

Recommended Post-Exposure Prophylaxis for Bites from Potentially Rabid Animals

The combined approach of local wound care, RIG, and vaccine is essentially 100% effective prophylaxis against rabies. Routine post-vaccination serologic testing is not recommended unless warranted by individual circumstances (e.g., immunosuppressed patients).

Local Wound Care

This is the first and perhaps most important step in preventing rabies.

- Thoroughly clean the wound with soap and water.
- Irrigate with a virucidal agent such as povidone-iodine solution.
- Debride the wound, if appropriate.
- If clinically indicated, administer tetanus immunization and measures to prevent or control bacterial infections.
- The decision to suture large wounds should take into account cosmetic factors and the potential for bacterial infection.

Human Rabies Immune Globulin (RIG)

Rabies Immune Globulin (RIG, passive immunization) is recommended because it provides immediate antibodies that inactivate the virus. RIG should not be given to a patient who has previously completed a series of rabies vaccinations.

- Administer RIG along with the first dose of vaccine regardless of the time interval between exposure and initiation of treatment.
- The recommended RIG dose for all age groups is 20 IU per kg of body weight.
 - If anatomically feasible, thoroughly infiltrate the entire dose into and around the wound(s).
 - Administer any remaining volume intramuscularly at a site distant from the vaccine inoculation.
- If RIG is not immediately available, it may be administered up to 7 days following the first dose of vaccine. Beyond the seventh day, RIG is not recommended since an antibody response to the vaccine is presumed to have occurred.

Human Rabies Vaccine

Rabies vaccines (active immunization) stimulate the immune system to produce antibodies to inactivate the virus. With the current vaccine schedule, protective antibodies are not seen until about the seventh day after beginning the regimen. Therefore, it is necessary to administer passive immunization with RIG initially to provide protection during this interval. The first vaccine dose and RIG can be administered at the same time but never with the same syringe or in the same anatomic location.

- Administer a series of four 1ml doses intramuscularly in the deltoid region (or the anterolateral aspect of the thigh is acceptable in children). Vaccine failures have been reported when administered in the gluteal region.
- Give the first dose (day 0) as soon as possible after exposure (unless animal rabies testing is pending). Give the other 3 doses on days 3, 7, and 14.
- For individuals who previously completed a series of rabies immunizations, RIG is not required and vaccine is administered only on days 0 and 3.
- For immunocompromised persons, rabies PEP should be administered using a 5-dose vaccine regimen (i.e., 1 dose of vaccine on days 0, 3, 7, 14, and 28). Post-vaccination serologic testing is recommended to ensure that an acceptable antibody response has developed.

Rabies Biologics Currently Available—United States, 2018

Human Rabies Vaccine

Biologic	Product Name/ Manufacturer	Potency
Human diploid cell vaccine	Imovax® / Sanofi Pasteur	≥2.5 international units (IU) of rabies
Purified chick embryo cell vaccine (PCECV)*, †, ‡	RabAvert® / GlaxoSmithKline (GSK)	≥2.5 IU of rabies antigen

*Dose: Single dose vial of vaccine should be reconstituted with accompanying sterile diluent to final volume of 1mL before administration.

†Administration Route: Intramuscular in the deltoid area for adults, in the deltoid area or the anterolateral aspect of the thigh for children. Do NOT use the gluteal area for HDCV or PCECV.

‡Indications: Pre-exposure AND post-exposure prophylaxis.

Human Rabies Immune Globulin (RIG)

Biologic	Product Name/ Manufacturer	Potency	Dose
Human immunoglobulin*, †	Imogam® Rabies-HT / Sanofi Pasteur	150 IU/mL	20 IU/kg
Human immunoglobulin*, †	KEDRAB™3 / Kedrion Biopharma and Kamada Ltd	150 IU/mL	20 IU/kg
Human immunoglobulin*, †	HyperRab™ S/D / Grifols	150 IU/mL	20 IU/kg
Human immunoglobulin*, †	HyperRab®/ Grifols	300 IU/mL	20 IU/kg

*Administration Route: Local infiltration around wound, with remaining immunoglobulin administered intramuscularly in an anatomical site distant from where vaccine was placed.

†Indications: Post-exposure prophylaxis with human rabies immune globulin is indicated for ONLY those persons who 1) did not receive appropriate pre-exposure prophylaxis and 2) have not previously received post-exposure prophylaxis for rabies in accordance with ACIP recommendations.

Biologics Manufacturer Information:

Sanofi Pasteur: www.vaccineshoppe.com; (800) 822-2463

GSK: <https://www.gsksource.com/pharma/content/gsk/source/us/en/brands/rabavert.html>; 866-475-8222

Kedrion Biopharma and Kamada Ltd: <https://kedrab.com/ordering-reimbursement/>

Grifols: <https://www.hypermunes.com/en/hcp/ordering-hypermunes>

For more information on care and post-exposure prophylaxis, please visit:

https://www.cdc.gov/rabies/medical_care/index.html