

**BABESIOSIS****NON-IMMEDIATE NOTIFICATION****EPIDEMIOLOGY PROGRAM**

Event Name:	BAB	
Event Time Period:	1 year	
Clinical Description (CDC 2025):	<p>Clinically, babesiosis can range from asymptomatic to life-threatening. Clinical manifestations, if any, typically appear 1 – 4 weeks after a tick bite and 1 – 9 weeks after blood transfusion. Common symptoms include fever, chills, sweats, headache, myalgia, malaise, and fatigue, and laboratory anomalies like anemia, thrombocytopenia, and elevated liver enzymes may be present. Risk factors for severe babesiosis include asplenia, advanced age, and other causes of immunosuppression.</p> <p>Clinical criteria for the purposes of surveillance:  Objective: fever as reported by patient or healthcare provider, anemia, or thrombocytopenia  Subjective: chills, sweats, headache, myalgia, or joint aches/pains (arthralgia)</p>	
CDC Event Classification (2025):	<i>Confirmed</i>	<p>A case with at least one of the objective or subjective clinical criteria and meets one of the following confirmatory laboratory evidence:</p> <ol style="list-style-type: none"> <li>1. Identification of intraerythrocytic <i>Babesia</i> organisms by light microscopy in a Giemsa, Wright, or Wright-Giemsa–stained blood smear; OR</li> <li>2. Detection of <i>Babesia</i> spp. DNA in a whole blood specimen through nucleic acid testing such as polymerase chain reaction (PCR) assay, nucleic acid amplification test (NAAT), or genomic sequencing that amplifies a specific target, in a sample taken within 60 days of illness onset; OR</li> <li>3. Serological evidence of a four-fold change in IgG-specific antibody titer to <i>B. microti</i> antigen by indirect immunofluorescence assay (IFA) in paired serum samples (one taken within two weeks of illness onset and a second taken two to ten weeks after acute specimen collection).</li> </ol>
	<i>Probable</i>	<p>A case with at least one of the objective clinical criteria and meets presumptive laboratory evidence:</p> <ol style="list-style-type: none"> <li>1. Serologic evidence of an elevated IgG or total antibody reactive to <i>B. microti</i> antigen by IFA at a titer <math>\geq 1:256</math> in a sample taken within 60 days of illness onset.</li> </ol>
	<i>Suspect</i>	<p>A case that meets supportive laboratory evidence:</p> <ol style="list-style-type: none"> <li>1. Serologic evidence of an elevated IgG or total antibody reactive to <i>B. divergens</i> antigen by IFA at a titer <math>\geq 1:256</math>; OR</li> <li>2. Serologic evidence of an elevated IgG or total antibody reactive to <i>B. duncani</i> antigen by IFA at a titer <math>\geq 1:512</math>.</li> </ol>
Massachusetts Event Classification (2025):	<i>Confirmed</i>	Same as CDC
	<i>Probable</i>	Same as CDC
	<i>Suspect</i>	Meets confirmatory or presumptive laboratory evidence with no or insufficient clinical information to classify as a confirmed or probable case (e.g., a laboratory report only).

**BABESIOSIS (continued)**

Report type	Test Type	Source	Result	New event or beyond report period?	Data Entry
Laboratory Report	Microscopy Smear	Blood	<i>Babesia species</i> <i>Babesia microti</i> <i>Babesia divergens</i> <i>Babesia duncani</i>	Yes	New event SUSPECT
				No	Same event
<i>Select:</i> Microscopy: PrId: Pt: xxx: Nom: xxx stain					
Laboratory Report	PCR	Blood	Positive	Yes	New event SUSPECT
				No	Same event
<i>B. microti specific Select:</i> Babesia microti DNA: ACnc: Pt: Bld: Ord: Probe.Amp.Tar					
<i>Babesia sp. Select:</i> Babesia sp DNA XXX QI PCR					
Laboratory Report	IFA – total or IgG	Blood	Positive ( <i>enter titer if given</i> )	Yes	New event SUSPECT
				No	Same event
<i>B. microti specific (Total Ab):</i> Babesia microti Ab Titr IF					
<i>B. species (Total Ab):</i> Babesia sp Ab: Titr: Pt:Ser:Qn:IF					
<i>B. species or B.microti Select (IgG-specific):</i> Babesia sp Ab.IgG: Titr: Pt: Ser: Qn: IF					
<i>B. duncani (IgG-specific):</i> Babesia duncani Ab.IgG: Titr: Pt: Ser: Qn: IF					
Laboratory Report	IFA IgM	Blood	Positive ( <i>enter titer if given</i> )	Yes	Do not create a Babesiosis event if the only positive result received is an IgM result.
				No	Same event
<i>B. species or B.microti Select (IgM-specific):</i> Babesia sp Ab.IgM: Titr: Pt: Ser Qn: IF					
<i>B. duncani (IgM-specific):</i> Babesia duncani Ab.IgM: Titr: Pt: Ser Qn: IF					
Laboratory Report	EIA IgG	Blood	Positive ( <i>enter titer if given</i> )	Yes	New event SUSPECT
				No	Same event
<i>Select:</i> Babesia Microti Ab IgG: Acnc: Pt: Ser: Ord: EIA					
Laboratory Report	Immunoblot IgG	Blood	Positive	Yes	New event SUSPECT

				No	Same event
<i>Select (IgG-specific):</i>	Babesia sp Ab.IgG: Titr: Pt: Ser: Qn: IB				
Laboratory Report	Immunoblot IgM	Blood	Positive	Yes	Do not create a Babesiosis event if the only positive result received is an IgM result.
				No	Same event
<i>Select (IgM-specific):</i>	Babesia sp Ab.IgM: Titr: Pt: Ser: Qn: IB				
Laboratory Report	IgG (method not specified)**	Blood	Positive ( <i>enter titer if given</i> )	Yes	New event SUSPECT
				No	Same event
<i>Select (IgG-specific):</i>	Babesia Microti Ab IgG: Acnc: Pt: Ser: Ord:				
Laboratory Report	IgM (method not specified)**	Blood	Positive ( <i>enter titer if given</i> )	Yes	Do not create a Babesiosis event if the only positive result received is an IgM result.
				No	Same event
<i>Select (IgM-specific):</i>	Babesia Microti Ab IgM: Acnc: Pt: Ser: Ord:				

**\*\* DATA ENTRY NOTES**

**FOCUS Labs**

May not specify the methodology however, they perform IFA antibody testing for Babesiosis

**Quest Labs**

May not specify the methodology; however, this lab performs IFA antibody testing for Babesiosis

**IgeneX Labs -- See separate tipsheet on entering tickborne disease labs from IgeneX**

Babesia Fluorescent in situ Hybridization test (FISH)

We will not accept this test from IGeneX. If we receive any of these tests (IGeneX sends on paper) they can be shredded.