

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

May 2006 Topics

- Foodborne Illness
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- Rabies Update



Foodborne Illness

Foodborne outbreaks are common during the summer months. In 2005, the North Dakota Department of Health (NDDoH) investigated five foodborne outbreaks affecting more than 90 individuals. All occurred between the months of April and August. Common agents that cause foodborne illness include *Campylobacter*, *E.coli* O157:H7, *Salmonella*, *Shigella* and norovirus.

Physicians and other health-care professionals have a critical role in the prevention and control of foodborne disease. If any of the following signs and symptoms occurs in patients, either alone or in combination, laboratory testing may provide important diagnostic clues. (Particular attention should be given to very young and elderly patients and to immunocompromised patients, all of whom are more vulnerable.):

- Diarrhea (three or more unformed stools per day)
- Bloody diarrhea
- Fever
- Neurologic involvement, such as paresthesias, motor weakness, cranial nerve palsies
- Sudden onset of nausea and vomiting
- Severe abdominal pain

A foodborne disease outbreak should be reported if two or more patients with symptoms suggestive of foodborne illness are found to have ingested a common food or meal. Obtaining stool specimens and timely reporting to appropriate authorities are important factors in identifying and preventing further spread of foodborne illness. To report foodborne illnesses, contact the NDDoH at 701.328.2378 or toll free at 800.472.2180.



Hantavirus

Hantavirus pulmonary syndrome (HPS) is a viral infection that causes severe lung disease. The virus can be transmitted through mouse saliva, urine and fecal droppings. HPS is not transmitted from person to person. People may increase their risk when cleaning out summer cabins or storage bins that have become infested by rodents during the off season.

Symptoms of HPS usually occur two to three weeks after exposure. Early symptoms commonly include fever, muscle and body aches, fatigue, headache, dizziness, chills, nausea and vomiting. The illness worsens within a short period of time to include cough and severe shortness of breath when lungs fill with fluid.

Eight cases of HPS have been reported to the NDDoH since 1993; the most recent was reported in January 2006. Four of the cases were fatal. Nationwide, 416 cases have been reported since 1993, of which 150 were fatal.

HPS is prevented by taking precautions against rodent infestation and ensuring proper disinfection:

- Fill any holes in your home or cabin that you can place your finger into.
- Clean droppings or urine with 1 ½ cups chlorine bleach to one gallon water.
- Wear rubber gloves while cleaning.
- Do not vacuum or sweep to avoid making virus-containing particles airborne.
- For heavy rodent infestation, contact your state or local public health department.

For more information, call the North Dakota Department of Health at 800.472.2180.



Ticks and Tick-borne Diseases

The tick season in North Dakota has arrived. Areas that are heavily wooded, have tall grass or have brush are more likely to be tick infested, especially between April and September, with the highest risk of disease transmission during the warmer months.

The North Dakota Department of Health offers the following tips for making it difficult for ticks to make contact with your skin:

- Wear light-colored clothing to make the ticks easier to see.
- Wear long pants and tuck the legs into your socks or boots.
- Keep your shirt tucked in.
- Apply insect repellent that contains DEET to your clothes and skin.

After leaving a tick-infested area, it's important to remove and wash all clothing as soon as possible. Also, carefully check for ticks and use tweezers to remove any that have attached to your body. The best way to remove a tick is to grasp it with tweezers as close as possible to the head and gently tug until it is free. Make sure to wash your hands and the site of tick attachment with soap and water after tick removal.

Since 2000, four cases of tularemia, two cases of Rocky Mountain spotted fever and four cases of Lyme disease were reported in North Dakota. The most common tick in North Dakota is the dog tick (*Dermacentor variabilis*), associated with the transmission of Rocky Mountain spotted fever and tularemia. The deer tick, commonly associated with Lyme disease, rarely has been identified in the state, and the human cases reported have all had a history of out-of-state travel.

For more information, contact the North Dakota Department of Health at 800.472.2180.



Rabies Update

As of May 31, 2006, 13 animals have tested positive for rabies in North Dakota, compared to 17 testing positive last year at this time.

Animal Type	Number Positive*	
	2006	2005
Bat	1	0
Cat	0	3
Cow	2	1
Dog	3	1
Skunk	7	12
Total	13	17

*Year-to-date data

The Division of Microbiology provides free rabies testing on animals if human exposure to the animal has occurred. **An exposure is defined as a bite that breaks the skin or saliva that comes in contact with an open cut, sore or wound or to a mucous membrane such as the mouth, nose or eyes.** If there has been no human exposure, samples for animal rabies testing should be sent to the North Dakota Veterinary Diagnostic Laboratory at North Dakota State University.

Post-exposure prophylaxis (PEP) may be required for humans who experience an animal exposure. If the exposure involves a wild carnivorous animal or a bat that is unavailable to be tested, the person should receive PEP. Depending on the circumstances, PEP may be deferred if the animal is available for prompt testing.

If a person is bitten by a dog, cat or domestic ferret with no or delinquent vaccination history, the animal should be evaluated by a veterinarian to confirm that it is healthy. The animal should be confined and observed daily for 10 days. If there is no change in the animal's health during the 10-day confinement, which is verified by a veterinarian, the animal can be released and PEP does not need to be initiated or can be discontinued if it had been initiated. Unwanted animals may be euthanized and tested.

If an unvaccinated dog, cat or ferret is exposed to a wild carnivorous animal or a bat, it should be euthanized immediately. **Rabies exposure can be reduced by properly vaccinating pets.**

An algorithm to help determine appropriate actions to follow when an exposure to an animal has occurred can be viewed at

www.health.state.nd.us/disease/Rabies/RabiesPublications.htm.

Contributing authors of The Pump Handle include Julie Goplin, Tracy Miller and Kirby Kruger. For questions, suggestions or inquiries, or to be removed from the mailing list, please contact Julie Goplin of the Division of Disease Control at 701.328.2375 or by email at jgoplin@state.nd.us.

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



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