State of California—Health and Human Services Agency

Local ID Number: _____

California Department of Public Health
Center for Infectious Diseases
Division of Communicable Disease Control
Infectious Diseases Branch
Surveillance and Statistics Section
MS 7306, P.O. Box 997377
Sacramento, CA 95899-7377

Q FEVER
CASE REPORT

PATIENT INFORMATION

Last Name	*First Name*	*Middle Name*	*Suffix*

Social Security Number (9 digits)	*DOB (mm/dd/yyyy)*	*Age*	
			☐ Years ☐ Months ☐ Days

Address Number & Street – Residence	*Apartment / Unit Number*

City / Town	*State*	*Zip Code*

Census Tract	*County of Residence*	*Country of Residence*

Country of Birth	*If not U.S. Born - Date of Arrival in U.S. (mm/dd/yyyy)*

Home Telephone	*Cellular Phone / Pager*	*Work / School Telephone*

E-mail Address	*Other Electronic Contact Information*

Work / School Location	*Work / School Contact*

Gender
☐ Female ☐ Trans female / transwoman ☐ Genderqueer or non-binary ☐ Unknown
☐ Male ☐ Trans male/ transman ☐ Identity not listed ☐ Declined to answer

Pregnant? ☐ Yes ☐ No ☐ Unknown	*If Yes, Est. Delivery Date (mm/dd/yyyy)*

Medical Record Number	*Patient's Parent/Guardian Name*

Occupation Setting (see list on page 9)	*Other Describe/Specify*

Occupation (see list on page 9)	*Other Describe/Specify*

Primary Language
☐ English
☐ Spanish
☐ Other: _____

Ethnicity (check one)
☐ Hispanic/Latino
☐ Non-Hispanic/Non-Latino
☐ Unknown

Race(s)
(check all that apply, race descriptions on page 8)

The response to this item should be based on the patient's self-identity or self-reporting. Therefore, patients should be offered the option of selecting more than one racial designation.

☐ American Indian or Alaska Native

☐ Asian *(check all that apply, see list on page 8)*
- ☐ Asian Indian
- ☐ Bangladeshi
- ☐ Cambodian
- ☐ Chinese
- ☐ Filipino
- ☐ Hmong
- ☐ Indonesian
- ☐ Japanese
- ☐ Korean
- ☐ Laotian
- ☐ Malaysian
- ☐ Pakistani
- ☐ Sri Lankan
- ☐ Taiwanese
- ☐ Thai
- ☐ Vietnamese
- ☐ Other: _____

☐ Black or African-American

☐ Native Hawaiian or Other Pacific Islander *(check all that apply, see list on page 8)*
- ☐ Native Hawaiian
- ☐ Samoan
- ☐ Fijian
- ☐ Tongan
- ☐ Guamanian
- ☐ Other: _____

☐ White

☐ Other: _____

☐ Unknown

ADDITIONAL PATIENT DEMOGRAPHICS

Sex Assigned at Birth
☐ Female ☐ Unknown
☐ Male ☐ Declined to answer

Sexual Orientation
☐ Heterosexual or straight ☐ Questioning, unsure, or patient doesn't know ☐ Declined to answer
☐ Gay, lesbian, or same-gender loving ☐ Orientation not listed ☐ Unknown
☐ Bisexual

CLINICAL INFORMATION

Physician Name - Last Name	*First Name*	*Telephone Number*

First three letters of patient's last name: | | | |

SIGNS AND SYMPTOMS

Symptomatic? ☐ Yes ☐ No ☐ Unknown	*Onset Date (mm/dd/yyyy)*	*Date First Sought Medical Care (mm/dd/yyyy)*

Signs and Symptoms	Yes	No	Unk	If Yes, Specify as Noted
Fever				*Highest temperature (specify °F/°C)*
Myalgia				
Rigors, shaking chills				
Malaise				
Rash				*Location*
Cough				
Severe retrobulbar headache				
Splenomegaly				
Hepatomegaly				
Pneumonia				
Hepatitis				
Endocarditis				
Osteomyelitis, osteoarthritis				
Abdominal pain				
Abnormal chest x-ray				*Findings*
Elevated liver enzyme levels				*Findings*
Thrombocytopenia				

