**HELPFUL HINTS:**
Follow up for Suspect Cases of Tickborne Disease

This information is intended to help you prioritize the follow up of suspect cases of tickborne disease based on laboratory test results that are reported to you. A “positive” result does not necessarily indicate presence of disease. For this reason, you should ALWAYS call the ordering provider first to confirm a diagnosis before contacting the patient. If you are not able to confirm a diagnosis with the physician and choose to follow up with the patient, be aware that the patient may not have been given a diagnosis of a tickborne disease by the doctor. If the patient has NOT been given a diagnosis of infection with a tickborne disease, further case investigation is not required.

**Is there a positive lab result for Babesiosis?**
- YES - Babesiosis is prevalent throughout the state and can be transmitted by blood transfusion. These suspect cases should be followed up promptly to determine if there is a history of blood transfusion or donation.
- Lab results indicating a + Babesia smear or + Babesia-specific PCR are most likely to represent true cases and should be prioritized for follow up over other suspect cases of babesiosis.
- Suspect cases with a single + Babesia-specific IFA IgG antibody titer of ≥ 1:256 (≥ 1:512 for B. duncani) may or may not represent actual infection and should be investigated. No follow up is required for titers below this threshold.

**Is there a positive lab result for Human Granulocytic Anaplasmosis (HGA)?**
- YES - Because HGA is also found throughout Massachusetts, suspect HGA cases should be a second priority for follow up.
- Lab results indicating detection of *Anaplasma phagocytophilum* or *Ehrlichia phagocytophilum* by PCR are most likely to represent true cases and should be prioritized for follow up over other suspect cases of HGA.
- Suspect cases with a single + *A. phagocytophilum* or *E. phagocytophilum*-specific IFA (IgM or IgG) antibody titer of ≥ 1:80 may or may not represent actual infection and should be investigated. No follow up is required for titers below this threshold.

**Is there a positive lab result for Borrelia miyamotoi?**
- YES - Because there are likely to be few *Borrelia miyamotoi* cases and little information is available on patients with this disease, suspect cases should be a priority following Babesiosis and HGA investigations.
- Positive lab results may come in by IgM, IgG or PCR for *B. miyamotoi*, all of which should be prioritized for follow up. For lab results that come in as TBRF, check the attached lab to see if it’s a second priority for follow up. Lab results indicating detection of *E. chaffeensis* or *E. ewingii* by PCR are most likely to represent true cases and should be prioritized for follow up over other suspect cases of ehrlichiosis.
- Suspect cases with a single + *E. chaffeensis* or *E. ewingii*-specific IFA (IgM or IgG) antibody titer of ≥ 1:128 may or may not represent actual infection and should be investigated. No follow up is required for titers below this threshold.

**Is there a positive lab result for Ehrlichiosis (HME)?**
- YES - *Ehrlichia chaffeensis* is transmitted by the lone star tick. Because the lone star tick is less commonly found in Massachusetts, true cases of ehrlichiosis are also rare. Suspect HME cases are therefore a lower priority for follow up than suspect babesiosis, HGA, and *B. miyamotoi* cases.
- Lab results indicating detection of *E. chaffeensis* or *E. ewingii* by PCR are most likely to represent true cases and should be prioritized for follow up over other suspect cases of ehrlichiosis.
- Suspect cases with a single + *E. chaffeensis* or *E. ewingii*-specific IFA (IgM or IgG) antibody titer of ≥ 1:128 may or may not represent actual infection and should be investigated. No follow up is required for titers below this threshold.

**Is there a positive lab result for Rocky Mountain spotted fever (RMSF)?**
- YES - RMSF is a rare disease in Massachusetts. Since 2000, there have only been five confirmed cases in the state. This means that most suspect cases are not likely true cases and can be prioritized after suspect babesiosis, HGA, *B. miyamotoi*, and HME cases.
- Lab results indicating detection of *Rickettsia rickettsii* or spotted fever group-specific PCR are most likely to represent true cases and should be prioritized for follow up over other suspect cases of RMSF.
- Suspect cases with a single + *R. rickettsia* or spotted fever group-specific IFA IgG antibody titer of ≥ 1:128 may or may not represent actual infection and should be investigated. No follow up is required for titers below this threshold.
- If the only positive lab result for a suspect case is a NON-IFA serology (titer) result, no additional follow up is indicated.

The information above is intended as guidance only and local protocols for follow up may vary.

*LBOHs are not asked to conduct case-based follow-up for Lyme disease.*