Raccoon and Bat Rabies Virus Variants Are Enzootic in New Jersey

During 2011, 257 terrestrial animals and 36 bats were confirmed at the New Jersey Public Health, Environmental and Agricultural Laboratories to be infected with rabies, for a total of 293 animal cases. The total number of animal rabies cases in New Jersey has remained consistent over the last five years, indicative of the enzootic status of the disease in the raccoon and bat populations. New Jersey animal rabies statistics are posted on the New Jersey Department of Health and Senior Services (NJDHSS) website: http://www.state.nj.us/health/cd/rabies_stats.shtml.

New Jersey has both raccoon and bat rabies virus variants, existing in separate ecologic cycles in the state. Raccoons infect other terrestrial wildlife species, most commonly (in order of incidence) skunks, foxes and groundhogs. Because bats do not spend time on the ground, bat variant rabies virus infrequently spreads to other animals. Rabid bats are a significant public health concern because bat variant rabies virus is the cause of the majority of the human rabies case acquired in the United States. The number of bats identified with rabies has been decreasing, which may reflect decreased bat pop-
Immunizing children, adolescents and adults against vaccine-preventable diseases is one of the most important things health care providers can do to keep individuals and communities healthy. Fortunately, there are vaccines available to protect against many diseases. Providers are able to choose among a variety of vaccines containing individual antigens or a combination of antigens to best meet the needs of the consumers.

Unfortunately, the vaccination schedules are often complicated and can be confusing. The Advisory Committee on Immunization Practices (ACIP) annually updates the recommended immunization schedules. The 2012 Child, Adolescent, Adult and Catch-Up immunization schedules are available through the Center for Disease Control and Prevention (CDC) website at [www.cdc.gov/vaccines/default.htm](http://www.cdc.gov/vaccines/default.htm). These schedules indicate which vaccines are appropriate for each age group. In addition, these schedules display the recommended minimum age for a particular vaccine or vaccine dose and the minimum interval between vaccines. It is very important to adhere to both the minimum age and minimum interval when administering vaccines. Individuals who receive a vaccine at too young an age or sooner might not fully benefit from the vaccine. This is because the immune response is best when the vaccine is given as recommended.

For instance, the minimum recommended age for measles, mumps and rubella (MMR) vaccine is 12 months. The second MMR dose must be given a minimum of 4 weeks after the first dose. Any dose administered prior to the first birthday or any second dose administered less than 4 weeks from the first is considered invalid by the ACIP. Revaccination is recommended when this occurs.

One of the more common errors that providers make is not following the minimum age and minimum interval guidelines. This presents a problem when a child enters school since doses...
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Cats become infected by wildlife, primarily raccoons, and account for approximately 90% of the domestic animal cases since the raccoon virus variant was first identified in the state in 1989. Cats, particularly free-roaming cats, are considered the terrestrial animal species of highest risk to transmit the disease to humans due to the close contact that people frequently have with cats. There were 22 rabid cats identified in 2011, compared with 17 in 2010 and 12 in 2009. Accordingly, the NJDHSS recommends that local public health and animal control agencies focus rabies prevention and vaccination efforts on cats. Educational efforts should target persons who provide care for free-roaming cats. Health care providers should critically evaluate cat bites and other potential rabies exposures and provide prompt post-exposure prophylaxis (PEP) to patients meeting the criteria for treatment. Guidance on PEP is available on the NJDHSS website: http://www.state.nj.us/health/cd/rabies/techinfo.shtml.

A limited supply of rabies education brochures are available. To request, please call 609-826-5964.

Refugee Program Hosts UMDNJ Students

By: Anne Fox, Refugee Health Coordinator

The New Jersey Department of Health and Senior Services, Communicable Disease Service is home to the Refugee Health Program. The major goal of the program is to ensure that newly settled refugees and asylees receive a health assessment within 90 days of arrival. This initial assessment protects the public’s health against communicable diseases and identifies health conditions requiring treatment.

