

The Pump Handle



"I had an interview with the Board of Guardians of St. James's parish, on the evening of Thursday, 7th September, and represented the above circumstances to them. In consequence of what I said, the handle of the pump was removed on the following day."

John Snow, 1855

September 2012 Topics

- Rehabilitating Wild Animals = Risk for Rabies
- Immunization Clinics
- Pertussis Cases Reported in North Dakota
- Timely Response to Blood or Bodily Fluid Exposures
- West Nile Virus Update



Rehabilitating Wild Animals = Risk for Rabies

At the end of September, the North Dakota Game and Fish Department notified the North Dakota Department of Health (NDDoH) of a family that had taken in an injured bat and was looking for a place where the bat could go until it had healed. The North Dakota Game and Fish Department and the NDDoH agreed that the bat should be euthanized and tested for rabies instead of rehabilitated because the family had contact with the bat and therefore was at risk for a possible rabies exposure. The North Dakota Game and Fish Department was able to procure the bat and deliver it to the NDDoH laboratory where it was tested for rabies. Luckily, the bat tested negative for rabies and post-exposure prophylaxis was not recommended for the family.

Bats are increasingly implicated as important wildlife reservoirs for variants of rabies virus transmitted to humans. Rabid bats have been documented in all 49 continental states. As of Sept. 1, 2012, two bats have tested positive for rabies in North Dakota this year. Bats, as all wild animals, should not be handled or kept as pets. If a wild animal is injured, it should not be taken in by individuals for rehabilitation. A wild animal may become injured fighting another animal that may have rabies, therefore

putting the animal at risk of developing the disease itself. By taking in any wild animal, especially if injured, you put yourself and your family at risk for rabies. If you have had contact with a bat or other wild animal, you should contact a health-care provider. Call the North Dakota Department of Health, Division of Disease Control, at 1.800.472.2180 with any questions about risks or recommendations for rabies.



Immunization Clinics

With the population in the western part of North Dakota continually on the rise, along with the number of children attending school, there is an opportunity for increased exposure to many communicable diseases such as whooping cough and measles. In order to safeguard our children against these diseases, and protect their long-term health, it is important to make sure they are up-to-date on their state-required immunizations.



To help assist with this urgent need, two of three immunization clinics have been held in Watford City and Williston. As a result of efforts by the North Dakota Department of Health, local public health departments and local health-care providers, over 100 children were vaccinated against vaccine preventable diseases. The final immunization clinic will be Friday, October 12th at the Watford City Elementary School from 11 a.m. to 6 p.m., and Saturday, October 13th at the Williston Fairgrounds from 10 a.m. to 4 p.m. In addition to offering vaccinations for all school-aged children, flu vaccine will be available for everyone, including adults. No appointment is necessary, but parents should bring their child's vaccination record and insurance information.

For more information on the clinics, or where to access immunization records, please visit www.ndhealth.gov/Immunize/EPR_Clinics/.



Pertussis Cases Reported in North Dakota

Since the beginning of 2012, 144 new cases of pertussis have been reported to the North Dakota Department of Health (NDDoH). Of these, 85 are laboratory confirmed and 51 are epidemiologically linked to confirmed cases. These cases have occurred in 23 counties throughout the state.

Pertussis Symptoms:

Pertussis is a serious disease that can lead to pneumonia, encephalopathy or death in infants and unvaccinated children. Adults, teens and vaccinated children often have mild symptoms that mimic bronchitis or asthma. Adults and adolescents are usually the source of the disease in infants. The NDDoH would like to remind providers to consider pertussis as a differential diagnosis in patients presenting with the following symptoms:

- Prolonged cough
- Cough with paroxysms (uncontrollable bursts of coughing)
- Whoop
- Post-tussive gagging/vomiting

People presenting with the above symptoms should be considered as presumptive pertussis cases and should be treated and advised to stay home until after five days of antibiotics or until pertussis has been ruled out. All suspect and confirmed cases of pertussis should be reported to the NDDoH immediately.

Vaccine:

Diphtheria, tetanus and a cellular pertussis vaccine (DTaP) should be administered routinely to infants at 2, 4, 6 and 15 to 18 months of age and a booster dose of DTaP should be given at 4 to 6 years of age. DTaP is required to attend school and day care. Pertussis outbreaks highlight the need for pertussis vaccination in adults and adolescents. Tetanus, diphtheria and a cellular pertussis vaccine (Tdap) is routinely recommended for adolescents 11 to 12 years of age. Tdap is required to be administered to all adolescents entering middle school. Adolescents 13 to 18 years of age and adults also are recommended to receive a dose of Tdap.

For more information, please contact the NDDoH Immunization Program at 701.328.2378 or toll-free at 1.800.472.2180.



Timely Response to Blood or Bodily Fluid Exposures

Recently, the Division of Disease Control assisted in the investigation of an incident involving exposure to blood at a North Dakota high school. Several students were poked with the same pins that resulted in blood contaminated pins being shared among several students. Because of timely reporting by parents, testing and appropriate precautions were taken including recommending vaccination for those not protected against hepatitis B. Although this situation was unlikely to present a high risk of transmission of blood borne pathogens, because of the blood exposure the necessary precautions still needed to be taken.

