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

# DENGUE VIRUS INFECTION CASE REPORT

**Please note**: Prompt, standardized interview of all cases of dengue is <u>strongly encouraged</u> to improve the accuracy of recall of possible sources of infection. Jurisdictions that choose to use this form should send completed forms to the Surveillance and Statistics Section through your communicable disease reporting staff. For jurisdictions participating in CalREDIE, entry of information into the CalREDIE form will facilitate investigations and surveillance.

PATIENT INFORMATION										
Last Name	First Name		Middle	Middle Name Suffix		Suffix	Primary Language			
Social Security Number (9 digits	c)	DOB (mm/a	(dhana)		Age	□ Years	□ English □ Spanish			
	<i>&gt;)</i>	000 (1111/0	(0/ y y y y )		Aye	□ Months	□ Other:			
						□ Days	Ethnicity (check one)			
Address Number & Street – Re	sidence		Apartm	nent / Ur	nit Num	ber	□ Hispanic/Latino			
							□ Non-Hispanic/Non-La	ıtino		
City / Town			State		Zip (	Code	Unknown			
							Race(s)			
Census Tract	County of Res	dence	Country	y of Res	sidence			ce descriptions on page 7)		
								m should be based on the self-reporting. Therefore,		
Country of Birth		If not U.S. Born -	Date of A	Arrival in	n U.S. (r	nm/dd/yyyy)		ed the option of selecting		
Home Telephone	Cellular	Phone / Pager	V	Work / S	School T	Telephone	□ American Indian or Alaska Native			
							□ Asian (check all that apply, see list on page 7)			
E-mail Address		Other Electro	Other Electronic Contact Information				□ Asian Indian	🗆 Korean		
		14/2					🗆 Bangladeshi	🗆 Laotian		
Work / School Location		Work / Schoo	Work / School Contact				□ Cambodian	🗆 Malaysian		
Gender							– □ Chinese	□ Pakistani		
□ Female □ Trans female / t	ranswoman [	Genderqueer or	non-binar	v 🗆 l	Unknow	'n	Filipino	□ Sri Lankan		
$\Box$ Male $\Box$ Trans male/ trans		☐ Identity not listed					Hmong	□ Taiwanese		
Pregnant?		,	If Yes, Est. Delivery Date (mm/dd/yyyy)				- □ Indonesian	□ Thai		
□ Yes □ No □ Unknown							□ Japanese □ Other:	□ Vietnamese		
Medical Record Number	Patient's Par	Patient's Parent/Guardian Name				□ Black or African-American				
							□ Native Hawaiian or Other Pacific Islander			
Occupation Setting (see list on	page 8)	Other Descri	Other Describe/Specify				(check all that apply,			
							Native Hawaiian	□ Samoan		
Occupation (see list on page 8)		Other Descri	Other Describe/Specify				🗆 Fijian	□ Tongan		
							🗆 Guamanian			
							□ Other:			
							□ White			
							Other:			
							Unknown			
ADDITIONAL PATIENT DE	MOGRAPHIC	S								
Sex Assigned at Birth	Sexual	Orientation								
□ Female □ Unknown	□ Hete	rosexual or straigh	nt	[	□ Ques	tioning, unsure	e, or patient doesn't know	Declined to answer		
□ Male □ Declined to an	swer │ □ Gay,	lesbian, or same-	gender lov	/ing [	□ Orien	tation not liste	d	Unknown		
	Bise	kual								

California	Department	of Public	Health

First three letters of patient's last name:

