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
BlueCHiP for Medicare
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
**BlueCHiP for Medicare 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
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, July 2020
Provider Update, May 2018
Provider Update April 2017

REFERENCES

This medical policy is made available to you for informational purposes only. It is not a guarantee of payment or a substitute for your medical judgment in the treatment of your patients. Benefits and eligibility are determined by the member's subscriber agreement or member certificate and/or the employer agreement, and those documents will supersede the provisions of this medical policy. For information on member-specific benefits, call the provider call center. If you provide services to a member which are determined to not be medically necessary (or in some cases medically necessary services which are non-covered benefits), you may not charge the member for the services unless you have informed the member and they have agreed in writing in advance to continue with the treatment at their own expense. Please refer to your participation agreement(s) for the applicable provisions. This policy is current at the time of publication; however, medical practices, technology, and knowledge are constantly changing. BCBSRI reserves the right to review and revise this policy for any reason and at any time, with or without notice. Blue Cross & Blue Shield of Rhode Island is an independent licensee of the Blue Cross and Blue Shield Association.