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Ehrlichiosis  
2000 Case Definition  
Ehrlichiosis  
2000 Case Definition  
NOTE:  
A surveillance case definition is a set of uniform criteria used to define a disease for public health surveillance. Surveillance case definitions enable public health officials to classify and count cases consistently across reporting jurisdictions. Surveillance case definitions are not intended to be used by healthcare providers for making a clinical diagnosis or determining how to meet an individual patient’s health needs.  
Subtype(s)  
Human granulocytic ehrlichiosis  
Human monocytic ehrlichiosis  
Other or unspecified human ehrlichiosis  
Clinical Description  
A tick-borne illness characterized by acute onset of fever, headache, myalgia, and/or malaise. Nausea, vomiting, or rash may be present in some cases. Clinical laboratory findings may include thrombocytopenia, leukopenia, and/or elevated liver enzymes. Intracytoplasmic bacterial aggregates (morulae) may be visible in the leukocytes of some patients.  
Three categories of confirmed or probable ehrlichiosis should be reported: 1) human ehrlichiosis caused by  
E. chaffeensis  
(HME), 2) human ehrlichiosis caused by  
E. phagocytophila  
(HGE), and 3) human ehrlichiosis (other or unspecified agent), which includes cases that cannot be easily classified by available laboratory techniques, and cases caused by novel  
Ehrlichia  
species such as  
E. ewingii  
.  
Subtype(s) Case Definition  
Expand All  
Human granulocytic ehrlichiosis  
Laboratory Criteria For Diagnosis  
Demonstration of a four-fold change in antibody titer to  
E. phagocytophila  
antigen by IFA in paired serum samples,  
OR  
Positive PCR assay and confirmation of  
E. phagocytophila  
DNA,  
OR  
Identification of morulae in leukocytes, and a positive IFA titer to  
E. phagocytophila  
antigen (based on cutoff titers established by the laboratory performing the assay),  
OR  
Immunostaining of  
E. phagocytophila  
antigen in a biopsy or autopsy sample,  
OR  
Culture of  
E. phagocytophila  
from a clinical specimen.  
Human monocytic ehrlichiosis  
Laboratory Criteria For Diagnosis  
Demonstration of a four-fold change in antibody titer to  
E. chaffeensis  
antigen by indirect immunofluorescence assay (IFA) in paired serum samples,  
OR  
Positive polymerase chain reaction (PCR) assay and confirmation of  
E. chaffeensis  
DNA,  
OR  
Identification of morulae in leukocytes, and a positive IFA titer to  
E. chaffeensis  
antigen (based on cutoff titers established by the laboratory performing the assay),  
OR  
Immunostaining of  
E. chaffeensis  
antigen in a biopsy or autopsy sample,  
OR  
Culture of  
E. chaffeensis  
from a clinical specimen.  
Other or unspecified human ehrlichiosis  
Laboratory Criteria For Diagnosis  
Demonstration of a four-fold change in antibody titer to more than one  
Ehrlichia  
species by IFA in paired serum samples, in which a dominant reactivity cannot be established,  
OR  
Identification of an  
Ehrlichia  
species other than  
E. chaffeensis  
or  
E. phagocytophila  
by PCR, immunostaining, or culture.  
Case Classification  
Probable  
A clinically compatible illness with either a single positive IFA titer (based on cutoff titers established by the laboratory performing the test) or the visualization of morulae in leukocytes.  
Confirmed  
A clinically compatible illness that is laboratory-confirmed.  
Related Case Definition(s)  
Ehrlichiosis | 2024 Case Definition  
Ehrlichiosis | 1998 Case Definition  
Ehrlichiosis | 1996 Case Definition  
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National Notifiable Diseases Surveillance System (NNDSS)  
NNDSS receives and shares case data from state, local, and territorial health departments to help public health monitor, control, and prevent serious diseases.  
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