CLINICAL INFORM	IATIO	N													
Physician Name - Lasi	t Name						F	irst Name			Teleph	one Number	•		
SIGNS AND SYMP	томѕ														
<i>Symptomatic?</i> □ Yes □ No □ Un	known														
Clinical Presentation						Onse	t Date (	(mm/dd/yyyy)	D	ate Firs	t Sough	t Medical C	are (mi	n/dd/y	ууу)
				evere dengue											
Signs / Symptoms	Yes	No	Unk	If Yes, Specif	-			Signs / Symptoms	Yes	No	Unk	If Yes, Sp	ecify a	s Note	⊧d
Fever				Highest tempe	erature (	specify	⁄ °F/°C)	Cough							
Headache								Petechiae (as noted in the chart)							
Eye pain								Purpura / Ecchymosis / Purpuric rash (as noted in							
Muscle pain								chart, or mention of "bruising")							
Joint pain				Joint(s)				Sweats							
Nausea or vomiting								Hypotension (as noted in the chart, OR systolic				Date meas	ured (r	nm/dd	′уууу)
Rash								blood pressure <90 mmHg AND diastolic <60 mmHg)				Systolic / E	iastolio	;	
Diarrhea								Other symptom (specify)							
Chills															
SEVERE DENGUE W	ARNIN	G SIG	NS	·											
Signs and Symptoms	6				Yes	No	Unk	Signs and Symptoms					Yes	No	Unk
Abdominal pain or ten	derness	3						Hematuria (blood in urine)							
Persistent vomiting								Vaginal bleeding							
Pleural or pericardial e	ffusion	(as no	ted in t	the chart)				Liver enlargement (as noted	d in the	e chart)					
Ascites (as noted in th	e chart)	)						Shock (as noted in the char	t)						
Epistaxis (nosebleed)								Severe bleeding from the ga (i.e., bloody stool, tarry stoo				)			
Bleeding gums								Other symptom (specify)							
PAST MEDICAL HI	STOR	Y													
Has the patient been p □ Yes □ No □ Unkno		sly diag	ynosed	with dengue?	lf Yes,	date c	of diagno		Seroty □ 1	/pe (if k □ 2		□ 4			
HOSPITALIZATION	/														
Did the patient visit the □ Yes □ No □ Un		iency i	room fo	or illness?											
Was the patient hospit □ Yes □ No □ Un	alized?			lf Yes, ho	w many	total h	nospital	nights? □ Still hosj	pitalize	ed as of	-	(r.	nm/dd/	уууу)	
During any part of the □ Yes □ No □ Un		lizatioi	ח, did th	he patient stay i	n an inte	ensive	care un	it (ICU) or a critical care unit (	(CCU)	?					
		hospita	al stays	s related to this	illness, s	specify	details	in the Hospitalization – Detai	ls sect	tion on I	next pa	ge.			

First three letters of patient's last name:

HOSPITALIZATION -	- DETAILS							
Hospital Name 1	Street Addr	ess		Admit Date (mm/dd/yyyy)				
	City			Discharge / Transfer Date (mm/dd/yyyy)				
	State Zi	p Code	Telephone Number	Medical Record Nun	mber	Discharge Diagnosis		
Hospital Name 2	Street Addr	ess		Admit Date (mm/dd/yyyy)				
	City			Discharge / Transfer	r Date (m	nm/dd/yyyy)		
	State Zi	o Code	Telephone Number	Medical Record Nun	nber	Discharge Diagnosis		
OUTCOME		-						
Outcome?	∃ Unknown	If Survive Survived		dd/yyyy)	Date of	Death (mm/dd/yyyy)		
LABORATORY INFO	RMATION							
LABORATORY RES	ULTS SUM	MARY						
Specimen Type 1  Serum CSF Blood Other:		Test Targ Dengu Zika vi Type of T PCR/N Interpreta Dengue S 1 02 Laborator	PH lab       Local PH Lab       Commercial lab       C         PH lab       Local PH Lab       Commercial lab       C         ret (arbovirus) (check one)       e virus       West Nile virus         e virus       West Nile virus       St. Louis encephalitis virus         rus       St. Louis encephalitis virus         rest       AT       IgM       IgG         AT       IgM       IgG       NS1 Antigen       PRNT         ttion       Equivocal       Test not done         Serotype       2       3       4         2       3       4       Not determined         y Name       Serotype       Serotype       Serotype	□ Chikunguny □ Other (speci	ra virus ify): Co esults	Ilection Date (mm/dd/yyyy)		
Specimen Type 2  Serum CSF Blood Other:		Test Targ Dengu Zika vi Type of T PCR/N Interpreta Positiv Dengue S	PH lab       Local PH Lab       Commercial lab       C         pet (arbovirus) (check one)       e       West Nile virus         rus       West Nile virus       St. Louis encephalitis virus         rest       St. Louis encephalitis virus         AT       IgM       IgG       NS1 Antigen       PRNT         tion       Equivocal       Test not done         Serotype       3       4       Not determined	□ Chikunguny □ Other (speci	ra virus ify): Co esults	Ilection Date (mm/dd/yyyy)		

