

## **PRE-EXPOSURE RABIES VACCINATIONS FOR WORKSHOP PARTICIPANTS**

Bat Conservation International (BCI) requires that all participants of the Bat Conservation and Management Workshops receive rabies pre-exposure vaccination prior to handling bats during the workshop.

### **WHAT IS RABIES AND HOW IS IT TRANSMITTED?**

Rabies is a viral infection transmitted in the saliva of infected mammals. The virus enters the central nervous system, causing encephalomyelitis (inflammation of the brain and/or spinal cord) which is always fatal. Rabies is transmitted when the virus is introduced into bite wounds or open cuts in skin or onto mucous membranes. Also, exposure can result from contamination of open wounds, abrasions, mucous membranes, or scratches, with saliva or other potentially infectious materials (such as neural tissue) from a rabid animal.

### **WHY DOES BCI INSIST ON PRE-EXPOSURE VACCINATION?**

BCI believes in safety for all workshop participants who will regularly come into physical contact with bats. While you can assure your own safety by never handling bats or other wild animals, certain research and conservation techniques require that bats be handled. Because of this, BCI requires that all participants in research projects and educational workshops receive pre-exposure vaccination and wear leather gloves when handling bats. Our first and foremost concern is the safety and well-being of participants.

### **WHAT DO I NEED TO KNOW ABOUT PRE-EXPOSURE RABIES VACCINATIONS?**

Pre-exposure vaccinations are administered for several reasons. First, although pre-exposure vaccination does not eliminate the need for additional medical care after a rabies exposure, it simplifies management by eliminating the need for immune globulin and decreasing the number of doses of vaccine needed. Second, pre-exposure vaccination might protect persons whose access to post-exposure prophylaxis is delayed. Finally, it might provide protection to persons at risk for unapparent exposures to rabies.

### **WHAT RABIES VACCINES ARE AVAILABLE IN THE UNITED STATES?**

Rabies vaccines currently available in the U.S. include Imovax® (HDCV-Human Diploid Cell Vaccine) and RabAvert® (PCEC-Purified Chick Embryo Vaccine). Pre-exposure vaccination consists of a regimen of three 1.0 ml injections of HDCV OR PCEC administered intramuscularly (deltoid area) -- one per day on Day 0, Day 7, and Day 21 or 28. For this reason, it is imperative that the series of injections are begun at least one month prior to participation in a BCI workshop for all participants who will be handling bats. The vaccination series can be expensive, so please check with your medical health facility regarding cost beforehand.

### **ARE THERE POSSIBLE SIDE EFFECTS?**

There are possible side effects related to any medication. Vaccine manufacturers are required to provide a list of possible side effects with these products which are available to your physician or other medical health professional. This information may also be available on the vaccine manufacturers' web sites (see below).

### **WHAT DO I DO IF I HAVE A POSSIBLE RABIES EXPOSURE?**

In the event of a possible exposure, wash the area thoroughly with soap and water and seek medical care. Post-exposure prophylaxis should be sought for any suspected rabies exposure regardless of pre-exposure vaccination. Previously vaccinated persons exposed to rabies should receive two injections (1.0 ml each) of vaccine intramuscularly, one immediately and one 3 days later. Previously vaccinated persons are those who have received one of the recommended Pre-exposure or Post-exposure regimens of HDCV, RVA (Rabies Vaccine Adsorbed – no longer available), or PCEC, or those who received another vaccine and had a documented rabies antibody titer. **RIG is unnecessary and should not be administered to these persons**

because an anamnestic response will follow the administration of a booster regardless of the pre-booster antibody titer.

### **HOW LONG WILL MY PRE-EXPOSURE VACCINATIONS LAST?**

If you continue work with bats, you should have a blood sample tested for rabies neutralizing antibody (VNA) every two years. If the titer (level of rabies VNA) is less than 1:5 (complete neutralization of rabies virus at a serum dilution at 1:5 by RFFIT), you should received a single booster dose of vaccine. Examples of laboratories that receive blood for “end point” titer checks include: Atlanta Health Associates, 309 Pirkle Ferry Road, Suite D300, Cumming, GA 30040, (770) 205-9091 or (800) 717-5612, Website: <http://www.Atlantahealth.net> and Kansas State Veterinary Diagnostic Laboratory, 1800 Denison Avenue, Manhattan, KS 66506-5606, (866) 512-5650, Website: <http://www.vet.ksu.edu/depts/dmp/service/rabies/index.htm>.

Remember, in the case of suspected rabies exposure, post-exposure prophylaxis is required as described above.

### **HOW DO I GET THE VACCINE?**

The details of administration of the rabies vaccine differs from state to state. To find out the regulations in your state, please contact your personal physician or local Public Health Department.

### **WHO SHOULD I CALL WITH QUESTIONS?**

Further information on rabies and its prevention can be obtained from your physician, state health department, the Centers for Disease Control and Prevention, and the manufacturers of the vaccines.

Also, feel free to call our office any time with questions or concerns, and speak with our Science Officer, Barbara French ([french@batcon.org](mailto:french@batcon.org)), 512-327-9721.

### **VACCINE MANUFACTURERS:**

Human Rabies Vaccines Purified Chick Embryo Cell (PCEC) Vaccine, RabAvert®  
Novartis Vaccines and Diagnostics  
Phone (800) 244-7668  
Website: <http://www.rabavert.com>

Human Diploid Cell Vaccine (HDCV), Imovax® Rabies  
Sanofi Pasteur  
Phone: (800) VACCINE (822-2463)  
Website: <http://www.vaccineplace.com/products>

### **REFERENCES:**

Centers for Disease Control and Prevention. Human rabies prevention — United States, 1999: Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1999;48(No. RR-1): 1-17 (<http://www.cdc.gov/mmwr/PDF/rr/rr4801.pdf>)

<http://www.cdc.gov/rabies/>