Other signs / symptoms (specify)

PAST MEDICAL HISTORY

	Yes	No	Unk	If Yes, Specify as Noted
Immunocompromised				*Condition*
Valvular heart disease				
Prior Q fever diagnosis				*Date*
Chronic kidney disease				*Condition*
Pregnancy				

Other (specify)

First three letters of patient's last name: | | | |

HOSPITALIZATION

Did patient visit the emergency room for illness?
☐ Yes ☐ No ☐ Unknown

Was patient hospitalized? ☐ Yes ☐ No ☐ Unknown	*If Yes, how many total hospital nights?*	*During any part of the hospitalization, did the patient stay in an intensive care unit (ICU) or a critical care unit (CCU)?* ☐ Yes ☐ No ☐ Unknown

If there were any ER or hospital stays related to this illness, specify details in the Hospitalization – Details section below.

HOSPITALIZATION – DETAILS

Hospital Name 1	*Street Address*			*Admit Date (mm/dd/yyyy)*	
	City			*Discharge / Transfer Date (mm/dd/yyyy)*	
	State	*Zip Code*	*Telephone Number*	*Medical Record Number*	*Discharge Diagnosis*
Hospital Name 2	*Street Address*			*Admit Date (mm/dd/yyyy)*	
	City			*Discharge / Transfer Date (mm/dd/yyyy)*	
	State	*Zip Code*	*Telephone Number*	*Medical Record Number*	*Discharge Diagnosis*

TREATMENT / MANAGEMENT

Received treatment? ☐ Yes ☐ No ☐ Unknown	*If Yes, specify the treatments below.*

TREATMENT / MANAGEMENT DETAILS

Treatment Type 1 ☐ Antibiotic ☐ Other	*Treatment Name*	*Date Started (mm/dd/yyyy)*	*Date Ended (mm/dd/yyyy)*
Treatment Type 2 ☐ Antibiotic ☐ Other	*Treatment Name*	*Date Started (mm/dd/yyyy)*	*Date Ended (mm/dd/yyyy)*

OUTCOME

Outcome? ☐ Survived ☐ Died ☐ Unknown	*If Survived,* *Survived as of* _____*(mm/dd/yyyy)*	*Date of Death (mm/dd/yyyy)*

LABORATORY INFORMATION

LABORATORY RESULTS SUMMARY - SERUM

Specimen Type 1 ☐ Serum (acute) ☐ Serum (convalescent)	*Type of Test* ☐ IFA ☐ CF ☐ ELISA ☐ MAT	*Test Phase* ☐ Phase I ☐ Phase II	*Antibody Type* ☐ IgM ☐ IgG	*Collection Date (mm/dd/yyyy)*
	C. burnetii Quantitative Result	*Specify Result Unit* ☐ Titer ☐ O.D.	*Interpretation* ☐ Positive ☐ Negative ☐ Equivocal	
	Laboratory Name		*Telephone Number*	
Specimen Type 2 ☐ Serum (acute) ☐ Serum (convalescent)	*Type of Test* ☐ IFA ☐ CF ☐ ELISA ☐ MAT	*Test Phase* ☐ Phase I ☐ Phase II	*Antibody Type* ☐ IgM ☐ IgG	*Collection Date (mm/dd/yyyy)*
	C. burnetii Quantitative Result	*Specify Result Unit* ☐ Titer ☐ O.D.	*Interpretation* ☐ Positive ☐ Negative ☐ Equivocal	
	Laboratory Name		*Telephone Number*	
Specimen Type 3 ☐ Serum (acute) ☐ Serum (convalescent)	*Type of Test* ☐ IFA ☐ CF ☐ ELISA ☐ MAT	*Test Phase* ☐ Phase I ☐ Phase II	*Antibody Type* ☐ IgM ☐ IgG	*Collection Date (mm/dd/yyyy)*
	C. burnetii Quantitative Result	*Specify Result Unit* ☐ Titer ☐ O.D.	*Interpretation* ☐ Positive ☐ Negative ☐ Equivocal	
	Laboratory Name		*Telephone Number*	

