

Clinical suspicion of tickborne disease based on patient characteristics:

Illness during tick season: fever, chills, headache, muscle aches, joint pain, neck pain, skin rash, Bell's palsy, heart rhythm disturbances, hypotension, jaundice, sepsis

AND

Known tick exposure OR environmental exposure (outdoor activities, wildlife)

At risk for Lyme disease, ehrlichiosis, anaplasmosis, babesiosis, and *Borrelia miyamotoi* disease

Classic erythema migrans (target lesion or bull's-eye rash)



Yes

No

- No lab testing needed for Lyme disease
- Treat for Lyme
- Monitor for symptoms of other tickborne illness

Consider empiric treatment for ehrlichiosis/anaplasmosis while awaiting test results

- Order TLABE – Tick Panel PCR w/Ehrlichia and Lyme for all tick offerings
- Order LYMET – Lyme Total Antibody Plus for serology alone
- Order TKABE – Tick panel PCR w/ Ehrlichia if Lyme is not needed
- Order TICKP – Lyme Total Antibody Plus and Tick panel PCR w/o Ehrlichia if Ehrlichia is not needed

LYMET (serology) Testing

Positive or Equivocal

Negative

Lyme IgG and IgM confirmation is performed via Chemiluminescent ImmunoAssay (CLIA) Methodology

Either IgG or IgM are Positive Or Equivocal

Negative

Report as Negative – consider follow-up testing in 2-3 weeks, if clinically indicated

Treat as appropriate

TKABE or Molecular (PCR) Testing

Positive

Negative

Treat as appropriate

Report as Negative – consider follow-up specimen for serologic testing 2-3 weeks, if clinically indicated

Additional testing options include:
Ehrlichia Antibody Panel, **EHRC**P (Mayo)
Anaplasma phagocytophilum Antibody, **APAI**S (Mayo)
Babesia microti IgG Antibodies, **BABMI** (Mayo)