



## Information for Providers

Lyme disease continues to be the most common vector borne illness in the United States. The Oswego County Health Department, in conjunction with the New York State Department of Health, reminds physicians and other healthcare providers of the importance of **enhanced clinical surveillance** for early diagnosis of Lyme disease, the need for **medical reporting to the health department of clinical or laboratory diagnosed cases of Lyme disease**, and the important control measure of **patient education** on the prevention of Lyme disease.

### When should a healthcare provider report Lyme disease?

- New York State is listed as a high incidence state according to CDC, therefore the presence of the **erythema migrans rash is diagnostic and must be reported to the county health department**. This characteristic rash presents as an area of erythema **5 cm or greater** in diameter and is usually located near the site of tick attachment. It can infrequently present as several lesions, at sites remote from the tick bite.
- Any patient with **laboratory confirmed Lyme disease** and **either** erythema migrans **or** at least one **late clinical manifestation**. Laboratory diagnosis currently includes demonstration of diagnostic levels of IgM or IgG antibodies to the spirochete in serum or CSF, or a two-test approach using a sensitive enzyme immunoassay or immunofluorescence antibody followed by Western blot.
- Late clinical manifestations may include any of the following when an alternate explanation is not found:
  1. **Musculoskeletal system:** recurrent, brief attacks (weeks or months) of objective joint swelling in one or a few joints, sometimes followed by chronic arthritis in one or a few joints. Manifestations not considered as criteria for diagnosis include chronic progressive arthritis not preceded by brief attacks and chronic symmetrical polyarthritis. Additionally, arthralgia, myalgia, or fibromyalgia syndromes alone are not criteria for musculoskeletal involvement.
  2. **Nervous system:** Lymphocytic meningitis; cranial neuritis, particularly facial palsy (may be bilateral); radiculoneuropathy; or rarely, encephalomyelitis. Encephalomyelitis must be confirmed by showing antibody production against *B. burgdorferi* in the CSF, demonstrated by a higher titer of antibody in CSF than in serum. Headache, fatigue, parasthesia, or mild stiff neck alone are not criteria for neurological involvement.
  3. **Cardiovascular system:** Acute onset, high grade (2<sup>nd</sup> or 3<sup>rd</sup> degree) atrioventricular conduction defects that resolve in days to weeks and are sometimes associated with myocarditis. Palpitations, bradycardia, bundle branch block, or myocarditis alone are not criteria for cardiovascular involvement.

Traditional laboratory diagnostic methods for Lyme disease, consisting of a screening ELISA for antibodies to *B. burgdorferi*, followed by IgM and IgG Western-blot assay on screen positive specimens, continue to have several shortcomings. These include the fact that testing is often negative in early Lyme disease as IgM antibodies do not peak until 3 to 6 weeks after infection, the problem that once elevated, IgM and IgG can remain elevated for indeterminate amounts of time, and false positive tests can occur due to cross reactivity with other antigens, including those found in autoimmune conditions.

**Patient education** remains important in the prevention of Lyme disease. The Arthropod-Borne Disease Program of the New York State Department of Health is offering educational materials free of charge in limited quantities to New York State residents and organizations. Please refer to the "Material Order Form."

For further information on clinical Lyme disease and other tick-borne illnesses, including treatment information, visit <https://www.cdc.gov/lyme/healthcare/index.html>. The New York State Department of Health also has information for providers available online, visit <https://www.health.ny.gov/diseases/communicable/lyme/>. Questions can also be directed to the Oswego County Health Department at (315)349-3547.

To download the Lyme Disease Reporting form please visit: <http://www.oswegocounty.com/health/>

Your efforts in enhanced surveillance and reporting aid the local and state health department. The cooperative engagement of clinicians, public health, and residents of affected communities will make it possible to reduce the incidence of Lyme disease. Thank you for your assistance in this matter.