State of California—Health and Human Services Agency

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

Local ID Number: _____

LEPTOSPIROSIS 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 8)	*Other Describe/Specify*

Occupation (see list on page 8)	*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 7)

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 7)*
- ☐ 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 7)*
- ☐ 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	Signs and Symptoms	Yes	No	Unk
Fever *If Yes, highest temperature:_____ specify °F/°C*				Icterus			
Headache				Uremia			
Chills				Abdominal pain			
Myalgia				Vomiting			
Conjunctivitis				Diarrhea			
Photophobia, uveitis				Hemorrhage			
Meningitis				Respiratory insufficiency			
Rash *If Yes, location of rash: _____*				*Other signs / symptoms (specify)*			

HOSPITALIZATION

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

Was the 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 treatment below.*

TREATMENT / MANAGEMENT - DETAILS

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

OUTCOME

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

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

LABORATORY INFORMATION

LABORATORY RESULTS SUMMARY

Specimen Type 1 ☐ Serum ☐ Other: _____	*Collection Date (mm/dd/yyyy)*	*Laboratory Name*	*Telephone Number*

If Serum, Type of Test 1
☐ Microscopic Agglutination Test (MAT)
☐ Indirect Immunofluorescence (IFA)
☐ Complement Fixation (CF)
☐ Indirect Hemagglutination Assay (IHA)
☐ ELISA/EIA
☐ Unspecified/Other: _____

Antibody type and titer
☐ IgG _____ ☐ IgM _____ ☐ Unspecified: _____

Interpretation
☐ Positive ☐ Negative ☐ Equivocal

Serovar
☐ Canicola ☐ Icterohemorrhagiae ☐ Pomona ☐ Other serovar:_____ ☐ Unspecified

If Other specimen, Type of Test 1
☐ Direct Immunofluorescence (DFA)
☐ Darkfield Microscopy
☐ Polymerase Chain Reaction (PCR)
☐ Culture
☐ Other: _____

Result

Interpretation
☐ Positive ☐ Negative ☐ Equivocal

Specimen Type 2 ☐ Serum ☐ Other: _____	*Collection Date (mm/dd/yyyy)*	*Laboratory Name*	*Telephone Number*

If Serum, Type of Test 2
☐ Microscopic Agglutination Test (MAT)
☐ Indirect Immunofluorescence (IFA)
☐ Complement Fixation (CF)
☐ Indirect Hemagglutination Assay (IHA)
☐ ELISA/EIA
☐ Unspecified/Other: _____

Antibody type and titer
☐ IgG _____ ☐ IgM _____ ☐ Unspecified: _____

Interpretation
☐ Positive ☐ Negative ☐ Equivocal

Serovar
☐ Canicola ☐ Icterohemorrhagiae ☐ Pomona ☐ Other serovar:_____ ☐ Unspecified

If Other specimen, Type of Test 2
☐ Direct Immunofluorescence (DFA)
☐ Darkfield Microscopy
☐ Polymerase Chain Reaction (PCR)
☐ Culture
☐ Other: _____

Result

Interpretation
☐ Positive ☐ Negative ☐ Equivocal

Specimen Type 3 ☐ Serum ☐ Other: _____	*Collection Date (mm/dd/yyyy)*	*Laboratory Name*	*Telephone Number*

If Serum, Type of Test 3
☐ Microscopic Agglutination Test (MAT)
☐ Indirect Immunofluorescence (IFA)
☐ Complement Fixation (CF)
☐ Indirect Hemagglutination Assay (IHA)
☐ ELISA/EIA
☐ Unspecified/Other: _____

Antibody type and titer
☐ IgG _____ ☐ IgM _____ ☐ Unspecified: _____

Interpretation
☐ Positive ☐ Negative ☐ Equivocal

Serovar
☐ Canicola ☐ Icterohemorrhagiae ☐ Pomona ☐ Other serovar:_____ ☐ Unspecified

If Other specimen, Type of Test 3
☐ Direct Immunofluorescence (DFA)
☐ Darkfield Microscopy
☐ Polymerase Chain Reaction (PCR)
☐ Culture
☐ Other: _____

Result

Interpretation
☐ Positive ☐ Negative ☐ Equivocal

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

EPIDEMIOLOGIC INFORMATION

EXPOSURES / RISK FACTORS

CONTACT WITH THE FOLLOWING DURING THE 30 DAYS PRIOR TO ONSET

	Yes	No	Unk	If Yes, Specify as Noted	
Bodies of water, natural (e.g., lakes, rivers)				*Activity*	*Location*
Bodies of water, temporary (e.g., lagoons, flood waters)				*Activity*	*Location*
Other untreated water (e.g., sewage)				*Activity*	*Location*
Farm, agriculture				*Activity*	*Location*
Farm, livestock				*Activity*	*Location*
Other exposure or activity				*Activity*	*Location*
Occupation at Date of Onset				*Kind of Business or Industry*	

