISTRIBUTE AS APPROPRIATE; **FQHCs:** PLEASE DISTRIBUTE AS APPROPRIATE **LOCAL HEALTH JURISDICTIONS:** PLEASE DISTRIBUTE AS APPROPRIATE; **PROFESSIONAL ORGANIZATIONS:** PLEASE DISTRIBUTE TO YOUR MEMBERSHIP; **LONG-TERM CARE FACILITIES:** PLEASE SHARE WITH ALL MEDICAL, INFECTION CONTROL, AND NURSING STAFF IN YOUR FACILITY.

On May 6, 2022, CDC and ACIP released official updated guidance on Rabies Preexposure Prophylaxis (PrEP) that included the following major updates:

- A 2-dose PrEP schedule has replaced the 3-dose PrEP schedule to protect for up to 3 years. Options for maintaining protection beyond 3 years are also described.
- Risk categories have been redefined into 5 risk groups.
- The minimum acceptable laboratory value (antibody titer) used to determine whether rabies vaccine booster doses are needed was revised and standardized.
- Many people for whom serial titers were recommended every 2 years now require only a one-time titer (and booster if below a certain level) OR a one-time booster.
- Clinical guidance for administering PrEP to people with weakened immune systems has been outlined and includes recommendations to confirm that the vaccine was effective.

Pennsylvania Department of Health (DOH) provides this guidance based on available information about rabies pre-exposure prophylaxis (PrEP) and is subject to change.

On May 6, 2022, the Advisory Committee on Immunization Practices (ACIP) and the Centers for Disease Control and Prevention (CDC) released [new guidance](#) on the use of pre-exposure prophylaxis (PrEP) vaccinations to prevent human rabies. The Pennsylvania Department of Health (DOH) provides this guidance based on these updates.

Fewer vaccine doses (2 vs 3) as part of PrEP as part of primary vaccination schedule

ACIP now recommends all persons for whom rabies PrEP is indicated receive 2 intramuscular (IM) doses on days 0 and 7. These recommendations apply both to immunocompetent and immunocompromised persons. PrEP administered to immunocompromised persons requires [additional considerations](#).

A single minimum acceptable rabies titer level

ACIP now endorses 0.5IU/mL as the minimum acceptable rabies titer level. This update is to align with the World Health Organization (WHO) standards.

Risk categories defined on potential for unrecognized or recognized exposures

Please see Table 1 for a summary of the new risk categories and PrEP recommendations.

The recommendations for PrEP depend on the level of a person's risk for being exposed to rabies. The new recommendations defined risk categories into five groups which take into consideration whether an exposure is recognizable as well as the nature of work.

Unrecognized exposures are part of the criteria for defining Risk Categories 1 and 2:

- An unrecognized exposure is unnoticed, including a small scratch to the skin during an inconspicuous personal protective equipment breach.
- Persons at risk for unrecognized exposures include those testing neural tissue from a rabid animal or conducting ecologic studies on bats in the field.
- Serial titer checks for maintenance of persistence of elevated rabies antibody titer are still necessary to ensure protection from an unrecognized exposure.

Recognized exposures, which help define Risk Categories 3 and 4, include bites, scratches, and splashes.

- These 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 (e.g., providing veterinary health care or participating in outdoor activities in countries with endemic canine rabies variant virus) are associated with only recognized exposures.
- Checking serial titers is unnecessary because recognized exposures should always prompt evaluation for PEP.

Redefined risk categories provide options for ensuring long-term immunogenicity, less frequent or no antibody titer checks for persons recommended to receive PrEP.

- Risk Category 1
 - Rabies antibody titers checked every 6 months, and
 - A rabies vaccine booster if titer is <0.5 IU/mL.
- Risk Category 2
 - Rabies antibody titers checked every 2 years, and
 - A rabies vaccine booster if titer is <0.5 IU/mL.
- Risk Category 3
 - Either one rabies antibody titer check during years 1-3 after completion of 2-dose primary rabies vaccine series and receive rabies vaccine booster dose if titer is <0.5 IU/mL, OR

- Preemptively receive a one-time IM booster dose of rabies vaccine any time between day 21 and year 3 after completion of the 2-dose primary series.
- Risk Category 4
 - No rabies vaccine booster or rabies antibody titers needed.

Additional information for clinicians treating travelers, patients with high-risk health conditions, and managing deviations from the recommended schedule can be found [here](#).

Table 1. Risk Categories and PrEP Recommendations.

Risk Category	Who this typically affects	Recommendations
Risk category 1 <i>Highest risk</i>	People who work with live or concentrated rabies virus in laboratories	2 doses, days 0 and 7 Check titer every 6 months
Risk category 2	People who 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	<p>People who interact with, 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</p> <p>This group includes:</p> <ul style="list-style-type: none"> ● 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 	<p>2 doses, days 0 and 7, plus:</p> <p>Either a one-time titer check after 1 year and up to 3 years following the first 2-dose vaccination</p> <p style="text-align: center;">OR</p> <p>1-dose booster between 3 weeks and 3 years following the first vaccine in the 2-dose vaccination</p>
Risk category 4	Same population as risk category 3, but at a higher	2 doses, days 0 and 7

	risk for ≤ three years after they receive PrEP	
Risk category 5 <i>Lowest risk</i>	General U.S. population	None

*The typical characteristics described may not include the characteristics of all activities that fall within the described risk group.

For human exposure animal rabies testing: refer to the Department of Health Bureau of Laboratories website: [Rabies \(pa.gov\)](http://rabies.pa.gov)

[Vaccine Information Statement: Rabies Vaccine - what you need to know \(cdc.gov\)](https://www.cdc.gov/vaccines/imz/downloads/p/2019-08-14-rabies-vaccine-what-you-need-to-know.pdf)

For detailed information about these recommendations, please refer to the published [MMWR](https://www.cdc.gov/mmwr).

If you have questions about this guidance, please call your local health department or **1-877-PA-HEALTH (1-877-724-3258)**. Individuals interested in receiving further PA-HANs are encouraged to register at <https://han.pa.gov/>.

Categories of Health Alert messages:

Health Alert: conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: provides important information for a specific incident or situation; may not require immediate action.

Health Update: provides updated information regarding an incident or situation; unlikely to require immediate action.

This information is current as of July 15, 2022 but may be modified in the future. We will continue to post updated information regarding the most common questions about this subject.