



The Pump Handle

January 2019

"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

Topics

- Evaluation of Infants Born to Mothers Positive for Syphilis - Shari Renton
- NDDoH Tick Surveillance Program and Tickborne Diseases in North Dakota - Laura Cronquist
- ND Infection Prevention Conference - Faye Salzer
- New Disease Control Employee



Evaluation of Infants Born to Mothers Positive for Syphilis

The epidemiology of syphilis has shifted in North Dakota and more women of child bearing age being reported., along with increased reports of infant born to infected mothers. Please see the [Health Advisory](#) that was issued July 2018 recommending enhanced screening of pregnant women in North Dakota. Effective prevention of syphilis transmission to neonates (congenital syphilis) depends on the identification and treatment of syphilis in pregnant women. No mother or newborn should be discharged from the hospital without maternal serologic status documented at least once during pregnancy.

The diagnosis of congenital syphilis can be difficult due to the transfer of maternal antibodies through the placenta. All neonates born to mothers who have reactive non-treponemal and treponemal test results should be evaluated with a quantitative non-treponemal serologic test performed on the neonate's serum. The neonates should be examined thoroughly for evidence of congenital syphilis (e.g., nonimmune hydrops,

jaundice, hepatosplenomegaly, rhinitis, skin rash, long bone deformities and pseudoparalysis of an extremity). Diagnosis and treatment decisions must be made based on the identification of syphilis in the mother, adequacy of maternal treatment, presence of clinical, laboratory or radiographic evidence of syphilis, and comparison of maternal and neonatal non-treponemal serologic titers.

There are four possible outcomes for infants exposed to syphilis:

- Proven or highly probable congenital syphilis
- Possible congenital syphilis
- Less likely congenital syphilis
- Unlikely congenital syphilis

The different treatment and evaluation recommendations for each scenario can be found in the [2015 STD treatment guidelines](#). The NDDoH can assist in verification of treatment and response. For any questions regarding congenital syphilis evaluation and treatment, please contact the NDDoH STD Program at 701.328.2378 or 800.472.2180.



NDDoH Tick Surveillance Program and Tickborne Diseases in North Dakota–

Over 13,000 ticks were submitted to the NDDoH Division of Microbiology during the 2018 tick surveillance season, which spanned from April until November. The current NDDoH Tick Surveillance Program was introduced in 2017 and in 2018 expanded to include additional veterinary clinics and wildlife officials throughout the state. Participants submitted ticks to the NDDoH each week for identification and tickborne pathogen analysis. Most ticks submitted in both 2017 and 2018 were identified as *Dermacentor variabilis*, or American dog ticks. The count of *Ixodes scapularis*, or deer ticks, increased from 22 in 2017, to 51 in 2018 (see map for county submissions). *Amblyomma americanum*, or Lone Star ticks, decreased from two in 2017 (Dunn and Dickey Counties) to one in 2018 (Cass County).

Deer Tick Submissions by County 2018 NDDoH Tick Surveillance Program



Tickborne pathogen analysis was performed on all submitted ticks that were suitable for testing (i.e., not engorged). Ticks were separated by species, and each species pooled together by region, with testing pools containing a maximum of 20 ticks. A total of 188 pools were tested for the following nine pathogens: *Rickettsia* spp., *Rickettsia rickettsii*, *Rickettsia parkeri*, *Francisella tularensis*, *Anaplasma phagocytophilum*, *Babesia microti*, *Borrelia burgdorferi*, Powassan virus, and Colorado tick fever virus. From the 176 American dog tick pools tested, 106 (60%) tested positive for *Rickettsia* spp. and nine (5%) tested positive for *F. tularensis*, whereas of the 12 deer tick pools tested, six (50%) tested positive for *Rickettsia* spp., and one (8%) tested positive for *B. burgdorferi*.

All tickborne diseases must be reported to NDDoH. As of January 16, 2019, 55 tickborne disease cases from 20 counties were reported to the NDDoH in 2018 (all 2018 data are preliminary). Cases reported include anaplasmosis or ehrlichiosis (7), babesiosis (1), Heartland virus (1), Lyme disease (33), Rocky Mountain spotted fever (10), and tularemia (3). Seventeen cases were hospitalized and there have been no deaths reported.

For more information about the NDDoH Tick Surveillance Program or tickborne diseases, please visit www.ndhealth.gov/disease/Tickborne or contact Laura Cronquist at lcronquist@nd.gov or 701.328.2378.



ND Infection Prevention Conference

The ND Infection Prevention Conference will be held March 20-21, 2019 at the Radisson Hotel in Bismarck, ND.

Who should Attend

Infection preventionists and committee members, nurses, environmental services staff, quality improvement, central processing staff and anyone needing infection prevention and control training

Objectives

- Identify important components of a successful infection prevention program
- Evaluate and update protocols for Infection Control Policies & Environmental Services processes
- Evaluate the Respiratory Protection Program and understand the algorithm of Tuberculosis testing
- Analyze reporting capabilities of the ND Infection and Antibiotics Tracking Program
- Examine the role of Infection Prevention during repairs and construction and identify who needs to be immunized
- Discuss the role of Infection Prevention in the operating room and central processing, including high level disinfection and sterilization
- Explore drug resistance and what needs to be done to prevent transmission

Attending this workshop will refresh and expand knowledge on key components to have a successful infection prevention and control program in your healthcare setting, as well as allow you to network with your peers and subject experts.

Critical Access Hospital Sponsorship is being offered by ND CAH Quality Network and travel sponsorships are available through a grant from the ELC program, Division of Disease Control.

For more information on all the topics presented and to register click on the link to the ND IP Conference below

<http://www1.und.edu/academics/extended-learning/conference-services/infection-prevention/>

Here is a link to a video put out by APIC on role of the Infection Preventionist

<https://www.youtube.com/watch?v=5rPk9XhA700>



New Disease Control Employee

Name: Evan Bischoff

Title: West Nile Surveillance Coordinator / Epidemiologist II

Education Background: I received my BS in Human Development & Family Studies at Penn State Harrisburg with a minor in Psychology and earned my MPH at Rutgers School of Public Health.

Past Experience: I worked in environmental health at a water laboratory/consulting facility in Dover, NJ. I served as the compliance manager and had to ensure water systems throughout NJ were following state and EPA regulations.

Family/Hobbies: My entire family resides in NJ or PA (including my 2 great-nephews). I enjoy reading, exploring nature, attending church, and anything related to football.



Kirby Kruger, Director, Division of Disease Control; Chief of Medical Services Section
Molly Howell, MPH, Assistant Director, Division of Disease Control
Evan Bischoff, Managing Editor