EPIDEMIOLOGIC FEATURES AND SYMPTOMS OF RICKETTSIAL DISEASES

ANTIGENIC GROUP	DISEASE	AGENT	PREDOMINANT SYMPTOMS*	VECTOR OR ACQUISITION MECHANISM	ANIMAL RESERVOIR	GEOGRAPHIC DISTRIBUTION OUTSIDE THE US
Typhus fevers	Epidemic typhus, Sylvatic typhus	Rickettsia prowazekii	Headache, chills, fever, prostration, confusion, photophobia, vomiting, rash (generally starting on trunk)	Human body louse, squirrel flea and louse	Humans, flying squirrels (US)	Cool mountainous regions of Africa, Asia, and Central and South America
	Murine typhus	R. typhi	As above, generally less severe	Rat flea	Rats, mice	Worldwide
Spotted fevers	African tickbite fever	R. africae	Fever, eschar(s), regional adenopathy, maculopapular or vesicular rash subtle or absent	Tick	Rodents	Sub-Saharan Africa
	Aneruptive fever	R. helvetica	Fever, headache, myalgia	Tick	Rodents	Old World
	Australian spotted fever	R. marmionii	Fever, eschar, maculopapular or vesicular rash, adenopathy	Tick	Rodents, reptiles	Australia
	Cat flea rickettsiosis	R. felis	As murine typhus, generally less severe	Cat and dog fleas	Domestic cats, opossums	Europe, South America
	Far Eastern spotted fever	R. heilongjiangensis	Fever, eschar, macular or maculopapular rash, lymphadenopathy, enlarged lymph nodes	Tick	Rodents	Far East of Russia, Northern China
	Flinders Island spotted fever, Thai tick typhus	R. honei	Mild spotted fever, eschar and adenopathy are rare	Tick	Not defined	Australia, Thailand
	Lymphangitis associated rickettsiosis	R. sibirica subsp. mongolotimonae	Fever, multiple eschars, regional adenopathy and lymphangitis, maculopapular rash	Tick	Rodents	Southern France, Portugal, Asia, Africa
	Maculatum infection	R. parkeri	Fever, eschar, rash maculopapular to vesicular	Tick	Rodents	Brazil, Uruguay

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Spotted fevers	Mediterranean spotted fevers‡	R. conorii	Fever, eschar, regional adenopathy, maculopapular rash on extremities	Tick	Dogs, rodents	Africa, India, Europe, Middle East, Mediterranean
	North Asian tick typhus	R. sibirica	Fever, eschar(s), regional adenopathy, maculopapular rash	Tick	Rodents	Russia, China, Mongolia
	Oriental spotted fever	R. japonica	As above	Tick	Rodents	Japan
	Queensland tick typhus	R. australis	Fever, eschar, regional adenopathy, rash on extremities	Tick	Not defined	Australia, Tasmania
	Rickettsialpox	R. akari	Fever, eschar, adenopathy, disseminated vesicular rash	Mite	House mice	Russia, South Africa, Korea, Turkey, Balkan countries
	Rocky Mountain spotted fever, Sao Paulo exanthematic typhus, Minas Gerais exanthematic typhus, Brazilian spotted fever	R. rickettsii	Headache, fever, abdominal pain, macular rash progressing into papular or petechial (generally starting on extremities)	Tick	Rodents	Mexico, Central, and South America
	Unnamed rickettsiosis	R. aeschlimannii	Fever, eschar, maculopapular rash	Tick	Domestic and wild animals	Africa
	Tick-borne lymphadenopathy (TIBOLA), Dermacentor- borne necrosis and lymphadenopathy (DEBONEL)	R. slovaca	Necrosis erythema, cervical lymphadenopathy and enlarged lymph nodes, rare maculopapular rash	Tick	Lagomorphs, rodents	Europe, Asia

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Orientia	Scrub typhus	Orientia tsutsugamushi	Fever, headache, sweating, conjunctival injection, adenopathy, eschar, rash (starting on trunk), respiratory distress	Mite	Rodents	South, Central, Eastern, and Southeast Asia and Australia
Coxiella	Q fever	Coxiella burnetii	Fever, headache, chills, sweating, pneumonia, hepatitis, endocarditis	Most human infections are acquired by inhalation of infectious aerosols; tick	Goats, sheep, cattle, domestic cats, other	Worldwide
Bartonella	Cat-scratch disease	Bartonella henselae	Fever, adenopathy, neuroretinitis, encephalitis	Cat flea	Domestic cats	Worldwide
	Trench fever	B. quintana	Fever, headache, pain in shins, splenomegaly, disseminated rash	Human body louse	Humans	Worldwide
	Oroya fever	B. bacilliformis	Fever, headache, anemia, shifting joint and muscle pain, nodular dermal eruption	Sand fly	Unknown	Peru, Ecuador, Colombia
Ehrlichia	Ehrlichosis	Ehrlichia chaffeensis#	Fever, headache, nausea, occasionally rash	Tick	Various large and small mammals, including deer and rodents	Worldwide
Anaplasma	Anaplasmosis	Anaplasma phagocytophilum#	Fever, headache, nausea, occasionally rash	Tick	Small mammals, and rodents	Europe, Asia, Africa

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Neorickettsia	Sennetsu fever	Neorickettsia sennetsu	Fever, chills, headache, sore throat, insomnia	Fish, fluke	Fish	Japan, Malaysia

* This represents only a partial list of symptoms. Patients may have different symptoms or only a few of those listed.
‡ Includes 4 different subspecies that can be distinguished serologically and by PCR assay, and respectively are the etiologic agents of Boutonneuse fever and Mediterranean tick fever in Southern Europe and Africa (R. conorii subsp. conorii), Indian tick typhus in South Asia (R. conorii subsp. indica), Israeli tick typhus in Southern Europe and Middle East (R. conorii subsp. israelensis), and Astrakhan spotted fever in the North Caspian region of Russia (R. conorii subsp. caspiae).
# Organisms antigenically related to these species are associated with ehrlichial diseases outside the continental United States.