First three letters of patient's last name: | | | |

LABORATORY RESULTS SUMMARY - OTHER

Specimen Type 1 ☐ Blood ☐ Clinical specimen	*If Clinical specimen, specify*	*Type of Test* ☐ Culture ☐ PCR ☐ Immunostain	*Collection Date (mm/dd/yyyy)*
	Interpretation ☐ Positive ☐ Negative ☐ Equivocal	*Laboratory Name*	*Telephone Number*
Specimen Type 2 ☐ Blood ☐ Clinical specimen	*If Clinical specimen, specify*	*Type of Test* ☐ Culture ☐ PCR ☐ Immunostain	*Collection Date (mm/dd/yyyy)*
	Interpretation ☐ Positive ☐ Negative ☐ Equivocal	*Laboratory Name*	*Telephone Number*

IMAGING SUMMARY

Anatomic Site	*Date (mm/dd/yyyy)*	*Type of Imaging* ☐ X-ray ☐ CT ☐ MRI ☐ Other:_____	
Result	*Interpretation*	*Facility Name*	*Telephone Number*

EPIDEMIOLOGIC INFORMATION

INCUBATION PERIOD: 2 MONTHS PRIOR TO ILLNESS ONSET

FOOD HISTORY

DID THE PATIENT EAT OR DRINK ANY OF THE FOLLOWING ITEMS DURING THE INCUBATION PERIOD?

Food Item	Yes	No	Unk	If Yes, Specify as Noted
Unpasteurized milk				*Animal species and source*
Other unpasteurized dairy product				*Animal species and source*
Other (specify)				

ANIMAL EXPOSURES

DID THE PATIENT HAVE CONTACT WITH ANY OF THE FOLLOWING ANIMALS DURING THE INCUBATION PERIOD?

Exposure	Yes	No	Unk	If Yes, Specify as Noted
Birthing animals or birth products				*Animal species and location*
Cattle				*Exposure and geographic location*
Sheep				*Exposure and geographic location*
Goats				*Exposure and geographic location*
Pigeons				*Exposure and geographic location*
Rabbits				*Exposure and geographic location*
Cats				*Exposure and geographic location*
Other (specify animal exposure and location)				

First three letters of patient's last name: | | | |

OCCUPATIONAL / RECREATIONAL EXPOSURES

WAS PATIENT EMPLOYED IN (OR SPEND SIGNIFICANT TIME IN) ANY OF THE FOLLOWING ACTIVITIES DURING THE INCUBATION PERIOD?

Exposure	Yes	No	Unk	If Yes, Specify as Noted
Wool or felt plant				*Location*
Tannery or rendering plant				*Location*
Veterinary medicine				*Animal species and location*
Medical research				*Animal species and location*
Animal research				*Animal species and location*
Microbiology laboratory				*Location*
Dairy				*Animal species and location*
Slaughterhouse				*Animal species and location*
Animal farm / ranch				*Animal species and location*
Live in household with person occupationally related to above				*Occupation*

Other (specify exposure and geographic location)

TRAVEL HISTORY (INCUBATION PERIOD IS 2 MONTHS PRIOR TO ILLNESS ONSET)

*Did patient travel **outside county of residence** during the **incubation period**?*
☐ Yes ☐ No ☐ Unknown

If Yes, specify all locations and dates below.

TRAVEL HISTORY – DETAILS

Travel Type	**State**	**Country**	**Other location details (city, resort, etc.)**	**Date Travel Started *(mm/dd/yyyy)***	**Date Travel Ended *(mm/dd/yyyy)***
☐ Domestic ☐ Unknown ☐ International					
☐ Domestic ☐ Unknown ☐ International					
☐ Domestic ☐ Unknown ☐ International					

ILL CONTACTS

Any contacts with similar illness (including household contacts)?
☐Yes ☐No ☐Unk

If Yes, specify details below.

