

## Maine Health Alert Network (HAN) System

### PUBLIC HEALTH ADVISORY

**To:** All HAN recipients  
**From:** Dr. Siiri Bennett, State Epidemiologist  
**Subject:** **Tickborne Diseases Update – Maine, August 2016**  
**Date / Time:** Tuesday, August 16, 2016 at 1:15pm  
**Pages:** 3  
**Priority:** Normal  
**Message ID:** 2016PHADV025

**Abstract:**

Summer is in full swing; reports of multiple tick-borne diseases, some in record numbers, to Maine CDC are indicating an increase in tick-borne diseases. Physicians have already reported more Anaplasmosis cases so far this year than all of last year, and Babesiosis and Lyme numbers are steadily increasing as well. Providers should be aware of the risk and prevalence of these diseases and consider them in their diagnoses.

**Anaplasmosis:**

- 228 cases reported to date in 2016, compared to 186 in all of 2015
  - 116 cases reported from the Mid Coast region (Knox 49, Lincoln 43, Sagadahoc 18, and Waldo 6)

**Babesiosis:**

- 49 cases have been reported to date in 2016, compared to 55 in all of 2015
  - 13 cases reported from York county, 10 cases from Knox county

## Tickborne Diseases Update – Maine, August 2016

Maine CDC is receiving reports of multiple tick-borne diseases, some in record numbers. Physicians have already reported more anaplasmosis cases so far this year than all of last year, and babesiosis and Lyme numbers are steadily increasing as well. Providers should be aware of the risk and prevalence of these diseases and consider them in their list of possible diagnoses.

### Anaplasmosis:

- Caused by the *Anaplasma phagocytophilum* bacteria, carried by the deer tick (*Ixodes scapularis*)
- Signs and symptoms include: fever, headache, malaise, and body aches. Encephalitis and/or meningitis may occur but is rare
- 228 cases reported to date in 2016, compared to 186 in all of 2015
  - 116 cases reported from the Mid Coast region (Knox 49, Lincoln 43, Sagadahoc 18, and Waldo 6)
- Polymerase Chain Reaction (PCR) is the preferred testing method

### Babesiosis:

- Caused by the *Babesia* parasite, carried by the deer tick (*Ixodes scapularis*)
- Signs and symptoms include: extreme fatigue, aches, fever, chills, sweating, dark urine, and anemia
- 49 cases have been reported to date in 2016, compared to 55 in all of 2015
  - 13 cases reported from York county, 10 cases from Knox county
- PCR or identification of the parasite in a blood smear are the preferred testing methods

### Lyme disease:

- Caused by the *Borrelia burgdorferi* bacteria, carried by the deer tick (*Ixodes scapularis*)
- Signs and symptoms include: erythema migrans rash, fever, headache, joint and muscle pains, fatigue, arthritis, Bell's palsy, meningitis, and carditis
- Lyme disease cases take several months to be entered and classified, so current numbers are not available at this time
- Two tier testing (ELISA or EIA, followed by Western blot) is the preferred testing method

### Powassan:

- Caused by the Powassan virus, carried by the woodchuck tick (*Ixodes cookei*) and potentially by the deer tick (*Ixodes scapularis*)
- Signs and symptoms include: fever, headache, vomiting, weakness, confusion, seizures, and memory loss
- 0 cases have been reported to date in 2016, compared to 1 in all of 2015
- Maine's Health and Environmental Testing Laboratory (HETL) offers PCR testing

**Co-infections:** Because all of these diseases are carried by the same tick (*Ixodes scapularis*), a patient may be infected with more than one disease.

- To date in 2016, eleven co-infections have been reported: four co-infections with anaplasmosis and Lyme disease, two co-infections with babesiosis and Lyme disease, and five co-infections with anaplasmosis and babesiosis.
- In 2015, 22 co-infections were reported: ten co-infections of Lyme disease and anaplasmosis, eight co-infections of Lyme disease and babesiosis, one co-infections of anaplasmosis and

babesiosis, one co-infection of Lyme disease, anaplasmosis, and babesiosis, one co-infection of Lyme disease and ehrlichiosis, and one co-infection of babesiosis and ehrlichiosis.

**Uncommon illnesses:**

- Ehrlichiosis is a bacterial disease, carried by the Lone Star tick which is unusual in Maine, but very common in the southern United States. PCR is the preferred testing method.
- Rocky Mountain Spotted Fever is a bacterial disease carried by multiple ticks. Maine has a tick that is a potential carrier (the dog tick, *Dermacentor variabilis*), but they are not known to be infected in Maine.

**Recommendations for Providers:**

- Consider tick-borne illnesses in your differential, particularly for individuals with “summer flu” symptoms
- Submit samples for testing
- Treat patients appropriately – recommendations for treatment are available from [http://www.idsociety.org/uploadedfiles/idsa/guidelines-patient\\_care/pdf\\_library/lyme%20disease.pdf](http://www.idsociety.org/uploadedfiles/idsa/guidelines-patient_care/pdf_library/lyme%20disease.pdf)
- Report cases. All tick-borne illnesses are reportable in Maine, including the erythema migrans rash which is confirmatory. All cases should be reported by phone to 1-800-821-5821 or by fax to 1-800-293-7534.

**For more information:**

- Maine CDC vectorborne webpages: <http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/vector-borne/index.shtml>
- Maine Physician’s Reference Guide: <http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/vector-borne/documents/tick-reference-guide.pdf>
- Lyme forms for providers: <http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/vector-borne/lyme/index.shtml#resourcephysicians>
- Guidance on treatment: [http://www.idsociety.org/uploadedfiles/idsa/guidelines-patient\\_care/pdf\\_library/lyme%20disease.pdf](http://www.idsociety.org/uploadedfiles/idsa/guidelines-patient_care/pdf_library/lyme%20disease.pdf)
- Lyme disease data: <https://data.mainepublichealth.gov/tracking/home>