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

LYME DISEASE 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)	Duration of Acute Symptoms (days)

Signs and Symptoms	Yes	No	Unk	If Yes, Specify as Noted		
Erythema migrans (EM)				Onset date (mm/dd/yyyy)	Location on body	EM size at examination, diameter (cm)
Brief recurrent attacks of swelling in one or a few joints				Onset date (mm/dd/yyyy)	Joint(s) affected	
Chronic progressive arthritis not preceded by brief attacks				Onset date (mm/dd/yyyy)		
Facial (VII) palsy or other cranial neuropathy				Onset date (mm/dd/yyyy)		
Radiculoneuropathy				Onset date (mm/dd/yyyy)		
Paresthesias, dysesthesias				Onset date (mm/dd/yyyy)		
Lymphocytic meningitis				Onset date (mm/dd/yyyy)		
Encephalomyelitis				Onset date (mm/dd/yyyy)		
Second or third degree atrioventricular block				Onset date (mm/dd/yyyy)		
Myocarditis				Onset date (mm/dd/yyyy)		
Other signs / symptoms (specify)				Onset date (mm/dd/yyyy)		

PAST MEDICAL HISTORY

Prior Lyme disease diagnosis? ☐ Yes ☐ No ☐ Unknown	Specify diagnosis date(s) (mm/dd/yyyy)

PAST MEDICAL HISTORY - OTHER

Specify

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

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

TREATMENT / MANAGEMENT

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

TREATMENT / MANAGEMENT DETAILS

Treatment Type 1 ☐ Antibiotic ☐ Other	*If Antibiotic, specify route*	*Treatment Name*	*Date Started (mm/dd/yyyy)*	*Date Ended (mm/dd/yyyy)*
Treatment Type 2 ☐ Antibiotic ☐ Other	*If Antibiotic, specify route*	*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 (Copies of laboratory reports must be included with case history.)

LABORATORY RESULTS SUMMARY

Specimen Type	*Collection Date (mm/dd/yyyy)*	*Laboratory Name*	*Telephone Number*

Type of Test	Specify Test Results as Noted		
EIA / IFA First Tier (standard two-tier or modified two-tier) ☐ EIA ☐ IFA ☐ Not done	*Antibody* ☐ IgG ☐ IgM ☐ Total ☐ Unspecified ☐ Other: _____	*Specify titer or OD value*	*Interpretation* ☐ Positive ☐ Negative ☐ Equivocal ☐ Unknown ☐ Pending
EIA second tier (modified two-tier) ☐ EIA ☐ Not done	*Antibody* ☐ IgG ☐ IgM ☐ Total ☐ Unspecified ☐ Other: _____	*Specify titer or OD value*	*Interpretation* ☐ Positive ☐ Negative ☐ Equivocal ☐ Unknown ☐ Pending
IgM Western Immunoblot ☐ Done ☐ Not done	*Specify Bands Present* ☐ 21-24 ☐ 39 ☐ 41		*Interpretation* ☐ Positive ☐ Negative ☐ Equivocal ☐ Unknown ☐ Pending
IgG Western Immunoblot ☐ Done ☐ Not done	*Specify Bands Present* ☐ 18-20 ☐ 21-24 ☐ 28 ☐ 30 ☐ 35 ☐ 39 ☐ 41 ☐ 45 ☐ 58 ☐ 66 ☐ 88 ☐ 93		*Interpretation* ☐ Positive ☐ Negative ☐ Equivocal ☐ Unknown ☐ Pending
B. burgdorferi, B. mayonii specific NAAT assay ☐ Done ☐ Not done	*Interpretation* ☐ Positive ☐ Negative ☐ Equivocal ☐ Unknown ☐ Pending		
IHC on biopsy tissue ☐ Done ☐ Not done	*Specify tissue*	*Interpretation* ☐ Positive ☐ Negative ☐ Equivocal ☐ Unknown ☐ Pending	
Other test	*Specify Test(s)*	*Result(s)*	

EPIDEMIOLOGIC INFORMATION

INCUBATION PERIOD: 30 DAYS PRIOR TO ILLNESS ONSET

EXPOSURES/RISK FACTORS

DID THE PATIENT PARTICIPATE IN ANY OUTDOOR ACTIVITIES IN WOODED, BRUSHY, OR GRASSYAREAS DURING THE INCUBATION PERIOD?

Outdoor Activity 1 ☐ Hiking, camping, picnicking ☐ Other recreational ☐ Occupational / non-recreational	*Describe Activity*	
	Location	*Date (mm/dd/yyyy)*
Outdoor Activity 2 ☐ Hiking, camping, picnicking ☐ Other recreational ☐ Occupational / non-recreational	*Describe Activity*	
	Location	*Date (mm/dd/yyyy)*
Outdoor Activity 3 ☐ Hiking, camping, picnicking ☐ Other recreational ☐ Occupational / non-recreational	*Describe Activity*	
	Location	*Date (mm/dd/yyyy)*

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

EXPOSURES/RISK FACTORS - TICK BITE

Tick bite during incubation period? ☐ Yes ☐ No ☐ Unknown	*If Yes, describe*	*Date Noticed (mm/dd/yyyy)*
Where (county, habitat)?	*Where (anatomic)?*	*Approximate Duration of Attachment*

NOTES / REMARKS

REPORTING AGENCY

Investigator Name	*Local Health Jurisdiction*	*Telephone Number*	*Date (mm/dd/yyyy)*
Date First Reported to Public Health (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 5)
☐ Confirmed ☐ Probable ☐ Suspected

STATE USE ONLY

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

CASE DEFINITION

LYME DISEASE (2022)

CLINICAL CRITERIA

An illness characterized by one of the following early or late-stage manifestations, *as reported by a healthcare provider*, and in the absence of another known etiology:

- *Erythema migrans (EM) rash*. For purposes of surveillance, EM is defined as a skin lesion (observed by a healthcare provider) that typically begins as a red macule or papule and expands over a period of days to weeks to form a large round lesion, often with partial central clearing. A single primary lesion must reach a size of ≥5 cm in diameter.

