



COMMONWEALTH of VIRGINIA

Department of Health

CYNTHIA C. ROMERO, MD, FAAFP
STATE HEALTH COMMISSIONER

PO BOX 2448
RICHMOND, VA 23218

TTY 7-1-1 OR
1-800-828-1120

April 29, 2013

LYME DISEASE IN VIRGINIA

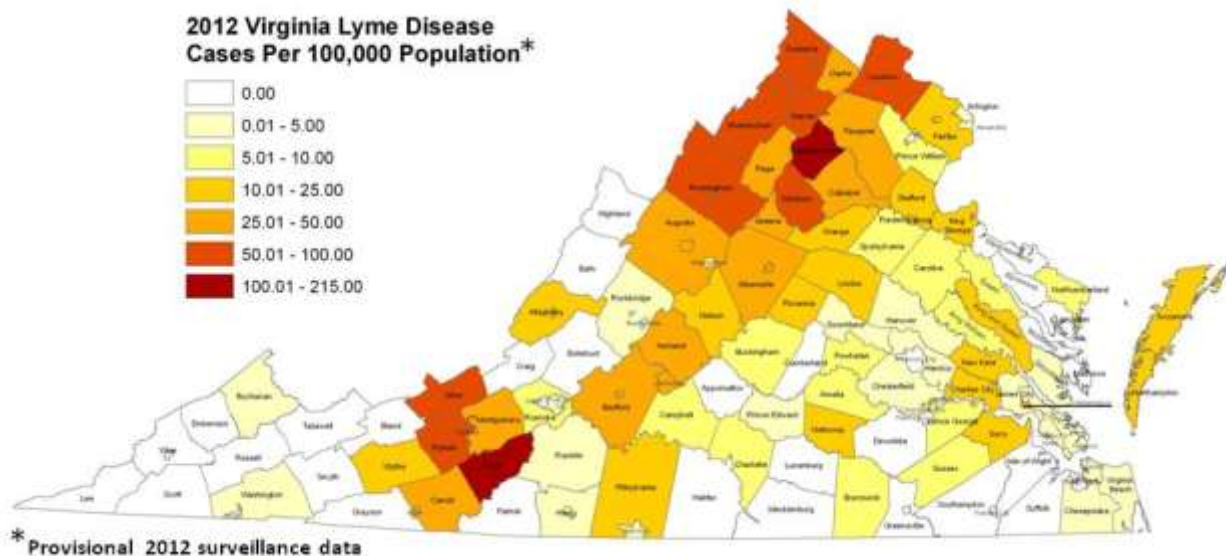
Dear Colleague:

As the weather gets warmer, Virginians will spend more time outdoors and this may increase their exposure to ticks and tickborne diseases, including Lyme disease. Early treatment for Lyme disease and other tickborne diseases depends upon clinical suspicion based on exposure history, symptom history, and findings from the physical exam. Most patients, when treated with antibiotics in the early stages of these infections, quickly recover.

Epidemiology

The Virginia Department of Health is committed to providing up-to-date, evidence-based information regarding the epidemiology and prevention of Lyme disease and other tickborne diseases to help you diagnose and prevent these infections among your patients. Lyme disease continues to evolve epidemiologically in Virginia. In 2012, there were an estimated 1,110 confirmed or probable cases of Lyme disease (an increase of about 9% from 2011).

Cases were reported in all regions of the state (see map). While Lyme disease continues to be the most commonly reported tickborne illness in Virginia, there were approximately 460 cases of spotted fever group rickettsioses, which may include some cases of Rocky Mountain spotted fever (RMSF), and approximately 150 cases of ehrlichiosis/anaplasmosis (about 88% were determined to be ehrlichiosis) reported in Virginia in 2012.