(continued on page 4)

First three letters of patient's last name:

						put						
LABORATOR	RESULTS	SUMMAR	Y (continued)									
Specimen Type 3	3		oratory Type				,	、 、				
□ Serum □ CSF			State PH lab		commercial lab	CDC lab U Oth	ner (specif	y):				
			t Target (arbovirus) (									
Other:			Dengue virus	□ West Nile			ngunya vir					
			lika virus	□ St. Louis e	encephalitis virus	□ Other	(specify):					
			e of Test PCR/NAT □ IgM □	lgG □ NS1 Ar	ntigen □ PRNT □	∃ Other (specify):						
			Interpretation       Collection Date (mm/dd/yyyy)         □ Positive       □ Negative         □ Positive       □ Negative									
		Der	$\Box 2 \Box 3 \Box 4$			Quantitative As	say Resul	ts				
			oratory Name			1		Telephone	Number			
Specimen Type 4												
□ Serum □ CSF							ier (specir	y):				
			t Target (arbovirus) (	,	viruo							
Other:			Dengue virus Zika virus	□ West Nile □ St. Louis e	virus encephalitis virus		ngunya vir (specify):					
			e of Test PCR/NAT □ IgM □	lgG □ NS1 Ar	ntigen □ PRNT □	□ Other (specify):						
		Inte	□ PCR/NAT □ IgM □ IgG □ NS1 Antigen □ PRNT □ Other (specify):						Collection Date (mm/dd/yyyy)			
		Der	□ Positive       □ Negative       □ Equivocal       □ Test not done         Dengue       Serotype       Quantitative Assay Re									
			□ 2 □ 3 □ 4 oratory Name	□ Not determin	ed			Telephone	Number			
40004700												
LABORATORY	RESULIS	SUMMAR										
Hematology □ Yes □ No □	□Unknown		Date Collected (mm	n/dd/yyyy)	Hemoglobin (Hb)		Plate	elets				
Leukopenia (WB		/mm <sup>3</sup> )	If Yes, total white bl	and call count	High homotogrit (L		If Vo	o homotoorit	volue			
		(11111)	II TES, IOIAI WIIILE DI			matocrit (HCT) value If Yes, hematocrit value			value			
			a amina transforma	(ALT) >1 000 mg		If Yes, AST and						
Aspartate aminot □ Yes □ No		s i ) or alanir	e amino transferase	(ALT) ≥1,000 pe	r liter (U/L)	IT YES, AST and	a/or ALT 16	evels				
Other laboratory □ Yes □ No		rformed (e.g	., IHC, virus isolation	n)?	lf Yes, describe							
EPIDEMIOLOG		ATION										
			INCUBATION P	PERIOD: 14 DAY	S PRIOR TO ILLN	IESS ONSET						
TRAVEL HISTO	ORY											
	-						4	dente a de a la a	uhatian naniad0			
□ Yes □ No [		unty of resi	dence during the inc	ubation period?	Has the patient □ Yes □ No	traveled <b>outside</b>	the U.S. (	auring the inc	ubation period?			
If Yes for either of	f these questio	ns, specify a	all locations and date	s below.								
TRAVEL HIST	ORY – DETA	ILS										
Travel Type		State	Country	Other location	n details (city, reso	ort, etc.)		avel Started ////////////////////////////////////	Date Travel Ended (mm/dd/yyyy)			
□ Domestic □ International	Unknown											
□ Domestic □ International												
□ Domestic □ International		<u> </u>										

First three letters of
patient's last name:

EXPOSURES / RISK FACTORS							
Did patient recall any mosquito bites du □ Yes □ No □ Unknown	Did patient recall any mosquito bites during the incubation period?       If Yes, specify all locations and dates below.         If Yes       No       Unknown						
MOSQUITO BITE HISTORY - DET	AILS						
Location (city, county, state, country)	)			Date of Mo	osquito Bite (mm/dd/yyyy)		
NOTES / REMARKS							
REPORTING AGENCY							
Investigator Name	Local Health Jurisdiction		Telephone Number	Telephone Number Date (mm/dd/yyyy)			
<i>First Reported By</i> □ Clinician □ Laboratory □ Other (s	specify):	I					
DISEASE CASE CLASSIFICATIO	N						
Case Classification (see case on page □ Confirmed □ Probable □ Suspec							
STATE USE ONLY							
Case Classification □ Confirmed □ Probable □ Suspec	st □ Not a case □ Need additional inform	nation					

First three letters of patient's last name:

# **CASE DEFINITION**

#### DENGUE (CDPH, working definition 2024)

Dengue, Dengue-like Illness, and Severe Dengue Symptomatic cases (adapted from the 2015 CSTE case definition <u>https://ndc.services.cdc.gov/case-definitions/dengue-virus-infections-2015/</u>)

## CLINICAL DESCRIPTION

## Dengue

Dengue is defined by fever as reported by the patient or healthcare provider and the presence of one or more of the following signs and symptoms:

- Nausea/vomiting
- Rash
- Aches and pains (e.g., headache, retro-orbital pain, joint pain, myalgia, arthralgia)
- Tourniquet test positive
- Leukopenia (a total white blood cell count of <5,000/mm<sup>3</sup>), **OR**
- Any warning sign for severe dengue:
  - Abdominal pain or tenderness
  - Persistent vomiting
  - o Extravascular fluid accumulation (e.g., pleural or pericardial effusion, ascites)
  - Mucosal bleeding at any site
  - Liver enlargement >2 centimeters
  - o Increasing hematocrit concurrent with rapid decrease in platelet count.

#### **Dengue-like Illness**

Dengue-like illness is defined by fever as reported by the patient or healthcare provider and no other signs or symptoms listed for dengue and/or severe dengue.

#### Severe Dengue

Severe dengue is defined as dengue with any one or more of the following scenarios:

- Severe plasma leakage evidenced by hypovolemic shock and/or extravascular fluid accumulation (e.g., pleural or pericardial effusion, ascites) with
  respiratory distress. A high hematocrit value for patient age and sex offers further evidence of plasma leakage.
- Severe bleeding from the gastrointestinal tract (e.g., hematemesis, melena) or vagina (menorrhagia) as defined by requirement for medical intervention including intravenous fluid resuscitation or blood transfusion.
- Severe organ involvement, including any of the following:
  - Elevated liver transaminases: aspartate aminotransferase (AST) or alanine aminotransferase (ALT) ≥1,000 per liter (U/L)
  - Impaired level of consciousness and/or diagnosis of encephalitis, encephalopathy, or meningitis
  - o Heart or other organ involvement including myocarditis, cholecystitis, and pancreatitis.

# LABORATORY CRITERIA FOR DIAGNOSIS

#### Confirmatory:

- Detection of DENV nucleic acid in serum, plasma, blood, cerebrospinal fluid (CSF), other body fluid or tissue by validated reverse transcriptasepolymerase chain reaction (PCR), OR
- Detection of DENV antigens in tissue by a validated immunofluorescence or immunohistochemistry assay, OR
- Detection in serum or plasma of DENV NS1 antigen by a validated immunoassay; OR
- Cell culture isolation of DENV from a serum, plasma, or CSF specimen; OR
- Detection of IgM anti-DENV by validated immunoassay in a serum specimen or CSF in a person living in a dengue endemic or non-endemic area of the United States without evidence of other flavivirus transmission (e.g., WNV, SLEV, or recent vaccination against a flavivirus (e.g., YFV, JEV)); **OR**
- Detection of IgM anti-DENV in a serum specimen or CSF by validated immunoassay in a traveler returning from a dengue endemic area without ongoing transmission of another flavivirus (e.g., WNV, JEV, YFV), clinical evidence of co-infection with one of these flaviviruses, or recent vaccination against a flavivirus (e.g., YFV, JEV); OR
- IgM anti-DENV seroconversion by validated immunoassay in acute (i.e., collected <5 days of illness onset) and convalescent (i.e., collected >5 days after illness onset) serum specimens; OR
- IgG anti-DENV seroconversion or ≥4-fold rise in titer by a validated immunoassay in serum specimens collected >2 weeks apart, and confirmed by a neutralization test (e.g., plaque reduction neutralization test) with a >4-fold higher end point titer as compared to other flaviviruses tested.