ILL CONTACTS - DETAILS

Name 1	*Age*	*Gender*	*Telephone Number*	*Type of Contact / Relationship*	*Date of Contact (mm/dd/yyyy)*
	Street Address			*Exposure Event*	*Illness Onset Date (mm/dd/yyyy)*
	City	*State*	*Zip Code*	*Date First Reported to Public Health (mm/dd/yyyy)*	
Name 2	*Age*	*Gender*	*Telephone Number*	*Type of Contact / Relationship*	*Date of Contact (mm/dd/yyyy)*
	Street Address			*Exposure Event*	*Illness Onset Date (mm/dd/yyyy)*
	City	*State*	*Zip Code*	*Date First Reported to Public Health (mm/dd/yyyy)*	

First three letters of patient's last name: | | | |

NOTES / REMARKS

REPORTING AGENCY

Investigator Name	*Local Health Jurisdiction*	*Telephone Number*	*Date (mm/dd/yyyy)*

First Reported By

☐ Clinician ☐ Laboratory ☐ Other (specify):_____

EPIDEMIOLOGICAL LINKAGE

Epi-linked to known case?	*Contact Name / Case Number*
☐ Yes ☐ No ☐ Unknown	

DISEASE CASE CLASSIFICATION

Disease Type (see case definition on page 7)

☐ Confirmed acute ☐ Probable acute ☐ Confirmed chronic ☐ Probable chronic

OUTBREAK

Part of known outbreak?	*If Yes, extent of outbreak:*
☐ Yes ☐ No ☐ Unknown	☐ One CA jurisdiction ☐ Multiple CA jurisdictions ☐ Multistate ☐ International ☐ Unknown ☐ Other (specify):_____

Mode of Transmission	*Vehicle of Outbreak*	*Pattern 1 ID number*	*Pattern 2 ID number*
☐ Point source ☐ Person-to-person ☐ Unknown ☐ Other:_____			

STATE USE ONLY

State Case Classification

☐ Confirmed acute ☐ Probable acute ☐ Confirmed chronic ☐ Probable chronic ☐ Not a case ☐ Need additional information

First three letters of patient's last name: | | | |

CASE DEFINITION

Q FEVER (2010)

CLINICAL PRESENTATION

ACUTE INFECTION

Acute fever usually accompanied by rigors, myalgia, malaise, and a severe retrobulbar headache. Fatigue, night-sweats, dyspnea, confusion, nausea, diarrhea, abdominal pain, vomiting, non-productive cough, and chest pain have also been reported. Severe disease can include acute hepatitis, atypical pneumonia with abnormal radiograph, and meningoencephalitis. Pregnant women are at risk for fetal death and abortion. Clinical laboratory findings may include elevated liver enzyme levels, leukocytosis, and thrombocytopenia. Asymptomatic infections may also occur.

Note: Serologic profiles of pregnant women infected with acute Q fever during gestation may progress frequently and rapidly to those characteristic of chronic infection.

CHRONIC INFECTION

Infection that persists for more than 6 months. Potentially fatal endocarditis may evolve months to years after acute infection, particularly in persons with underlying valvular disease. Infections of aneurysms and vascular prostheses have been reported. Immunocompromised individuals are particularly susceptible. Rare cases of chronic hepatitis without endocarditis, osteomyelitis, osteoarthritis, and pneumonitis have been described.

CLINICAL EVIDENCE ACUTE Q FEVER

Acute fever and one or more of the following: rigors, severe retrobulbar headache, acute hepatitis, pneumonia, or elevated liver enzyme levels.

CHRONIC Q FEVER

Newly recognized, culture-negative endocarditis, particularly in a patient with previous valvulopathy or compromised immune system, suspected infection of a vascular aneurysm or vascular prosthesis, or chronic hepatitis, osteomyelitis, osteoarthritis, or pneumonitis in the absence of other known etiology.

