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: _____

MALARIA
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 7)	*Other Describe/Specify*

Occupation (see list on page 7)	*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 6)

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 6)*
- ☐ 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 6)*
- ☐ Native Hawaiian
- ☐ Fijian
- ☐ Guamanian
- ☐ Samoan
- ☐ Tongan
- ☐ 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)
Headache				
Abdominal pain				
Chills				
Sweats				
Myalgia				

Other signs / symptoms (specify)

PAST MEDICAL HISTORY

Has the patient previously been diagnosed with malaria? ☐ Yes ☐ No ☐ Unknown	Previous Diagnosis ☐ P. falciparum ☐ P. malariae ☐ Not determined ☐ P. vivax ☐ P. ovale ☐ Unknown	Date of Previous Illness (mm/dd/yyyy)

Did the patient have a blood transfusion or transplant within the last 12 months? ☐ Yes ☐ No ☐ Unknown	If Yes, specify

CLINICAL COMPLICATIONS FOR THIS ATTACK

Cerebral malaria? ☐ Yes ☐ No ☐ Unknown	If Yes, specify	Anemia (hemoglobin [Hb] <7g/dL)? ☐ Yes ☐ No ☐ Unknown	If Yes, specify
Spleen rupture? ☐ Yes ☐ No ☐ Unknown	If Yes, specify	Acute kidney injury? ☐ Yes ☐ No ☐ Unknown	If Yes, specify
ARDS pulmonary edema? ☐ Yes ☐ No ☐ Unknown	If Yes, specify	High parasitemia (≥5%)? ☐ Yes ☐ No ☐ Unknown	If Yes, 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

Therapy for this attack

☐ Mefloquine	☐ Quinine	☐ Atovaquone-proguanil (Malarone™)
☐ Chloroquine	☐ Quinidine	☐ Artesunate
☐ Primaquine	☐ Exchange transfusion	☐ Other:_____
☐ Tetracycline/doxycycline	☐ Pyrimethamine-sulfadoxine	☐ Unknown

OUTCOME

Outcome?
☐ Survived ☐ Died ☐ Unknown

If Survived,
Survived as of _____*(mm/dd/yyyy)*

Date of Death (mm/dd/yyyy)

MALARIA CHEMOPROPHYLAXIS

Was malaria chemoprophylaxis taken?
☐ Yes ☐ No ☐ Unknown

Drugs Taken
☐ Chloroquine ☐ Doxycycline ☐ Atovaquone-proguanil (Malarone™)
☐ Mefloquine ☐ Primaquine ☐ Other (specify):_____

Were all pills taken as prescribed?
☐ Yes, missed no doses
☐ No, missed one to few doses
☐ No, missed more than a few, but less than half of the doses
☐ No, missed half or more of the doses
☐ Don't know
☐ Other (specify):_____

If doses were missed, what was the reason?
☐ Forgot
☐ Didn't think needed
☐ Had a side effect
☐ Was advised by others to stop
☐ Prematurely stopped taking once home

If had a side effect, specify

LABORATORY INFORMATION

LABORATORY RESULTS SUMMARY

Microscopy of Blood Smear
☐ Positive ☐ Negative
☐ Not done ☐ Unknown

If Positive, specify
☐ *P. falciparum* ☐ *P. vivax* ☐ *P. malariae* ☐ *P. ovale* ☐ Not determined ☐ Unknown

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

PCR of Blood
☐ Positive ☐ Negative
☐ Not done ☐ Unknown

If Positive, specify
☐ *P. falciparum* ☐ *P. vivax* ☐ *P. malariae* ☐ *P. ovale* ☐ Not determined ☐ Unknown

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

Rapid Diagnostic Test (RDT)
☐ Positive ☐ Negative
☐ Not done ☐ Unknown

If Positive, specify
☐ *P. falciparum* ☐ *P. vivax, malariae, or ovale* ☐ Mixed infection (*P. falciparum* and *P. vivax*, *malariae,* or *ovale)*

Specify RDT
☐ BinaxNOW™ ☐ Other (specify):_____

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

EPIDEMIOLOGIC INFORMATION

INCUBATION PERIOD IS 30 DAYS PRIOR TO ILLNESS ONSET

TRAVEL HISTORY

Did patient travel ***out of county of residence*** *during the* ***three months*** *prior to illness onset?*
☐ Yes ☐ No ☐ Unknown

If No, did patient travel out of county of residence during the ***three years*** *prior to illness onset?*
☐ Yes ☐ No ☐ Unknown

If Yes for one of these questions, answer the following two questions, and specify all locations and dates in the Travel History - Details table (see on page 4).