Refugees and asylees cannot return to their country of origin or last residence because of persecution due to race, nationality, membership in a particular social group or political opinion. The Refugee Health Program partners with Voluntary Refugee Resettlement agencies, the Federally Qualified Healthcare Centers and community organizations to provide health screening and social services to ensure successful resettlement.

Anne Fox, Refugee Health Coordinator, is currently serving as a site preceptor to two Iraqi immigrants who are completing their fieldwork and research projects for their Master of Public Health degree.

Ghazwan Maqor, MD is a physician specializing in pediatrics with extensive hospital-based experience in Iraq. His project is focused on evaluating the health assessments provided to refugee children and identifying challenges and barriers to comprehensive services.

Abdul Kareem Al Obaidi, MD is also an Iraqi physician and is working on a project that focuses on mental health services provided for newly arrived refugees in New Jersey. Dr. Al Obaidi is specifically exploring barriers to accessing mental health care services in New Jersey, with the goal of incorporating a mental health assessment within the initial health care survey for this community.

Information provided by both these projects will assist the Refugee Health Program to improve mental health and pediatric services provided to the refugee/asylee population.
of vaccine that were not administered in accordance with ACIP recommendations would be considered invalid. The school and local health department reviewing the vaccination record would then require the child to be revaccinated. The ACIP permits a four-day grace period when evaluating immunization records. The New Jersey Department of Health and Senior Services (NJDHSS) has adopted the ACIP-recommended four-day grace period in N.J.A.C. 8:57-4, Immunization of Pupils in Schools. Providers should be aware of this ACIP recommendation and the NJDHSS regulation when scheduling and administering vaccinations.

Here are some common questions and answers that are available through the Immunization Action Coalition website at www.immunize.org.

**What is meant by "minimum intervals" between vaccine doses?**

Vaccination schedules are generally determined by clinical trials, usually prior to licensure of the vaccine. The spacing of doses in the clinical trial usually becomes the recommended schedule. A "minimum interval" is shorter than the recommended interval, and is the shortest time between two doses of a vaccine series in which an adequate response to the second dose can be expected. The concern is that a dose given too soon after the previous dose may reduce the response. The minimum spacing between doses is generally included in the ACIP recommendation for that vaccine which can be found at www.cdc.gov/vaccines/pubs/ACIP-list.htm. In addition, an extensive listing of recommended and minimum intervals and ages for vaccination can be found at www.cdc.gov/vaccines/pubs/pink-book/downloads/appendices/A/age-interval-table.pdf.

**If two live virus vaccines are inadvertently given less than four weeks apart, what should be done?**

If two live virus vaccines are administered less than four weeks apart and not on the same day, the vaccine given second should be considered invalid and repeated. The repeat dose should be administered at least four weeks after the invalid dose. Alternatively, one can perform serologic testing to check for immunity, but this option may be more costly.

**We gave a dose of vaccine too soon after the previous dose. When can we give another (valid) dose?**

ACIP allows a grace period of four days (i.e., vaccine doses administered up to four days before the recommended minimum interval or age can be counted as valid). However, if a dose was administered five or more days earlier than the recommended minimum interval between doses, it is not valid and must be repeated. The repeat dose should be spaced after the invalid dose by the recommended minimum interval.

Likewise, doses administered five or more days before the minimum age should be repeated on or after the pa-
tient reaches the minimum age and four or more weeks after the invalid dose.

What should we do if we give a dose of vaccine at less than the minimum interval since the previous dose?

If vaccines are given too close together (or to a child younger than the minimum recommended age), it can result in a less than optimal immune response. However, in most instances, a difference of a few days is unlikely to have a negative effect on immune response. With the exception of rabies vaccine, CDC recommends that vaccine doses given four or fewer days before the minimum interval or age be counted as valid, unless local or state requirements specify otherwise. If the dose needs to be repeated, the repeat dose should be spaced after the invalid dose by the recommended minimum interval.

We sometimes have differences of opinion among our staff in determining the minimum interval or age for administering vaccines. Recommendations are sometimes written in months, weeks, or days. Can you help clarify?