ACUTE Q FEVER LABORATORY EVIDENCE

LABORATORY CONFIRMED

- Serological evidence of a fourfold change in immunoglobulin G (IgG)-specific antibody titer to *C. burnetii* phase II antigen by indirect immunofluorescence assay (IFA) between paired serum samples (CDC suggests one taken during the first week of illness and a second 3-6 weeks later, antibody titers to phase I antigen may be elevated or rise as well), or
- Detection of *C. burnetii* DNA in a clinical specimen via amplification of a specific target by polymerase chain reaction (PCR) assay, or
- Demonstration of *C. burnetii* antigen in a clinical specimen by immunohistochemical methods (IHC), or
- Isolation of *C. burnetii* from a clinical specimen by culture.

LABORATORY SUPPORTIVE

- Has a single supportive IFA IgG titer of ≥ 1:128 to phase II antigen (phase I titers may be elevated as well).
- Has serologic evidence of elevated phase II IgG or IgM antibody reactive with *C. burnetii* antigen by enzyme-linked immunosorbent assay (ELISA), dot-ELISA, or latex agglutination.

Note: For acute testing, CDC uses in-house IFA IgG testing (cutoff of ≥ 1:128), preferring simultaneous testing of paired specimens, and does not use IgM results for routine diagnostic testing.

CHRONIC Q FEVER LABORATORY EVIDENCE

LABORATORY CONFIRMED

- Serological evidence of IgG antibody to *C. burnetii* phase I antigen ≥ 1:800 by IFA (while phase II IgG titer will be elevated as well; phase I titer is higher than the phase II titer), or
- Detection of *C. burnetii* DNA in a clinical specimen via amplification of a specific target by PCR assay, or
- Demonstration of *C. burnetii* antigen in a clinical specimen by IHC, or
- Isolation of *C. burnetii* from a clinical specimen by culture.

LABORATORY SUPPORTIVE

- Has an antibody titer to *C. burnetii* phase I IgG antigen ≥ 1:128 and < 1:800 by IFA.

Note: Samples from suspected chronic patients should be evaluated for IgG titers to both phase I and phase II antigens. Current commercially available ELISA tests (which test only for phase II) are not quantitative, cannot be used to evaluate changes in antibody titer, and hence are not useful for serological confirmation. IgM tests are not strongly supported for use in serodiagnosis of acute disease, as the response may not be specific for the agent (resulting in false positives) and the IgM response may be persistent. Complement fixation (CF) tests and other older test methods are neither readily available nor commonly used.

Serologic test results must be interpreted with caution, because baseline antibodies acquired as a result of historical exposure to Q fever may exist, especially in rural and farming areas.

(continued on page 8)

First three letters of patient's last name: | | | |

CASE DEFINITION (continued)

EXPOSURE

Exposure is usually via aerosol, is broadly interpreted, and may be unknown (especially for chronic infection), but often includes the presence of goats, sheep, or other livestock, especially during periods of parturition. Direct contact with animals is not required, and variable incubation periods may be dose dependent.

CASE CLASSIFICATION

- **Confirmed Acute Q Fever:** A laboratory confirmed case that either meets clinical case criteria or is epidemiologically linked to a lab confirmed case.
- **Probable Acute Q Fever:** A clinically compatible case of acute illness (meets clinical evidence criteria for acute Q fever illness) that has laboratory supportive results for past or present acute disease (antibody to Phase II antigen) but is not laboratory confirmed.
- **Confirmed Chronic Q Fever:** A clinically compatible case of chronic illness (meets clinical evidence criteria for chronic Q fever) that is laboratory confirmed for chronic infection.
- **Probable Chronic Q Fever:** A clinically compatible case of chronic illness (meets clinical evidence criteria for chronic Q fever) that has laboratory supportive results for past or present chronic infection (antibody to Phase I antigen).