Principal Reason for Travel from/to U.S. for Most Recent Trip

☐ Tourism	☐ Visiting friends/relatives	☐ Refugee/immigrant
☐ Military	☐ Airlines/ship crew	☐ Student/teacher
☐ Peace Corps	☐ Missionary or dependent	☐ Other:_____

Did patient reside in U.S. prior to most recent travel?
☐ Yes, for > 12 months
☐ Yes, for < 12 months ☐ Unknown
☐ No, specify country:_____

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

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					

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 below)

☐ Confirmed ☐ Suspect

STATE USE ONLY

State Case Classification

☐ Confirmed ☐ Suspect ☐ Not a case ☐ Need additional information

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

CASE DEFINITION

MALARIA (2014)

CLINICAL DESCRIPTION

The first symptoms of malaria (most often fever, chills, sweats, headaches, muscle pains, nausea and vomiting) are often not specific and are also found in other diseases (such as influenza and other common viral infections). Likewise, the physical findings are often not specific (elevated temperature, perspiration, tiredness). In severe malaria (caused by *P. falciparum*), clinical findings (confusion, coma, neurologic focal signs, severe anemia, respiratory difficulties) are more striking and may increase the suspicion index for malaria.

LABORATORY CRITERIA FOR DIAGNOSIS

- Detection of circulating malaria-specific antigens using rapid diagnostic test (RDT), **OR**
- Detection of species specific parasite DNA in a sample of peripheral blood using a Polymerase Chain Reaction (PCR) test. (Note: Laboratory-developed malaria PCR tests must fulfill Clinical Laboratory Improvement Amendments [CLIA] requirements, including validation studies), **OR**
- Detection of malaria parasites in thick or thin peripheral blood films, determining the species by morphologic criteria, and calculating the percentage of red blood cells infected by asexual malaria parasites (parasitemia).

CRITERIA TO DISTINGUISH A NEW CASE FROM AN EXISTING CASE

A subsequent attack experienced by the same person but caused by a different *Plasmodium* species is counted as an additional case.

A subsequent attack experienced by the same person and caused by the same species in the United States may indicate a relapsing infection or treatment failure caused by drug resistance or a separate attack.

CASE CLASSIFICATION

Suspected

- Detection of *Plasmodium* species by rapid diagnostic antigen testing without confirmation by microscopy or nucleic acid testing in any person (symptomatic or asymptomatic) diagnosed in the United States, regardless of whether the person experienced previous episodes of malaria while outside the country.

Confirmed

- Detection and specific identification of malaria parasite species by microscopy on blood films in a laboratory with appropriate expertise in any person (symptomatic or asymptomatic) diagnosed in the United States, regardless of whether the person experienced previous episodes of malaria while outside the country, **OR**
- Detection of *Plasmodium* species by nucleic acid test* in any person (symptomatic or asymptomatic) diagnosed in the United States, regardless of whether the person experienced previous episodes of malaria while outside the country, **OR**
- Detection of unspeciated malaria parasite by microscopy on blood films in a laboratory with appropriate expertise in any person (symptomatic or asymptomatic) diagnosed in the United States, regardless of whether the person experienced previous episodes of malaria while outside the country.

* Laboratory-developed malaria PCR tests must fulfill CLIA requirements, including validation studies.

CASE CLASSIFICATION COMMENTS

Clinical samples including Blood smears or EDTA whole blood from all cases can be referred to the CDC Division of Parasitic Diseases and Malaria Diagnostic Laboratory for confirmation of the diagnosis and antimalarial drug resistance testing. Any questionable cases should be referred to the CDC Division of Parasitic Diseases and Malaria Diagnostic Laboratory for confirmation of the diagnosis.

COMMENTS

Blood smears from questionable cases should be referred to the CDC Division of Parasitic Diseases Diagnostic Laboratory for confirmation of the diagnosis.

Cases also are classified according to the following World Health Organization categories:

- Autochthonous:
  - *Indigenous:* malaria acquired by mosquito transmission in an area where malaria is a regular occurrence
  - *Introduced:* malaria acquired by mosquito transmission from an imported case in an area where malaria is not a regular occurrence
- *Imported:* malaria acquired outside a specific area (e.g., the United States and its territories)
- *Induced:* malaria acquired through artificial means (e.g., blood transfusion, common syringes, or malariotherapy)
- *Relapsing:* Recurrence of disease after it has been apparently cured. In malaria, true relapses are caused by reactivation of dormant liver-stage parasites (hypnozoites) of *P. vivax* and *P. ovale*.
- *Cryptic:* an isolated case of malaria that cannot be epidemiologically linked to additional cases.

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