



## Clinical Pearls: HyperRAB®, the Newly Approved HRIG for Rabies

by Erika Chan, PharmD

Rabies is a serious viral disease that is transmitted from animals to humans by bites. Wild animals such as bats, raccoons, dogs, cats, skunks, foxes, and other mammals are the common source of infection. Human rabies is rare in the United States, with only one to three cases reported annually. However, it is fatal without any cure once infected and symptoms are present. Signs and symptoms of rabies may first present as general weakness, fever, or headache, and progress to anxiety, confusion, agitation, cerebral agitation, insomnia, delirium, hallucinations, and other abnormal behaviors.

**Pre-exposure:** People who are at high risk of exposure to rabies should receive three doses of rabies vaccines: day 0, day 7, and day 21 or 28.

**Post-exposure:** Anyone who was bitten by an animal must first clean the wound and seek medical attention immediately. Those who have been vaccinated should receive two doses of rabies vaccine: day 0 and day 3. Those who have never been vaccinated should receive four doses of vaccines: day 0, day 3, day 7, and day 14. In the latter case, CDC recommends the administration of human rabies immune globulin (HRIG), in addition to the vaccine, because the vaccine alone would not provide sufficient protection in those who have never been vaccinated prior to the exposure. HRIG will provide immediate antibodies until the body can respond to the vaccine by actively producing its own antibodies. A full dose of HRIG should be thoroughly infiltrated in the area around and into the wounds, and the remainder is injected intramuscularly. The recommended dose of HRIG is 20 IU/kg-body-weight, including children, for all the currently available products.

HyperRAB® S/D has been one of the commonly used HRIG products. HyperRAB® (300 IU/mL) is the newly approved formulation of HyperRAB® S/D (150 IU/mL). The dosing for HyperRAB® is 20 IU/kg-body-weight, same as for HyperRAB® S/D, but this change in the potency allows the reduction in the HRIG volume injected by half. The benefit is the easier administration to the wounds in delicate areas such as extremities or face.

FDA approval of HyperRAB® is the first improvement in human rabies immune globulin (HRIG) treatment in over 40 years, since the introduction of HyperRAB® in 1974. The Pharmacy & Therapeutics Committee at University Hospital of Brooklyn recently approved the protocol for HyperRAB® and the products are available to be dispensed from the Pharmacy Department upon request.

### References:

1. "Rabies Vaccine." <https://www.cdc.gov/vaccines/hcp/vis/vis-statements/rabies.pdf>
2. "New Formulation of HyperRAB Approved for Rabies Post-Exposure Prophylaxis" empr.com. <https://www.empr.com/news/rabies-immune-globulin-hyper-rab-high-potency-antibodies-wound-site/article/742243/>
3. "Grifols HyperRAB® (rabies immune globulin [human]) 300 IU/mL Receives FDA Approval to Treat Patients Exposed to Rabies Virus Infection" prnewswire.com. <https://www.prnewswire.com/news-releases/grifols-hyper-rab-rabies-immune-globulin-human-300-iu/ml-receives-fda-approval-to-treat-patients-exposed-to-rabies-virus-infection-300594182.html>
4. Package insert [HyperRAB®]

## Crossword Puzzle: Immunization

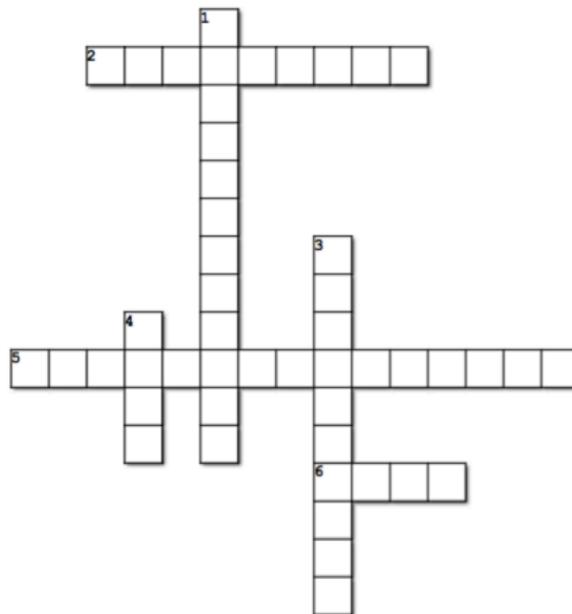
by Jennifer Tsan, Pharmacy Student

### Across

2. This type of lung infection causes cough, shortness of breath, chills, fatigue and fever
5. If you had chickenpox you're at risk of another disease caused by this virus
6. A combination vaccine that protects against tetanus, diphtheria, pertussis and is boosted every 10 years

### Down

1. This type of vaccine has 4 different strains of the flu virus and approved for use in different age groups
3. This virus is a contagious liver disease that can either be acute or chronic and is curable
4. These type of vaccines are contraindicated in pregnancy



## P & T Committee

### Updates from July, August, and September meetings:

- Pediatric ASP First-Dose
- Adult C. diff Management Guidelines
- HIV Antiretroviral Clinician's Pocket Guide (Antimicrobial Stewardship Program website)