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 _____

(*Please use the same ID Number on the preliminary and final reports to allow linkage to the same case.)*

*Report Status (check one)*
☐Preliminary ☐Final

# 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* |
|---|---|---|
| | | |

| *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* |
|---|---|---|
| | | |

*Gender*
☐Male ☐Female ☐Other: _____

| *E-mail Address* | *Other Electronic Contact Information* |
|---|---|
| | |

| *Work/School Location* | *Work/School Contact* |
|---|---|
| | |

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

| *Medical Record Number* | *If not U.S. Born - Date of Arrival in U.S. (mm/dd/yyyy)* |
|---|---|
| | |

| *Occupation Setting (see list on page 6)* | *Other Describe/Specify* |
|---|---|
| | |

| *Occupation (see list on page 6)* | *Other Describe/Specify* |
|---|---|
| | |

*Primary Language*
☐English
☐Spanish
☐Other:_____

*Ethnicity (check one)*
☐Hispanic/Latino
☐Non-Hispanic/Non-Latino
☐Unk

*Race**
*(check all that apply, race descriptions on page 6)*
☐African-American/Black
☐American Indian or Alaska Native
☐Asian *(check all that apply)*
- ☐Asian Indian ☐Japanese
- ☐Cambodian ☐Korean
- ☐Chinese ☐Laotian
- ☐Filipino ☐Thai
- ☐Hmong ☐Vietnamese
- ☐Other:_____

☐Pacific Islander *(check all that apply)*
- ☐Native Hawaiian ☐Samoan
- ☐Guamanian
- ☐Other:_____

☐White
☐Other:_____
☐Unk

*Comment: self-identity or self-reporting
*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.*

## CLINICAL INFORMATION

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

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

## SIGNS AND SYMPTOMS

| *Symptomatic?* ☐Yes ☐No ☐Unk | *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 ☐Unk | *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 ☐Unk | *If Yes, specify* |
|---|---|

## CLINICAL COMPLICATIONS FOR THIS ATTACK

| | |
|---|---|
| *Cerebral malaria?* ☐Yes ☐No ☐Unk | *If Yes, specify* |
| *Spleen rupture?* ☐Yes ☐No ☐Unk | *If Yes, specify* |
| *ARDS pulmonary edema?* ☐Yes ☐No ☐Unk | *If Yes, specify* |
| *Anemia (Hb<11, Hct<33)?* ☐Yes ☐No ☐Unk | *If Yes, specify* |

## HOSPITALIZATION

| *Did patient visit emergency room for illness?* ☐Yes ☐No ☐Unk | *Was patient hospitalized?* ☐Yes ☐No ☐Unk | *If Yes, how many total hospital nights?* |
|---|---|---|

*If there were any ER or hospital stays related to this illness, specify details 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: | | | |

## OUTCOME

| Outcome? | If Survived, | Date of Death (mm/dd/yyyy) |
|---|---|---|
| ☐Survived ☐Died ☐Unk | Survived as of _____(mm/dd/yyyy) | |

## TREATMENT / MANAGEMENT

| Received treatment? | Therapy for this attack | | | |
|---|---|---|---|---|
| ☐Yes ☐No ☐Unk | ☐Chloroquine | ☐Primaquine | ☐Pyrimethamine-sulfadoxine | ☐Unk |
| | ☐Mefloquine | ☐Atovaquone-proguanil (Malarone™) | ☐Exchange transfusion | |
| | ☐Tetracycline/doxycycline | ☐Quinine/quinidine | ☐Other:_____ | |

## MALARIA CHEMOPROPHYLAXIS

| Was malaria chemoprophylaxis taken? | Drugs Taken | | |
|---|---|---|---|
| ☐Yes ☐No ☐Unk | ☐Chloroquine | ☐Doxycycline | ☐Atovaquone-proguanil (Malarone™) |
| | ☐Mefloquine | ☐Primaquine | ☐Other (specify):_____ |

| Were all pills taken as prescribed? | If doses were missed, what was the reason? | If had a side effect, specify |
|---|---|---|
| ☐Yes, missed no doses<br>☐No, missed one to few doses<br>☐No, missed more than a few, but less than half of the doses<br>☐No, missed half or more of the doses<br>☐Don't know<br>☐Other (specify):_____ | ☐Forgot<br>☐Didn't think needed<br>☐Had a side effect<br>☐Was advised by others to stop<br>☐Prematurely stopped taking once home | |

