

## Payment Policy | Rabies Treatment: Pre and Post Exposure



**EFFECTIVE DATE:** 12|02|2001  
**POLICY LAST UPDATED:** 08|02|2023

### OVERVIEW

Rabies is a viral infection transmitted in the saliva of infected mammals. The virus enters the central nervous system of the host, causing an encephalomyelitis that is almost always fatal. Vaccines and globulins are available to treat pre and post exposure to the vaccine.

### MEDICAL CRITERIA

Not applicable

### PRIOR AUTHORIZATION

Not applicable

### POLICY STATEMENT

#### Medicare Advantage Plans

Rabies vaccines and globulins are covered for post-exposure to the rabies virus.

#### Commercial Products

Rabies vaccines and globulins are covered for pre-exposure and post-exposure the rabies virus.

The Rhode Island Department of Health (DOH) no longer provides the vaccines or immunoglobulins for pre and post-exposure to rabies and will only provide the case management portion. Therefore, the vaccine and immunoglobulin will be supplied by local hospitals as it is not typically available in a physician's office. The hospital administering the injections should bill Blue Cross and Blue Shield of Rhode Island (BCBSRI) directly for the drug.

Non-Covered: Rabies vaccinations, as a requirement for school or employment or related to an employment exposure, (e.g., employees of veterinary hospitals, animal control officers) are considered a contract exclusion.

### COVERAGE

Benefits may vary between groups and contracts. Please refer to the appropriate Benefit Booklet, Evidence of Coverage or Subscriber Agreement for applicable vaccine and infusion benefits/coverage.

### BACKGROUND

Over the last 100 years, rabies in the United States has changed dramatically. More than 90% of all animal cases reported annually to the Centers for Disease Control and Prevention (CDC) now occur in wildlife; before 1960 the majority were in domestic animals. The principal rabies hosts today are wild carnivores and bats. The number of rabies-related human deaths in the United States has declined from more than 100 annually at the turn of the century to one or two per year in the 1990's. Modern day prophylaxis has proven nearly 100% successful. In the United States, human fatalities associated with rabies occur in people who fail to seek medical assistance, usually because they were unaware of their exposure.

Pre-exposure vaccination is offered to persons in high-risk groups, such as veterinarians, animal handlers, and certain laboratory workers. Pre-exposure vaccination also should be considered for people whose activities bring them into frequent contact with rabies virus or potentially rabid bats, raccoons, skunks, cats, dogs, or other species at risk for having rabies.

In addition, international travelers might be candidates for pre-exposure vaccination if they are likely to come in contact with animals in areas where dog rabies is prevalent and immediate access to appropriate medical care, including biologics, might be limited.

Post-exposure prophylaxis should be evaluated by a physician for each possible exposure to rabies and, if necessary, consult with the local or state public health officials regarding the need for rabies prophylaxis. Rabies is transmitted only when the virus is introduced into bite wounds or open cuts in skin, or on to mucous membranes. If no exposure has occurred (i.e., no bite or non-bite exposure), post-exposure prophylaxis is not necessary.

Post-exposure prophylaxis treatment utilizes the following:

1. Globulin: Provide rapid passive immunity that persists for a short time (half-life of about 21 days).
  - a. Types may include:
    - i. Rabies immune globulin (RIG) Anti-rabies serum, equine (ARS) preferred over RIG
    - ii. RIG; half the dose IM, the other half in the wound (bite), on the day of the exposure; and
2. Vaccines: Induce an active immune response that requires about 7 to 10 days to develop, but persists for as long as a year or more.
  - a. Types may include:
    - i. Human diploid cell rabies vaccine (HDCV)
    - ii. Rabies vaccine, adsorbed (RVA)

Post-exposure injections are usually administered in the following manner:

1. When the patient has not been previously immunized:
  - a. HDCV, IM, on the day of exposure and days 3, 7, 14, and 28.
2. When the patient has been previously immunized:
  - a. HDCV on the day of the exposure and day 3.

The likelihood of rabies infection varies with the nature and extent of exposure. In the United States, the type of exposures should be considered before specific anti-rabies, post-exposure prophylaxis is initiated. The types of exposure are as follows:

**Bite exposure:** Any penetration of the skin by teeth constitutes a bite exposure. All bites, regardless of location, represent a potential risk of rabies transmission. Bites by some animals, such as bats, can inflict minor injury and thus be undetected.

**Non-bite exposure:** Non-bite exposures from terrestrial animals rarely cause rabies. However, occasional reports of transmission by non-bite exposure suggest that such exposures constitute sufficient reason to consider post-exposure prophylaxis. The non-bite exposures of highest risk appear to be among persons exposed to large amounts of aerosolized rabies virus and surgical recipients of corneas transplanted from patients who died of rabies.

The contamination of open wounds, abrasions, mucous membranes, or theoretically, scratches, with saliva or other potentially infectious material (such as neural tissue) from a rabid animal also constitutes a non-bite exposure. Other contact by itself, such as petting a rabid animal and contact with blood, urine, or feces (e.g., guano) of a rabid animal, does not constitute an exposure and is not an indication for prophylaxis. Because the rabies virus is inactivated by desiccation and ultraviolet irradiation, in general, if the material containing the virus is dry, the virus can be considered noninfectious.

## **CODING**

### **Medicare Advantage Plans and Commercial Products**

The following codes are covered based on the policy statement:

Immune Globulin Codes:

**90375** Rabies immune globulin (RIg), human, for intramuscular and/or subcutaneous use

**90376** Rabies immune globulin, heat-treated (RIg-HT), human, for intramuscular and/or subcutaneous use

**90377** Rabies immune globulin, heat- and solvent/detergent-treated (RIg-HT S/D), human, for intramuscular and/or subcutaneous use (New Code effective 1/1/2021)

Vaccine Codes:

**90675** Rabies vaccine, for intramuscular use

**90676** Rabies vaccine, for intradermal use

For Medicare Part B coverage, the following diagnosis code is required with the applicable CPT vaccine codes:

**Z20.3** Contact with and (suspected) exposure to rabies

**Note:** In the event that a member's state (i.e. Rhode Island) does not provide the vaccine, the vaccine code should be billed utilizing the "22" modifier with the appropriate administration code(s).

## RELATED POLICIES

Immunizations Adult and Pediatric

## PUBLISHED

Provider Update, October 2023

Provider Update, July 2020

Provider Update, May 2018

Provider Update April 2017

## REFERENCES

Centers for Disease Control and Prevention. Rabies. <https://www.cdc.gov/rabies/index.html>

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