EHRLICHIOSIS **NON-IMMEDIATE NOTIFICATION** **EPIDEMIOLOGY PROGRAM**

Event Name:	EHR	
Event Time Period:	1 year	
Clinical Description (CSTE 2023):	Clinical Criteria: Objective: fever, anemia, leukopenia, thrombocytopenia, or any hepatic transaminase elevation Subjective: chills/sweats, headache, myalgia, nausea/vomiting, or fatigue/malaise	
CSTE Event Classification (2023): *Ehrlichiosis chaffeensis* *Ehrlichiosis ewingii* *Ehrlichiosis muris eauclairensis* Unspeciated *Ehrlichia* spp. Other *Ehrlichia* spp.	*Confirmed*	Clinically compatible with at least one of the objective or subjective clinical criteria and meets one of the following laboratory criteria: • Detection of *E. chaffeensis, E. ewingii, E. muris eauclairensis*, unspeciated *Ehrlichia* spp., or other *Ehrlichia* spp. DNA in a clinical specimen via amplification of a specific target by polymerase chain reaction (PCR) assay, nucleic acid amplification tests (NAAT), or other molecular method, **OR**, • Serological evidence of a fourfold change in immunoglobulin G (IgG)-specific antibody titer to *Ehrlichia* antigen by indirect immunofluorescence assay (IFA) in paired serum samples (one taken in first two weeks after illness onset and a second taken 2 to 10 weeks after acute specimen collection), **OR**, • Demonstration of ehrlichial antigen in a biopsy or autopsy sample by immunohistochemical methods, **OR**, • Isolation of *E. chaffeensis, E. ewingii, E. muris eauclairensis*, unspeciated *Ehrlichia* spp., or other *Ehrlichia* spp. from a clinical specimen in cell culture with molecular confirmation (e.g., PCR or sequence).
	Probable	A case with fever and at least one other objective or subjective clinical criteria (excluding chills/sweats) with one of the following laboratory criteria: • Serological evidence of elevated IgG antibody reactive with *Ehrlichia* spp. antigen by IFA at a titer ≥1:128 in a sample taken within 60 days of illness onset, **OR** • Microscopic identification of intracytoplasmic morulae in leukocytes in a sample taken within 60 days of illness onset. **OR** A case without fever but with chills/sweats **AND** • at least one objective clinical criterion **OR** two other subjective clinical criteria, **AND** • at least one of the probable laboratory criteria listed above.
	Suspect	A case with confirmatory or probable laboratory evidence with no or insufficient clinical information to classify as a confirmed or probable case (e.g., a laboratory report)
Massachusetts Event Classification (2023):	Follows the CSTE event classification	

EHRLICHIOSIS (continued)

Report Type	Test Type	Source	Result	New event or beyond report period?	Data Entry
Laboratory Report	IFA – Total or IgG	Serum	Positive	Yes	New event SUSPECT
				No	Same event
Select (total or not IgM/IgG specific):	Human monocytic ehrlichiosis Ab: Titr: Pt: Ser: Qn: IF				
Select (IgG-specific):	Human monocytic ehrlichiosis Ab.IgG: Titr: Pt: Ser: Qn: IF				
Laboratory Report	IFA - IgM	Serum	Positive	Yes	Do not create a HME event if the only positive is an IgM result.
				No	Same event
Select (IgM-specific):	Human monocytic ehrlichiosis Ab.IgM: Titr: Pt: Ser: Qn: IF				
Laboratory Report	IgG *method not specified***	Serum	Positive	Yes	New event SUSPECT
				No	Same event
Select (IgG-specific):	Ehrlichia chaffeensis Ab.IgG: Acnc: Pt: Ser: Ord:				
Laboratory Report	IgM *method not specified***	Serum	Positive	Yes	Do not create a HME event if the only positive is an IgM result.
				No	Same event
Select (IgM-specific):	Ehrlichia chaffeensis Ab.IgM: ACnc: Pt: Ser: Ord:				
Laboratory Report	EIA – Total or IgG	Serum	Positive	Yes	New event SUSPECT
				No	Same event
Select (total or not IgM/IgG specific):	Human monocytic ehrlichiosis Ab: Titr: Pt: Ser: Ord: EIA				
Select IgG specific:	Ehrlichia chaffeensis Ab.IgG: ACnc: Pt: Ser: Qn: EIA				
Laboratory Report	EIA – IgM	Serum	Positive	Yes	Do not create a HME event if the only positive is an IgM result.
				No	Same event
Select IgM specific:	Ehrlichia chaffeensis Ab.IgM: ACnc: Pt: Ser: Ord: EIA				

Report Type	Test Type	Source	Result	New event or beyond report period?	Data Entry
Laboratory Report	PCR	Clinical specimen	Positive *Ehrlichia. ewingii* *Ehrlichia. muris* *Ehrlichia species*	Yes	New event SUSPECT
				No	Same event
Select (E. chaffeensis):	Ehrlichia chaffeensis DNA: ACnc: Pt: xxx: Ord: Probe.Amp.Tar				
Select (E. ewingii/E. canis):	E. canis+ewingii groEL gene NAA+non-probe Ql				
Select (any other Ehrlichia):	Ehrlichia sp DNA: ACnc: Pt: XXX: Ord: probe.amp.tar				
Laboratory Report	RIBA – IgG	Serum	Positive	Yes	New event SUSPECT
				No	Same event
Select (IgG-specific):	Human monocytic ehrlichiosis Ab.IgG: AC: Pt: xxx: Ord: IB				
Laboratory Report	RIBA – IgM	Serum	Positive	Yes	Do not create a HME event if the only positive is an IgM result.
				No	Same event
Select (IgM-specific):	Human monocytic ehrlichiosis Ab.IgM: AC: Pt: xxx: Ord: IB				
Laboratory Report	Culture	Clinical specimen	*Ehrlichia chaffeensis*	Yes	New event SUSPECT
				No	Same event
Select:	Microorganism: PrId: Pt: xxx: Nom: Culture				

**** Data Entry Notes**

If an Ehrlichiosis laboratory result is received that includes a smear or stain test type, save a copy in the RightFaxInput\EPI REVIEW REQUIRED\Zoonotic folder and notify the Zoonotic Liaison. These test types may have results such as "leukocyte **inclusions** consistent with ehrlichiosis", "monocytic inclusions consistent with ehrlichiosis", "**morulae** consistent with Ehrlichiosis sp.", etc.

Quest Labs
May not specify the methodology; however, this lab performs IFA antibody testing for Ehrlichiosis

FOCUS Labs
May not specify the methodology however, they perform IFA antibody testing for Ehrlichiosis