ANIMAL CONTACTS

Animal Contact 1 ☐ Cattle ☐ Dogs ☐ Rats/rodents ☐ Other: _____	*Type of Exposure*		*Place of Exposure*
	Date of Exposure (mm/dd/yyyy)	*Was the animal ill?* ☐ Yes ☐ No ☐ Unknown	*Illness Summary*
	Seen by Veterinarian? ☐ Yes ☐ No ☐ Unknown	*Name of Veterinarian*	*Address of Veterinarian*
Animal Contact 2 ☐ Cattle ☐ Dogs ☐ Rats/rodents ☐ Other: _____	*Type of Exposure*		*Place of Exposure*
	Date of Exposure (mm/dd/yyyy)	*Was the animal ill?* ☐ Yes ☐ No ☐ Unknown	*Illness Summary*
	Seen by Veterinarian? ☐ Yes ☐ No ☐ Unknown	*Name of Veterinarian*	*Address of Veterinarian*

TRAVEL HISTORY

*Did the 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					

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

CONTACTS / OTHER ILL PERSONS

Any contacts with similar illness? ☐ Yes ☐ No ☐ Unknown	If Yes, specify details below.

ILL CONTACTS - DETAILS

Name 1	Age	Gender	Telephone Number		Type of Contact / Relationship	Illness Onset Date (mm/dd/yyyy)
	Street Address				Exposure Dates Shared with Index Case (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	Illness Onset Date (mm/dd/yyyy)
	Street Address				Exposure Dates Shared with Index Case (mm/dd/yyyy)	
	City		State	Zip Code	Date First Reported to Public Health (mm/dd/yyyy)	

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? ☐ Yes ☐ No ☐ Unknown	Contact Name / Case Number

DISEASE CASE CLASSIFICATION

Case Classification (see case definition on page 6)
☐ Confirmed ☐ Probable

OUTBREAK

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

Mode of Transmission ☐ Point source ☐ Person-to-person ☐ Unknown ☐ Other (specify):____	Vehicle of Outbreak	Pattern 1 ID Number	Pattern 2 ID Number

STATE USE ONLY

State Case Classification
☐ Confirmed ☐ Probable ☐ Not a case ☐ Need additional information

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

CASE DEFINITION

LEPTOSPIROSIS (2013)

CLINICAL CRITERIA

An illness characterized by fever, headache, and myalgia, and less frequently by conjunctival suffusion, meningitis, rash, jaundice, or renal insufficiency. Symptoms may be biphasic.

Clinical presentation includes history of fever within the past two weeks and at least two of the following clinical findings: myalgia, headache, jaundice, conjunctival suffusion without purulent discharge, or rash (i.e. maculopapular or petechial); OR at least one of the following clinical findings:

- Aseptic meningitis
- GI symptoms (e.g., abdominal pain, nausea, vomiting, diarrhea)
- Pulmonary complications (e.g., cough, breathlessness, hemoptysis)
- Cardiac arrhythmias, ECG abnormalities
- Renal insufficiency (e.g., anuria, oliguria)
- Hemorrhage (e.g., intestinal, pulmonary, hematuria, hematemesis)
- Jaundice with acute renal failure

LABORATORY CRITERIA FOR DIAGNOSIS

Diagnostic testing should be requested for patients in whom there is a high index of suspicion for leptospirosis, based either on signs and symptoms, or on occupational, recreational or vocational exposure to animals or environments contaminated with animal urine.

Supportive:

- *Leptospira* agglutination titer of ≥ 200 but < 800 by Microscopic Agglutination Test (MAT) in one or more serum specimens, or
- Demonstration of anti-*Leptospira* antibodies in a clinical specimen by indirect immunofluorescence, or
- Demonstration of *Leptospira* in a clinical specimen by darkfield microscopy, or
- Detection of IgM antibodies against *Leptospira* in an in acute phase serum specimen.

Confirmed:

- Isolation of *Leptospira* from a clinical specimen, or
- Fourfold or greater increase in *Leptospira* agglutination titer between acute- and convalescent-phase serum specimens studied at the same laboratory, or
- Demonstration of *Leptospira* in tissue by direct immunofluorescence, or
- *Leptospira* agglutination titer of ≥ 800 by Microscopic Agglutination Test (MAT) in one or more serum specimens, or
- Detection of pathogenic *Leptospira* DNA (e.g., by PCR) from a clinical specimen.

EPIDEMIOLOGIC LINKAGE

Involvement in an exposure event (e.g., adventure race, triathlon, flooding) with associated laboratory-confirmed cases.

CASE CLASSIFICATION

Probable**:** A clinically compatible case with at least one of the following:

- Involvement in an exposure event (e.g., adventure race, triathlon, flooding) with known associated cases, or
- Presumptive laboratory findings, but without confirmatory laboratory evidence of *Leptospira* infection.

Confirmed**:** A case with confirmatory laboratory results, as listed above.

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

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