DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Disease Control and Prevention (CDC)

Tick-Borne Rickettsial Disease Case Report



Form Approved OMB 0920-0009

<i>~</i>	Atlanta, Georgia 30333	Use for: Spotted fever rickettsiosis (SFR) including Rocky Mountain spotted fever (RMSF),
WINVEST C		Ehrlichiosis (E. chaffeensis, E. ewingii, & undet.), and Anaplasmosis (A. phagocytophilum & undet.).
		Visit http://www.cdc.gov and use "Search" for complete Case Definition(s) or
CDC#	(1-4)	visit the disease web site(s) for a fillable/downloadable PDF version of this Case Report.

Address: Phys (number, street)	submitted: 01/11/2010 (mm/dd/yyyy) ician's (5-6) (7-8) (9-12) (Phone e: no.: Case ID (13-18) Site (19-21) State (22-23)			
(61-62) (63-64) (65-68) (mm/dd/yyyy) 2 Black 4	American Indian Alaskan Native 5 Pacific Islander Asian 9 Not specified 7. Hispanic 1 Yes ethnicity: 2 No (70) 9 Unk			
1 YES 2 NO 9 Unk Specify condition(s):				
13. Was the patient hospitalized because of this illness? (83) (If yes, date) 1 YES 2 NO 9 Unk (84-85) (86-87) (88-91) (mm/dd/yyyy) 1 YES 2 NO 9 Unk (93-94) (95-96) (97-100) (mm/dd/yyyy)				
16. Serologic Tests Serology 1 Serology 2* Titer Positive? Titer Serology 2 NO (117) () 1	State:Zip:			
18. Classify case BASED ON the CDC case definition (see criteria below): 1 SFR (including RMSF) 2 Ehrlichiosis - E. chaffeensis 3 Anaplasmosis - A. phagocytophilum 4 Ehrlichiosis - E.ewingii 5 Ehrlichiosis/Anaplasmosis - Undetermined (139-148) COMMENTS:				

Confirmed SFR (including RMSF): A clinically compatible case with evidence of a fourfold change in IgG antibody titer reactive with *Rickettsia rickettsii* or other SFR antigens by IFA between paired serum specimens, one taken during the first week of illness and a second 2-4 weeks later, OR detection of *R. rickettsial* speciments, one activation in the restriction of a specific target by PCR assay, OR demonstration of SFR antigen in a biopsy/autopsy specimen by IHC, OR isolation of *R. rickettsia* or other SFR species from a clinical specimen in cell culture.

Probable SFR (including RMSF): A clinically compatible case with evidence of elevated IgG or IgM antibody reactive with *R. rickettsii* or other SFR antigens by IFA, enzyme-linked immunosorbent assay (ELISA), dot-ELISA, or latex agglutination (CDC uses an IFA IgG cutoff of ≥1:64 and does not use IgM test results as independent diagnostic support criteria.).

Note: Current commercially available ELISA tests cannot evaluate changes in antibody titer. IgM tests may be unreliable because they lack specificity. IgM antibody may persist for lengthy periods of time. When sera demonstrate elevated antibody responses to multiple infectious agents among rickettsial species, and between ehrlichial and anaplasmal species, the greater antibody response is generally directed at the actual agent involved.

Confirmed Ehrlichiosis/Anaplasmosis: A clinically compatible case with evidence of a fourfold change in IgG antibody titer reactive with Ehrlichia chaffeensis or Anaplasma phagocytophilum antigen by IFA between paired serum specimens (one taken during the first week of illness and a second 2-4 weeks later) OR detection of E. chaffeensis or A. phagocytophilum DNA in a clinical specimen via amplification of a specific target by PCR assay, OR demonstration of ehrlichial or anaplasmal antigen in a biospy/autopsy specimen by IHC, OR isolation of *E. chaffeensis* or *A. phagocytophilum* from a clinical specimen in cell culture.

Probable Ehrlichiosis/Anaplasmosis: A clinically compatible case with evidence of elevated IgG or IgM antibody reactive with *E. chaffeensis* or *A. phagocytophilum* antigen by IFA, enzyme-linked immunosorbent assay (ELISA), dot-ELISA, or assays in other formats (CDC uses an IFA IgG cutoff of ≥1:64 and does not use IgM test results as independent diagnostic support criteria.), OR identification of morulae in the cytoplasm of monocytes or macrophages (Ehrlichiosis) or in the cytoplasm of neutrophils or eosinophils (Anaplasmosis) by microscopic

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DEPARTMENT OF HEALTH & HUMAN SERVICES Centers for Disease Control TOTAL DOM: 0.000 and Prevention (CDC) Atlanta, Georgia 30333

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Ehrlichiosis (E. chaffeensis, E. ewingii, & undet.), and Anaplasmosis (A. phagocytophilum & undet.). Visit http://www.cdc.gov and use "Search" for complete Case Definition(s) or visit the disease web site(s) for a fillable/downloadable PDF version of this Case Report.

