

Lyme Testing Guidance for Healthcare Providers

Date: May 24th, 2022

Effective Date: May 25th, 2022

Lyme disease is an infection caused by *Borrelia burgdorferi* bacteria that are transmitted to humans from some *Ixodes* tick species. UR Medicine Labs offers serological testing for Lyme antibodies to aid in the diagnosis of Lyme disease.

Serological Testing (Recommended)

Test Name: Lyme AB Screen with reflex to Lyme IgG & IgM Confirmation

Test Code: LYMAB; Turn-around-time: 24-72 hours

Testing for IgM and IgG antibodies to *B. burgdorferi* is performed using enzyme immunoassays in a two step protocol as recommended by NYSDOH to detect and confirm the presence of specific antibodies; this testing algorithm has replaced western blot for confirmation of Lyme specific antibodies.

Tick Identification

Test Name: Arthropod Identification

Test Code: PAID

Ticks removed from human skin can be assessed for species, developmental stage, sex, and degree of blood engorgement. While this information may help determine the risk of transmission, a detailed patient history related to time of tick attachment is most relevant. *Ixodes* ticks attached for <36 hours are unlikely to transmit disease and prophylaxis is not recommended, while *Ixodes* ticks attached for ≥ 36 hours are more likely to transmit disease and prophylaxis may be recommended; waiting for results of tick testing, however, may delay treatment and be detrimental to patient care.

NOTE: According to 2020 Practice Guidelines, the CDC, Infectious Diseases Society, American Academy of Neurology, and American College of Rheumatology do not recommend testing ticks for *B. burgdorferi* since the presence of the organism in a tick does not predict clinical infection, and we do not offer such testing.

Community-engaged tick surveillance

The general public who encounter ticks and wish to submit them directly to the Upstate Tick Testing Laboratory for free identification and pathogen screening may do so. This laboratory currently offers community-engaged tick surveillance and tests for a number of tick-borne pathogens. These results should not be used for human diagnostic purposes. For more information on how to directly submit ticks and to view surveillance data, visit www.nyticks.org.

From: Andrew Cameron, PhD D(ABMM)
Assistant Director, Clinical Microbiology, UR Medicine Labs
University of Rochester Medical Center
E-mail: andrew_cameron@urmc.rochester.edu