Exposures to blood or other body fluids can occur in workplace settings, schools, homes and many other locations. It is important to remember that regardless of the level of risk of bloodborne pathogen transmission, preventive measures due to an exposure to blood or bodily fluids need to be done in a timely and efficient manner. Following an exposure, there are several steps to ensure proper precautions are taken to protect the exposed individual against bloodborne infections. The following steps are adapted from materials produced by the Mountain Plains AIDS Education and Training Center (www.mpaetc.org/scripts/prodList.asp):

1. **Treat the exposure site.** The first step following an exposure is to clean and wash potentially infectious fluids from the exposed area.
2. **Report and Document.** All exposures should be reported immediately, including detailed information on the incident.
3. **Evaluate the exposure.** The exposure should be evaluated for potential to transmit hepatitis B (HBV), hepatitis C (HCV) and HIV based on the type of body substance involved, the route and the severity of exposure.
4. **Evaluate the exposure source.** Depending on whether or not the HBV, HCV and HIV status of the exposure is known, testing recommendations following the exposure can be determined.
5. **Disease-specific post-exposure prophylaxis (PEP) management.** Baseline testing should be conducted based on the status of exposure source. Also, hepatitis B vaccination or HIV antivirals may be recommended based on the specific exposure. It is important to remember that PEP for HIV should begin no later than 72 hours and HBV PEP should be initiated within seven days following the exposure.
6. **Follow-up.** Based on exposure source; HBV, HCV and HIV status; as well as PEP; further testing may be recommended.

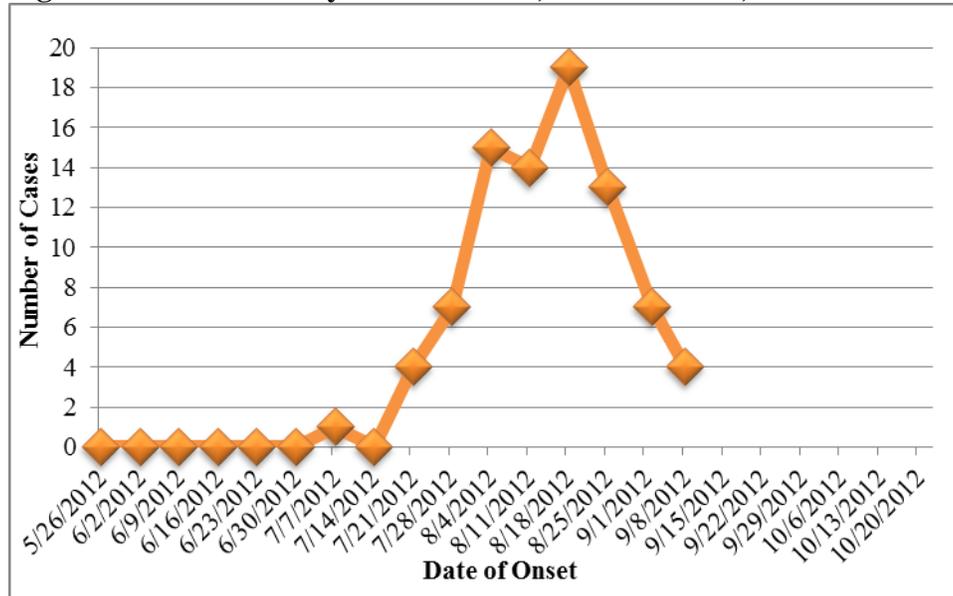
A fact sheet on blood or bodily fluid exposures is available at www.ndhealth.gov/Disease/faq/Faqs.aspx. If there are questions on blood or bodily fluid exposures, call the Division of Disease Control at 701.328.2378 or 1.800.472.2180.



West Nile Virus Update

As of Oct. 9, 2012, 84 human West Nile virus (WNV) infections from 25 counties have been reported to the North Dakota Department of Health (NDDoH). Of these WNV infections, 35 (42%) were neuroinvasive cases. North Dakota has one of the highest incidences of neuroinvasive disease, with 5.2 cases per every 100,000 people. The third week in August is when North Dakota reached its peak of cases, with 19 cases reported to the NDDoH that week (**Figure 1**).

Figure 1. WNV Cases by Date of Onset, North Dakota, 2012



Nationwide there have been 3,969 human WNV infections from 48 states as of Oct. 2, 2012. Of these, 2,010 (51%) were classified as neuroinvasive disease. There have been 163 deaths reported to the Centers for Disease Control and Prevention (CDC).

In addition to the 84 human cases in North Dakota, 14 horses, 2 birds and 1 dog from 14 counties have also tested positive for WNV.

The cooler weather typically means lower numbers of mosquitoes; however, until there is a good, hard frost, the risk of WNV infection is still a possibility. Insect repellent and protective clothing should be used, especially if outdoors between dusk and dawn and when participating in fall sporting activities, farming, hunting or other outdoor activities.

Contributing authors of The Pump Handle include Alicia Lepp, Diana Boothe, Amy Schwartz, Sarah Weninger, Tracy Miller and Kirby Kruger. For questions, suggestions or inquiries, or to be removed from the mailing list, please contact Sarah Weninger of the Division of Disease Control, at 701.328.2366 or by e-mail at sweninger@nd.gov.

The pump handle picture in the title was obtained from the website www.ph.ucla.edu/epi/snow.html.



Terry Dwelle, MD, MPHTM, State Health Officer
Kirby Kruger, Director, Division of Disease Control; Chief Medical Services Section
Tracy K. Miller, MPH, State Epidemiologist