RACE DESCRIPTIONS

Race	Description
American Indian or Alaska Native	Patient has origins in **any** of the original peoples of North and South America (including Central America).
Asian	Patient has origins in **any** of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent (e.g., including Bangladesh, Cambodia, China, India, Indonesia, Japan, Korea, Malaysia, Nepal, Pakistan, the Philippine Islands, Thailand, and Vietnam).
Black or African American	Patient has origins in **any** of the black racial groups of Africa.
Native Hawaiian or Other Pacific Islander	Patient has origins in **any** of the original peoples of Hawaii, Guam, American Samoa, or other Pacific Islands.
White	Patient has origins in **any** of the original peoples of Europe, the Middle East, or North Africa.

ASIAN GROUPS

- Bangladeshi
- Bhutanese
- Burmese
- Cambodian
- Chinese
- Filipino
- Hmong
- Indian
- Indonesian
- Iwo Jiman
- Japanese
- Korean
- Laotian
- Madagascar
- Malaysian
- Maldivian
- Nepalese
- Okinawan
- Pakistani
- Singaporean
- Sri Lankan
- Taiwanese
- Thai
- Vietnamese

NATIVE HAWAIIAN AND OTHER PACIFIC ISLANDER GROUPS

- Carolinian
- Chamorro
- Chuukese
- Fijian
- Guamanian
- Kiribati
- Kosraean
- Mariana Islander
- Marshallese
- Melanesian
- Micronesian
- Native Hawaiian
- New Hebrides
- Palauan
- Papua New Guinean
- Pohnpeian
- Polynesian
- Saipanese
- Samoan
- Solomon Islander
- Tahitian
- Tokelauan
- Tongan
- Yapese

First three letters of patient's last name: | | | |

OCCUPATION SETTING

- Childcare/Preschool
- Correctional Facility
- Drug Treatment Center
- Food Service
- Health Care - Acute Care Facility
- Health Care - Long Term Care Facility
- Health Care - Other
- Homeless Shelter
- Laboratory
- Military Facility
- Other Residential Facility
- Place of Worship
- School
- Other

OCCUPATION

- Agriculture - farmworker or laborer (crop, nursery, or greenhouse)
- Agriculture - field worker
- Agriculture - migratory/seasonal worker
- Agriculture - other/unknown
- Animal - animal control worker
- Animal - farm worker or laborer (farm or ranch animals)
- Animal - veterinarian or other animal health practitioner
- Animal - other/unknown
- Clerical, office, or sales worker
- Correctional facility - employee
- Correctional facility - inmate
- Craftsman, foreman, or operative
- Daycare or child care attendee
- Daycare or child care worker
- Dentist or other dental health worker
- Drug dealer
- Fire fighting or prevention worker
- Flight attendant
- Food service - cook or food preparation worker
- Food service - host or hostess
- Food service - waiter or waitress
- Food service - other/unknown
- Homemaker
- Laboratory technologist or technician
- Laborer - private household or unskilled worker
- Manager, official, or proprietor
- Manicurist or pedicurist
- Medical - emergency medical technician or paramedic
- Medical - health care worker
- Medical - medical assistant
- Medical - pharmacist
- Medical - physician assistant or nurse practitioner
- Medical - physician or surgeon
- Medical - registered nurse
- Medical - other/unknown
- Military - officer
- Military - recruit or trainee
- Protective service - police officer
- Protective service - other
- Professional, technical, or related profession
- Retired
- Sex worker
- Student - preschool or kindergarten
- Student - elementary or middle school
- Student - high (secondary) school
- Student - college or university
- Student - other/unknown
- Teacher/employee - preschool or kindergarten
- Teacher/employee - elementary or middle school
- Teacher/employee - high (secondary) school
- Teacher/instructor/employee - college or university
- Teacher/instructor/employee - other/unknown
- Unemployed - seeking employment
- Unemployed - not seeking employment
- Unemployed - other/unknown
- Other
- Refused
- Unknown