

MAINE PUBLIC HEALTH ALERT NETWORK SYSTEM



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****ADVISORY – Important Information****

2014PHADV015

TO: City and County Health, Tribal Health, Summer Camps, County EMA Directors, School Nurses, School-Based Health Centers, Maine EMS, FQHC's, Healthcare, Hospitals, Labs, Maine CDC, Maine Medical Association, Maine Primary Care Association, Physician Practices, Regional Resource Centers

FROM: Dr. Sheila Pinette, Maine CDC Director

SUBJECT: **Tick-borne Diseases Update**

DATE: Thursday, August 7, 2014

TIME: 2:00pm

PAGES: 4

PRIORITY: Normal

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Maine Center for Disease Control and Prevention (Maine CDC)

Tick-borne Diseases Update – Maine, August 2014

Summer is in full swing and the increase in tick-borne diseases demonstrates that. 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 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/ meningitis may occur but is rare
- 98 cases have been reported to date in 2014, compared to 94 in all of 2013
- 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
- 17 cases have been reported to date in 2014, compared to 36 in all of 2013
- 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
- 526 cases have been reported to date in 2014, compared to 1,376 in all of 2013
 - Lyme disease cases take several months to be entered and classified, so although these numbers may seem low they will increase dramatically as reports are received and processed
- 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 2014, compared to 1 in all of 2013
- Testing is performed by federal CDC, samples should be sent to Maine's Health and Environmental Testing Laboratory (HETL) to be forwarded to CDC Fort Collins

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 2014, three co-infections have been reported: two co-infections with anaplasmosis and Lyme disease, and one co-infection with babesiosis and Lyme disease
- In 2013, 16 co-infections were reported: nine co-infections of Lyme disease and anaplasmosis, four co-infections of Lyme disease and babesiosis, two co-infections of anaplasmosis and babesiosis, and one co-infection of Lyme disease, anaplasmosis, and babesiosis

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
- Report cases. All tick-borne illnesses are reportable in Maine, including the erythema migrans rash which is confirmatory. To ease the reporting burden of EM rashes, a registry report option is available (see page 3). 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
- Lyme disease data: <https://data.mainepublichealth.gov/tracking/home>

Lyme Disease EM Reporting - For Use ONLY for presence of *Erythema migrans*

Physician Information:

Name:

Address:

Telephone:

Date	Name	Address	DOB	M/F	Race & Ethnicity	Occupation	Date of Onset	Tick Bite (Y/N)

If you have additional comments, please submit on additional pages. Please Fax Weekly to 1-800-293-7534