# LABORATORY INFORMATION

## LABORATORY RESULTS SUMMARY

| | | | |
|---|---|---|---|
| *Microscopy of Blood Smear*<br>☐Positive ☐Negative<br>☐Not done ☐Unk | *If Positive, specify*<br>☐*P. falciparum* ☐*P. vivax* ☐*P. malariae* ☐*P. ovale* ☐Not determined ☐Unk | | |
| | *Collection Date (mm/dd/yyyy)* | Laboratory Name | Telephone Number |
| *PCR of Blood*<br>☐Positive ☐Negative<br>☐Not done ☐Unk | *If Positive, specify*<br>☐*P. falciparum* ☐*P. vivax* ☐*P. malariae* ☐*P. ovale* ☐Not determined ☐Unk | | |
| | *Collection Date (mm/dd/yyyy)* | Laboratory Name | Telephone Number |
| *Rapid Diagnostic Test (RDT)*<br>☐Positive ☐Negative<br>☐Not done ☐Unk | *If Positive, specify*<br>☐*P. falciparum* ☐*P. vicax, malariae, or ovale* ☐Mixed infection (*P. falciparum* and *P. vivax*, *malariae,* or *ovale)* | | |
| | *Specify RDT*<br>☐BinaxNOW™ ☐Other (specify):_____ | | |
| | *Collection Date (mm/dd/yyyy)* | Laboratory Name | Telephone Number |

# EPIDEMIOLOGIC INFORMATION

## TRAVEL HISTORY

| Did patient travel **out of county of residence** during the **three months** prior to illness onset? | If No, did patient travel out of county of residence during the **three years** prior to illness onset? |
|---|---|
| ☐Yes ☐No ☐Unk | ☐Yes ☐No ☐Unk |

*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 | | | Did patient reside in U.S. prior to most recent travel? |
|---|---|---|---|
| ☐Tourism | ☐Visiting friends/relatives | ☐Refugee/immigrant | ☐Yes, for > 12 months |
| ☐Military | ☐Airlines/ship crew | ☐Student/teacher | ☐Yes, for < 12 months ☐Unk |
| ☐Peace Corps | ☐Missionary or dependent | ☐Other:_____ | ☐No, specify country:_____ |

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

## *TRAVEL HISTORY - DETAILS*

| Location (city, county, state, country) | Date Travel Started *(mm/dd/yyyy)* | Date Travel Ended *(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 ☐Unk | *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

## CASE DEFINITION

**MALARIA (2010)**

**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 CASE**

- 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 test*, OR
- Detection of malaria parasites in thick or thin peripheral blood films.

**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.

*(continued on page 5)*

## CASE DEFINITION (continued)

**Confirmed**:

- Detection and specific identification of malaria parasites 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.

**COMMENT**

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

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.

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*: renewed manifestation (i.e., of clinical symptoms and/or parasitemia) of malarial infection that is separated from previous manifestations of the same infection by an interval greater than any interval resulting from the normal periodicity of the paroxysms
- *Cryptic*: an isolated case of malaria that cannot be epidemiologically linked to additional cases

Source: http://www.cdc.gov/ncphi/disss/nndss/casedef/malaria_current.htm

## 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. |

## 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

- Adult film actor/actress
- 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 - server
- 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 - nurse
- Medical - other/unknown
- Military
- Police officer
- Professional, technical, or related profession
- Retired
- Sex worker
- Stay at home parent/guardian
- Student - preschool or kindergarten
- Student - elementary or middle school
- Student - high school
- Student - college or university
- Student - other/unknown
- Teacher/employee - preschool or kindergarten
- Teacher/employee - elementary or middle school
- Teacher/employee - high school
- Teacher/instructor/employee - college or university
- Teacher/instructor/employee - other/unknown
- Unemployed - seeking employment
- Unemployed - not seeking employment
- Unemployed - other/unknown
- Volunteer
- Other
- Refused
- Unknown