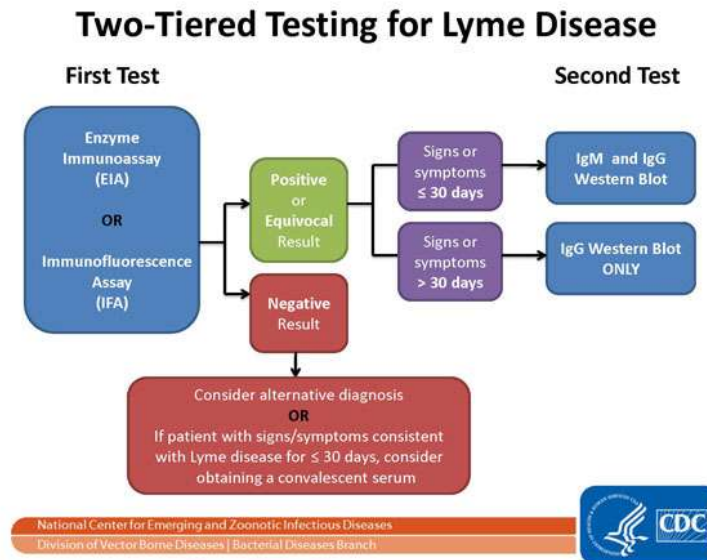
Diagnosis

During the spring and summer, you may see patients who present with signs and symptoms of Lyme disease. Lyme disease and other tickborne diseases should be considered in any patient who presents with a febrile illness during warm weather months. In many instances, these patients may not recall a tick bite. Some patients may present with a rash, while others may describe symptoms such as fatigue, chills, fever, headaches, myalgias, or arthralgias. If they do present with a history of a tick bite, remember that an infected tick must be attached to the skin for at least 36 hours to transmit the Lyme bacterium *Borrelia burgdorferi*, 24 hours to transmit ehrlichiosis/anaplasmosis, and only 10 to 20 hours to transmit RMSF. Also, remember that the blacklegged tick *Ixodes scapularis* is the only tick that can transmit Lyme disease in Virginia.

The diagnosis of early Lyme disease should be made on clinical grounds alone when a characteristic erythema migrans (EM) lesion is present in a patient who lives in or has recently traveled to an endemic area. Patients who present with an EM lesion likely will be seronegative, if laboratory testing is performed.

Laboratory Testing

Laboratory testing can be a useful tool in the diagnosis of tickborne disease, aiding decisions regarding the initiation of prompt and effective treatment. For Lyme disease, the Centers for Disease Control and Prevention (CDC) recommends a two-tiered process for testing blood for evidence of antibodies against Lyme disease bacteria (see graphic). This two-step method consists of an enzyme immunoassay (EIA) or immunofluorescent assay (IFA), which, if positive or equivocal, is followed by a Western blot. IgM Western blots as part of this method are valid only for patients with illness onset within 30 days. IgG Western blots are more specific for patients with older infections. With many laboratories, you can order an EIA with reflex to Western blot.



Some of your patients may express concern regarding the accuracy of Lyme testing. Serological testing for Lyme disease can yield false negatives if blood is collected too early in the course of illness. It can also yield false positives due to non-specific reactivity of EIA, IFA and IgM Western blot when these methods are used individually. IgG Western blot tests interpreted by the standard criteria are highly specific and unlikely to yield false positives, but may remain positive in some patients for many years.

While laboratory blood tests are not perfect, they can be helpful when used correctly and performed with validated methods. Laboratory tests are not recommended for patients who do not have symptoms typical of Lyme disease. Just as it is important to correctly diagnose Lyme disease when a patient has it, it is important to avoid misdiagnosis and treatment of Lyme disease when the true cause of the illness is something else. For more information about laboratory testing used in the diagnosis of Lyme disease, [please refer to CDC guidelines](#).

House Bill 1933

The [Virginia Board of Medicine](#) has a notice about the new law that places a requirement on practitioners who order tests for Lyme disease. As of July 1, 2013, “every licensee or his in-office designee who orders a laboratory test for the presence of Lyme disease shall provide to the patient or patient’s legal representative” certain information. The full law and the language that must be provided to patients can be [viewed online](#).

Prevention

One of the most important things to remember about Lyme disease is that it is preventable. To assist your patients in preventing tickborne diseases, remind them to reduce their exposure to ticks by encouraging them to use insect repellent, wear protective clothing, and regularly check for and remove ticks. In addition to educational materials and information to assist you in reporting Lyme disease cases to your local health department, you can [find printable brochures to share with patients](#) on the VDH website.

Lyme Disease Clinicians Forum

VDH will be hosting a Lyme Disease Clinicians Forum on **June 6, 2013, in Charlottesville, Virginia**. CME will be offered. Registration and more information are available [through TRAIN Virginia](#).

Sincerely,

Cynthia C. Romero, MD, FAAFP
State Health Commissioner