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		Phy nam	e submitted: 01/11/2 sician's (5-6) (7-8) ee:		none no.: Site (19-21) State (22-23)	
1. State of residence: Postal abrv: (24-25) 5. Date of birth: (61-62) (63-64) 8. Indicate Disease (F	2. County of residence: (26-50) History of travel outside county of residen (6. Rac (65-68) (65-68) Presumed) To Be Reported: (71)	Ce: 1 White 3 2 Black 4	Asian 9	NO 9 Unk Pacific Islander Not specified s - A. phagocytophilum 5	Code: (51-59) 4. Sex: (60) 1	
9. Was a clinically compatible illness present? If there is no presence of clinical eliness, then this is not a case. Clinical evidence - fever and one or more of the following: rash (primarily SFR), headache, myalgia, anemia, leukopenia (Ehrlich. & Anaplas.), thrombocytopenia, or elevated hepatic transaminases. Eschar (aka tache noire) or black, necrotic area around site of known/possible tick bite present? 1. YES 2 NO 9 Unk 1. Adult respiratory distress syndrome (ARDS) 3 Meningitis/encephalitis Specify condition(s): 2. Disseminated intravascular coagulopathy (DIC) 4 Renal failure 9 None 8. Other:						
13. Was the patient hospitalized because of this illness? (83) (If yes, date) 1 YES 2 NO 9 Unk (84-85) (86-87) (88-91) (mm/dd/yyyy) 15. Name of laboratory: City: State: Zip:						
16. Serologic Tests IFA - IgG IFA - IgM Other (121-130)	Serology 1 Titer Positive? () 1 YES 2 NO () 1 YES 2 NO change in antibody titer between the two	Cocedure was performed Cocedure was perfor	To positive? Tyes 2 NO (120) Tyes 2 NO (132)	17. Other Diagnostic Te (Use#16,S1 for collection date) PCR Morulae visualization* Immunostain Culture	rocedure was not performed.	
1 SFR (including RMSF)	2 Ehrlichiosis - E. chaffeensis cytophilum 4 Ehrlichiosis - E. ewingii	below): 1 CONFIRME 2 PROBABLI	(149) Name:	nt Official who reviewed	this report: Date:	

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CDC# (1-4) VISIT the disease web site(s) for a f	mable/downloadable PDF version of this case Report. OMB 0920-0009					
Patient's name: Address: (number, street) City:	Date submitted: 01/11/2010 (mm/dd/yyyy) Physician's (5-6) (7-8) (9-12) (9-12) (mm/dd/yyyy) NETSS ID No.: (if reported) Case ID (13-18) Site (19-21) State (22-23)					
1. State of residence: Postal 2. County of residence: (26-50) History of travel outside county of residence within 30 day	3. Zip code: (51-59) 4. Sex: (60) 1 Male 9 Unk s of onset of symptoms?: 1 YES 2 NO 9 Unk					
5. Date of birth: 6. Race: (69) 1 White 2 Black	Not specified State State					
8. Indicate Disease (Presumed) To Be Reported: (71) 1 SFR (including RMSF) 3 Anaplasmosis - A. phagocytophilum 5 Ehrlichiosis/Anaplasmosis - Undetermined 2 Ehrlichiosis - E. chaffeensis 4 Ehrlichiosis - E. ewingii						
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11. Was an underlying immunosuppressive condition present? (81) 1 YES 2 NO 9 Unk Specify condition(s):	Disseminated intravascular coagulopathy (DIC) Other:					
13. Was the patient hospitalized because of this illness? (83) (If yes, date)	14. Did the patient die because of this illness?(92) (If yes, date)					
1 YES 2 NO 9 Unk (84-85) (86-87) (mm/dd/yyyy	1 YES 2 NO 9 Unk (93-94) (95-96) (mm/dd/yyyy)					
15. Name of laboratory:	(109-10) (111-12) (113-16) (USE#16,S1101 CONECUDITIONE)					
Other (121-130) () 1 YES 2 NO (131) (
*Was there a fourfold change in antibody titer between the two serum specimens? 1 YES 2 NO (137)						
18. Classify case BASED ON the CDC case definition (see criteria below): State Health Department Official who reviewed this report: 1 SFR (including RMSF) 2 Ehrlichiosis - E. chaffeensis 3 Anaplasmosis - A. phagocytophilum 4 Ehrlichiosis - E.ewingii 5 Ehrlichiosis/Anaplasmosis - Undetermined 1 CONFIRMED 2 PROBABLE						

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