WISCONSIN DIAGNOSTIC LABORATORIES

Microbiology Testing Update

EFFECTIVE JULY 16, 2025

Lyme (B. *burgdorferi*) Antibody with Reflex

Effective July 16, 2025, Lyme antibody test algorithm will change to the Modified Two-Tiered Testing (MTTT) algorithm.

Laboratory evaluation of *Borrelia burgdorferi* exposure (Lyme disease) uses a two-tiered testing approach to detect antibodies against *B. burgdorferi* in a serum sample. In the standard two-tiered testing approach, screening is performed by enzyme immunoassay (EIA) followed by confirmatory testing using an immunoblot.

In 2019, the FDA approved a modified approach using two EIA-based laboratory tests performed sequentially, replacing the immunoblot for confirmatory testing.

- The modified two-tiered test (MTTT) utilizes an initial total antibody EIA to detect *B. burgdorferi* antibodies. If negative, no further laboratory testing is performed.
- Specimens that are positive or equivocal will be reflexed to individual IgM and IgG-specific *B. burgdorferi* antibody tests as appropriate.

  - Lyme (*B. burgdorferi*) testing is not intended to screen the general population and should be performed only in conjunction with appropriate clinical symptoms/history.
    - Symptom duration (e.g., greater than or less than 30 days) will be asked at order entry. The recommended orderable test will be automatically highlighted based on the answer provided.

Symptom duration	**CDC Recommended Lyme (*B. burgdorferi*) Testing**
Acute (<30 days)	Lyme IgM and IgG with reflex
Chronic (>30 days)	Lyme IgG with reflex *(Note: IgM testing is not recommended due to increased false-positive IgM results in patients with chronic symptoms)*

- The Lyme test results will be reported within a single test order **LAB6199 – Lyme Disease (*Borrelia burgdorferi*) Total Antibodies w/Reflex to Confirmatory Testing** that contains both two-tiered test results with a test interpretation.

For Questions or Additional Information, Please Contact:

- **WDL Client Services (24/7)**: 414.805.7600
- **Rachael Liesman,** PhD, D(ABMM), Section Director, Microbiology and Molecular, 414.805.6972, rliesman@mcw.edu
- **Macy Wood,** PhD, D(ABMM), Associate Section Director, Microbiology and Molecular, 414.805.5618, mawood@mcw.edu