

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

February 2008 Topics

- Influenza Update
- Ciprofloxacin-Resistant *Neisseria meningitidis* in North Dakota
- Giardiasis Reported in Puppies
- Animal Bite Guidelines 



Influenza Update

As of Feb. 26, 2008, a total of 1,463 laboratory-identified influenza cases have been reported to the North Dakota Department of Health (NDDoH) from 50 out of the 53 counties in the state. Of the 1,463 reported cases, 80 percent were identified as type A (n=1,171), 17 percent as type B (n=250) and 3 percent unknown type (n=42). In addition, of the 1,171 influenza A cases, nine have been sub-typed and identified as type A H1.

Nationally, influenza virus characterization at the Centers for Disease Control and Prevention (CDC) indicates that the match between the vaccine strains and the circulating strains may not be optimal. Two of the three vaccine strains are not an exact match, meaning the vaccine's effectiveness against these two strains is not ideal. However, the vaccine can still offer some cross-protection against these different, yet related, influenza viruses. More information concerning vaccine effectiveness can be viewed on the CDC website at www.cdc.gov/flu/about/qa/season.htm.

For more information about influenza, influenza activity or to order educational materials free-of-charge, visit the NDDoH Influenza website at www.ndflu.com.



Ciprofloxacin-Resistant *Neisseria meningitidis* in North Dakota

In January 2007, a case of *Neisseria meningitidis* group B occurred in a Cass County resident. The case presented with high fever and petechial rash, was hospitalized and treated with intravenous ceftriaxone. The case recovered.

The NDDoH Division of Laboratory Services found the case to be resistant to ciprofloxacin. The CDC confirmed these laboratory results. Close contacts to this case that were originally prescribed ciprofloxacin were notified and placed on other appropriate antibiotics. Rifampicin is commonly used as chemoprophylaxis to eradicate meningococcal carriage. However, there is a tendency to replace rifampicin by ciprofloxacin in adults, because rifampicin requires twice-daily administration for two days in comparison to a single dose of ciprofloxacin.¹ The following link contains information regarding chemoprophylaxis for meningococcal disease and updated recommendations for eastern North Dakota and western Minnesota:
www.ndhealth.gov/Immunize/Documents/Disease/Chemoprophylaxis_of_Meningococcal.pdf.

This is the first case of ciprofloxacin-resistant *N. meningitidis* in the United States and the third case in the western hemisphere. DNA sequencing indicates that the isolate is similar to isolates sequenced in other countries. The first documented resistance to ciprofloxacin in *N. meningitidis* was reported in 1992 from Greece.² Five reports of sporadic instances of decreased susceptibility to ciprofloxacin have occurred recently: serogroup B from France in 1999 and Spain in 2002; serogroup C from Australia in 1998; serogroup Y from Argentina in 2002; and serogroup A from India in 2005.³ The NDDoH is working with CDC to further investigate this case to determine its origin.

Meningococcal meningitis is spread by direct contact with respiratory droplets from the nose and mouth of infected people. The incubation period for meningococcal disease may range from one to 10 days, but usually occurs less than four days after exposure. Some people carry the bacteria in their nasal passages but do not get sick, yet they can still spread the bacteria to others. Prophylactic antibiotics will clear this carrier state. Meningococcal conjugate vaccine (Menactra®) is routinely recommended for adolescents ages 11 through 18 and others at high-risk, including college freshmen living in dormitories. The Food and Drug Administration recently approved the use of Menactra® in people as young as 2, so the vaccine is now licensed for people ages 2 through 55. The vaccine doesn't protect against Group B meningococcal disease. Beginning with the 2008-2009 school year, meningococcal vaccine will be required for middle school entry into North Dakota schools.

For more information about meningococcal disease, vaccination or chemoprophylaxis, visit:
www.cdc.gov/mmwr/preview/mmwrhtml/rr5407a1.htm.

References:

1. Corso, Alejandra, Et al. Emergence of *Neisseria meningitidis* with decreased susceptibility to ciprofloxacin in Argentina. *Journal of Antimicrobial Chemotherapy*. 2005;22:596-597.
2. Mehta, Geeta, Goyal, Renu. Emerging fluoroquinolone resistance in *Neisseria meningitidis* in India: cause for concern. *Journal of Antimicrobial Chemotherapy*. 2007;59:329-330.
3. Singhal, Smita, Et al. Ciprofloxacin-Resistant *Neisseria meningitidis*, Delhi, India. *Emerging Infectious Diseases*. 2007;13(10):1614-1616.



Giardiasis Reported in Puppies

Recently, the NDDoH has received several phone calls from dog owners reporting newly purchased puppies becoming ill with giardiasis. The majority of complainants purchased the puppies at local pet stores. The NDDoH is working with the North Dakota State Board of Animal Health and local veterinarians to initiate enhanced surveillance for dog owners that may become ill from sick puppies.

Giardia is a one-celled, microscopic parasite that lives in the intestine of infected people and animals and is passed in the stool. The most common symptoms are diarrhea, stomach cramps, upset stomach or nausea, bloating, increased gas, weakness, loss of appetite and weight loss.

Giardia is often spread by accidentally putting something in your mouth or swallowing something that has come into contact with feces of an infected person or animal. *Giardia* parasites have been found in the stools of many animals, including rodents, dogs, cats, cattle and wild animals. Swallowing water contaminated with *Giardia* also is a common source of the disease.

To report a case of giardiasis to the NDDoH, call 701.328.2378 or toll free at 800.427.2160.



Animal Bite Guidelines

The NDDoH Division of Disease Control, in conjunction with the Division of Laboratory Services and State Board of Animal Health, has developed veterinarian reporting guidelines regarding rabies exposures and animal bites. These guidelines will be distributed to all veterinarians licensed in North Dakota. The guidelines address exposures, animal quarantines, specimen submission and testing and can be viewed on the NDDoH rabies website at www.health.state.nd.us/disease/Rabies/Publications.htm.

The Division of Disease Control has also developed guidance for law enforcement officials who are investigating animal bites. The guidance covers bites from domestic dogs, cats and ferrets, as well as bites from other species. In addition, the guidance provides information about laboratory testing and reporting. Guidelines for law enforcement are available at www.health.state.nd.us/disease/Rabies/Publications.htm. For questions about rabies, call the NDDoH at 800.472.2180.

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



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