

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

August 2012 Topics

- All Baby Boomers are Recommended to be Screened for Hepatitis C
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All Baby Boomers are Recommended to be Screened for Hepatitis C

Hepatitis C virus (HCV) is an increasing cause of morbidity and mortality in the United States. As many as 75 percent of those infected with HCV are unaware of their infection and do not receive needed medical care. The Centers for Disease Control and Prevention (CDC) estimates that although people born during 1945–1965 comprise an estimated 27 percent of the population, they account for approximately three-fourths of all HCV infections in the United States, 73 percent of HCV-associated mortality, and are at greatest risk for hepatocellular carcinoma and other HCV-related liver disease.

CDC is recommending one-time testing for HCV for people born during 1945-1965 without an assessment of risk factors. Because of new therapies that have been developed to stop disease progression and can result in viral clearance, targeted testing and linkage to care for infected persons in this birth cohort is expected to reduce HCV-related morbidity and mortality. This screening recommendation aims to increase the number of people who become aware of their infection and are referred for care and treatment.

People identified as having HCV infection should receive a brief screening for alcohol use and intervention as clinically indicated, followed by referral to appropriate care for HCV infection and related conditions. These recommendations do not replace previous guidelines for HCV testing that are based on known risk factors and clinical indications. Rather, they define an additional target population for testing: people born during 1945-1965.

For more information on hepatitis C or to review the complete recommendations, visit www.cdc.gov/hepatitis/HCV/index.htm.



Three Cases of Post-Diarrheal Hemolytic Uremic Syndrome

Three cases of hemolytic uremic syndrome (HUS) have been reported to the North Dakota Department of Health (NDDoH) so far this year. In the past five years, only four cases have been reported. The patients were all younger than five and were hospitalized presenting with acute renal dysfunction and a history of diarrhea. Lab results for patient A were positive for *E. coli* 0157:H7 and for patient B were positive for shiga-toxin producing *E. coli* (non-0157). A stool sample was unable to be collected for testing for patient C, although the patient had a history of diarrheal illness a week before hospitalization for HUS. All three patients have been discharged from the hospital and are recovering.

HUS is a serious complication of shiga-toxin producing *E. coli* (STEC) infections, in which the red blood cells are destroyed and the kidneys may fail. About 2 percent to 7 percent of STEC infections lead to HUS complications. Children younger than five and the elderly are at greatest risk for developing HUS. The illness typically develops seven days after onset of diarrhea and is a life-threatening condition. More than 50 percent of children require dialysis, and 3 percent to 5 percent die. Early recognition of HUS and intensive care is important in preventing life-long complications or death.

Reasonable concern exists that some antimicrobial agents increase the risk of HUS. Most experts advise not prescribing antimicrobial therapy for STEC infection, because no benefit has been proven and harm is possible.

The NDDoH offers the following tips to prevent STEC infections:

- All ground and mechanically tenderized meat should be cooked thoroughly until no pink meat remains and the juices are clear or to an internal temperature of 160°F.
- Do not consume raw milk and unpasteurized apple juice and cider.
- People with diarrhea should not use recreational water venues until two weeks after symptoms resolve.
- Children with STEC infections should not return to child care until diarrhea has resolved and two consecutive stool cultures are negative for STEC.
- Wash hands before and after preparing food and after handling uncooked eggs, raw meat, poultry, seafood or their juices. Wash surfaces and utensils after each use.
- Wash fruits and veggies.

- Use separate cutting boards, plates and utensils for raw produce and for raw meat, poultry, seafood and eggs. Keep meat, poultry, seafood and eggs separate from all other foods while you're shopping and in the refrigerator.



West Nile Virus Update

As of September 5, 2012, 53 human West Nile virus (WNV) infections have been reported to the North Dakota Department of Health from a total of 18 counties. This is the greatest number of WNV cases reported in North Dakota since 2007, when 320 WNV infections were reported.

Twenty-two of the cases have been hospitalized. Twenty-one of the 53 cases (40%) have experienced neuroinvasive disease, in which a person's nervous system is affected and is the most severe form of the disease. No WNV-related human deaths have been reported in North Dakota.

Additional WNV activity includes 17 asymptomatic blood donors from 11 counties, 12 positive horses from 10 counties and two positive birds from two counties.

Nationwide, 1,993 cases have been reported to CDC as of September 4, 2012. This is the highest number of WNV disease reported to CDC through the first week of September since WNV was first detected in the U.S. in 1999. Of the 1,993 cases, 1,069 (54%) were classified as neuroinvasive disease. Eighty-seven WNV-related human deaths have been reported.

West Nile virus activity is updated Wednesday morning each week on the North Dakota Department of Health website at www.ndhealth.gov/wnv.



World Rabies Day is September 28, 2012

In observance of World Rabies Day 2012, the NDDoH is encouraging people to begin to take the steps to keep yourself and your family free from rabies. Every year, an estimated 40,000 people in the United States receive a series of post-exposure prophylaxis due to potential exposure to rabies. People can easily take steps to help prevent and control rabies.

- Keep pets up-to-date on vaccinations. Keeping pets current on their rabies vaccinations not only helps to make sure that they are free from rabies, but also reduces the risk of exposure for humans.
- Avoid contact with wild animals or unfamiliar animals. Do not feed or handle them, even if they look friendly. Teach children to never handle wild or unfamiliar domestic animals.
- Do not feed or put water for your pets outside and keep garbage securely covered. These items may attract wild or stray animals to your yard.
- Take steps to "bat-proof" your home. Visit www.cdc.gov/rabies/bats/management/index.html to learn tips on how to prevent bats from entering your home.

Rabies poses a serious threat to human and animal health. If untreated, rabies is almost always fatal. However, it is 100 percent preventable. For more information

about rabies, please visit the NDDoH rabies website at www.ndhealth.gov/disease/Rabies/.



Influenza A H3N2 Variant Viruses (H3N2v)

Seasonal influenza A H3N2 viruses are human influenza viruses that circulate among people each influenza season in the United States. Influenza A H3N2v are non-human influenza viruses that normally circulate in pigs. When these viruses infect humans, there are called “variant” flu viruses.

In 2011, a small number of humans were found to be infected with this virus (12 cases). In July 2012, outbreaks of human infections with H3N2v influenza were identified in people with exposure to pigs. As of September 7, 2012, 297 human H3N2v infections have been identified in the United States since July 2012. Cases have been reported in 10 states with 16 of the 297 cases hospitalized and one death. Symptoms and severity of H3N2v infections in humans resemble that of seasonal influenza.

North Dakota has not had any reported H3N2v cases and has not had an increase in influenza-like illness reports. The Department of Health is monitoring the situation and is asking providers’ assistance in H3N2v surveillance activities. The following are recommendations to North Dakota providers if patients present to your office with signs or symptoms of influenza:

- Two specimens should be collected. One for rapid identification and the second for culture confirmation.
- A good clinical and risk history should be collected on each patient. Ask patients about any exposure to swine, including visiting agricultural booths at state and local fairs. Include this information in the patient history.
- If submitting samples for influenza testing, contact the Division of Disease Control at 800.472.2180.

For more information about influenza and H3N2v influenza viruses, visit the NDDoH website at www.ndflu.com/h3n2v/.

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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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