This is a common source of frustration. Customarily, if the dosing interval is four months or more, it is common to use calendar months (e.g., six months from October 1 is April 1). If the interval is less than four months, it is common to convert months into days or weeks (e.g., one month = four weeks = 28 days).

What is the four-day "grace period" for vaccine administration and when can I use it?

Since 2002, in an effort to increase the flexibility of the complicated childhood and adult immunization schedules, ACIP recommends that vaccine doses administered up to four days before the minimum interval or age can be counted as valid. ACIP believes that administering a dose a few days earlier than the minimum interval or age is unlikely to have a significant negative effect on the immune response to that dose.

The four-day "grace period" should not be used when scheduling future vaccination visits, and should not be applied to the 28-day interval between live parenteral vaccines not administered at the same visit. It should be used primarily when reviewing vaccination records (for example, when evaluating a vaccination record prior to entry to daycare or school).

Is it necessary to start a vaccine series over if a patient doesn't come back for a dose at the recommended time, even if there's been a year or more delay?

For routinely administered vaccines, there is no vaccine series that needs to be restarted because of an interval that is longer than recommended. In certain circumstances, oral typhoid vaccine (which is sometimes given for international travel) needs to be restarted if the vaccine series isn't completed within the recommended time frame.
New Jersey Injection Safety Ambassadors

On January 18, 2012 the NJ Injection Safety Team developed a pilot program to train professionals to be “Injection Safety Ambassadors.” The purpose of the program was to train others to spread safe injection messages throughout the state. Ambassadors will promote safe injection practices and give lectures to healthcare professionals in a variety of settings, such as long term care, dialysis, and ambulatory surgery centers.

Participation was by invitation only and attendees were required to have a background in infection control and/or nursing. The first group of ambassadors included representatives from both northern and southern chapters of Association for Professionals in Infection Control (APIC), infection prevention consultants, surgery center directors and public health. All were required to attend the workshop, pass a qualifying exam and agree to provide two presentations within one year of being trained.

A total of 26 Injection Safety Ambassadors were trained and received slides and other materials.

The Injection Safety Ambassador program is part of New Jersey’s safe injection practices initiative, funded by the Centers for Disease Control and Prevention.

Two members of the NJDHSS training team, Barbara Montana and Barbara Carothers with ambassador Carol Genese.
The New Jersey Department of Health and Senior Services (NJDHSS), Communicable Disease Service (CDS) has received continued funding by the Centers for Disease Control and Prevention for programmatic support through the Epidemiology and Laboratory Capacity grant. Get Smart About Antibiotics is a national campaign to raise awareness of appropriate antibiotic use among health care professionals who do the prescribing, and the general public who consume the antibiotics. Antibiotic resistance is a growing health threat and there are strategies to enhance appropriate prescribing and use of these life-saving drugs.

For 2012, the CDS will be undertaking a multi-faceted approach which includes increasing the amount of education conducted with health care professionals through conference presentations, displays and grand rounds visits with major medical centers throughout the state. There will also be a public health detailing project where a NJDHSS employee will visit a medical practice to deliver public health messages regarding appropriate prescribing. This approach is similar to that used by pharmaceutical companies in conducting face-to-face visits in physician offices in order to promote their products. Our approach will focus on delivering public health information. Additionally, a new web-based continuing medical education module has been launched. Developed jointly with the University of Medicine and Dentistry of New Jersey, the CME modules provide a convenient opportunity for health care professionals to participate in an interactive learning experience while earning CME credits. The modules can be accessed at: http://ccoe.umdnj.edu/GetSmartNJ/.

If you would like public education materials on proper antibiotic use, please contact Suzanne Miro at Suzanne.miro@doh.state.nj.us. Supplies are limited and available on a first come, first served basis. ♫
International Institute of New Jersey has opened a satellite office at 186 South Broad Street in downtown Trenton and has started working with schools, churches and community organizations as well as individual families to address refugee issues in the city. Questions can be directed to Khin Myazin at 609-358-0300 or by email at kmyazin@iinj.org. Multilingual health information for refugees/immigrants and their health care providers can be obtained from the Refugee Health Information Network at www.rhin.org.