Note: Secondary lesions also may occur.

- *Musculoskeletal system.* Recurrent, brief attacks (weeks or months) of objective joint swelling in one or a few joints.

Note: Objective joint swelling may sometimes be followed by chronic arthritis in one or a few joints.

- *Nervous system.* Any of the following signs that cannot be explained by any other etiology, alone or in combination: lymphocytic meningitis; cranial neuritis, particularly facial palsy (unilateral or bilateral); radiculoneuropathy; or, rarely, encephalomyelitis.
- *Cardiovascular system.* Acute onset of high-grade (2nd-degree or 3rd-degree) atrioventricular conduction defects that resolve in days to weeks.

Note: Atrioventricular conduction defects may sometimes be associated with myocarditis.

LABORATORY CRITERIA

For the purposes of surveillance, laboratory evidence includes:

Confirmatory laboratory evidence:

1. Isolation of *B. burgdorferi* sensu stricto or *B. mayonii* in culture, **OR**
2. Detection of *B. burgdorferi* sensu stricto or *B. mayonii* in a clinical specimen by a *B. burgdorferi* group-specific nucleic acid amplification test (NAAT) assay, **OR**
3. Detection of *B. burgdorferi* group-specific antigens by immunohistochemical assay on biopsy or autopsy tissues, **OR**
4. Positive serologic tests[1] in a two-tier or equivalent format, including:
    a. Standard two-tier test (STTT): a positive or equivocal first-tier screening assay, often an enzyme immunoassay [EIA] or immunofluorescence assay [IFA] for immunoglobulin M (IgM), immunoglobulin G (IgG), or a combination of immunoglobulins, followed by a concordant positive IgM[2] or IgG[3] immunoblot interpreted according to established criteria, **OR**
    b. Modified two-tier test (MTTT): positive or equivocal first-tier screen, followed by a different, sequential positive or equivocal EIA in lieu of an immunoblot as a second-tier test[4].

Presumptive laboratory evidence:

1. Positive IgG immunoblot[5], interpreted according to established criteria[3], without positive or equivocal first-tier screening assay.

Note: The categorical labels used here to stratify laboratory evidence are intended to support the standardization of case classifications for public health surveillance. The categorical labels should not be used to interpret the utility or validity of any laboratory test methodology.

CRITERIA TO DISTINGUISH A NEW CASE FROM AN EXISTING CASE

A new case is one that has not been reported within the same calendar year (January through December).**

** Using calendar year allows case counting which more closely corresponds with the seasonality of Lyme disease than using a number of months between case reports.

(continued on page 6)

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

CASE DEFINITION (continued)

CASE CLASSIFICATION

Suspect

High-incidence jurisdictions (as defined in Case Classification Comments below)

- A case that meets presumptive laboratory evidence.

Low-incidence jurisdictions (as defined in Case Classification Comments below)

- A case that meets confirmatory or presumptive laboratory criteria, but no clinical information is available, **OR**
- A case of *erythema migrans* rash with no laboratory evidence of infection.

Probable

High-incidence jurisdictions (as defined in Case Classification Comments below)

- A case that meets confirmatory laboratory evidence.

Low-incidence jurisdictions (as defined in Case Classification Comments below)

- A clinically compatible case that meets presumptive laboratory criteria.

Confirmed

High-incidence jurisdictions (as defined in Case Classification Comments below)

- N/A

Low-incidence jurisdictions (as defined in Case Classification Comments below)

- A clinically compatible case that meets confirmatory laboratory criteria.

Note: This CSTE case definition is intended solely for public health surveillance purposes and does not recommend diagnostic criteria for clinical partners to utilize in diagnosing patients with potential Lyme Disease.

CASE CLASSIFICATION COMMENTS

High-incidence jurisdictions are those that have had an average Lyme disease incidence of ≥10 confirmed cases/100,000 population for a period of three consecutive years. At the time of CSTE position statement 21-ID-05 (spring 2021), those jurisdictions were: Connecticut, Delaware, Maine, Maryland, Massachusetts, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, West Virginia, Wisconsin, and the District of Columbia (http://www.cdc.gov/lyme/stats/tables.html).

Low-incidence jurisdictions are those that have not had an average Lyme disease incidence of ≥10 confirmed cases/100,000 population for a period of three consecutive years. Once ≥10 confirmed cases/100,000 population have been observed in a low-incidence jurisdiction for a period of three consecutive years, they become a high-incidence jurisdiction for the purposes of surveillance and should permanently switch reporting criteria.

For determining incidence for case classification and reporting purposes, calculations should be made at the state or territory level. Case classification for reporting should not be differentially applied at the subdivision level.

A clinically compatible case is defined as a case that meets the clinical criteria defined 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