#### Probable:

- Detection of IgM anti-DENV by validated immunoassay in a serum specimen or CSF in a person living in a dengue endemic or non-endemic area of the United States with evidence of other flavivirus transmission (e.g., WNV, SLEV), or recent vaccination against a flavivirus (e.g., YFV, JEV).
- Detection of IgM anti-DENV in a serum specimen or CSF by validated immunoassay in a traveler returning from a dengue endemic area with ongoing transmission of another flavivirus (e.g., WNV, JEV, YFV), clinical evidence of co-infection with one of these flaviviruses, or recent vaccination against a flavivirus (e.g., YFV, JEV).

#### Suspected:

• The absence of IgM anti-DENV by validated immunoassay in a serum or CSF specimen collected <5 days after illness onset and in which molecular diagnostic testing was not performed in a patient with an epidemiologic linkage.

First three letters of patient's last name:

# **CASE DEFINITION (continued)**

#### EPIDEMIOLOGIC LINKAGE

- Travel to a dengue endemic country or presence at location with ongoing outbreak within previous two weeks of onset of an acute febrile illness or dengue, **OR**
- Association in time and place (e.g., household member, family member, classmate, or neighbor) with a confirmed or probable dengue case.

#### CRITERIA TO DISTINGUISH A NEW CASE FROM AN EXISTING CASE

DENV infection results in long-lasting immunity to symptomatic infection (dengue) with that DENV-type. However, cross-protective (heterotypic) immunity is short-lived with estimated durations of 1-3 years. In dengue endemic areas where infection pressure is high, individuals have been shown to infrequently have sequential episodes of dengue with two different infecting serotypes.

Based on these data, a person with two clinical episodes of dengue occurring at least two weeks apart and shown to be due to different infecting DENV-types confirmed by molecular diagnostic testing would be classified as two different cases.

However, for two clinical episodes of dengue in the same person diagnosed only by IgM anti-DENV on the second episode; to be considered separate cases, they would have to occur >90 days apart due to the persistence of detectable IgM anti-DENV for ~90 days.

#### **EXPOSURE**

- During the two weeks prior to onset of fever, travel to a dengue endemic country or presence in a location experiencing an ongoing dengue outbreak, OR
- Association in time and place with a confirmed or probable dengue case.

#### ENDEMICITY

The largest burden of dengue in the United States is in the territories of Puerto Rico and the U.S. Virgin Islands where it is endemic. As such, the majority of reported dengue cases in the U.S. come from these two territories, where existing surveillance systems are in place to capture both the incidence and to some degree the spectrum of disease. Other areas of the US where dengue is or has been endemic include American Samoa, the Northern Marianas, and Guam. In addition, hundreds of travel-associated dengue cases occur each year, primarily in the 50 United States and the District of Columbia.

## CASE CLASSIFICATION

**Suspect**: A clinically compatible case of dengue-like illness, dengue, or severe dengue with an epidemiologic linkage, as defined above.

Probable: A clinically compatible case of dengue-like illness, dengue, or severe dengue with laboratory results indicative of probable infection, as defined above.

Confirmed: A clinically compatible case of dengue-like illness, dengue, or severe dengue with confirmatory laboratory results, as defined above.

#### COMMENT

The 2009 CSTE Dengue Position Statement included the reporting of DENV-positive asymptomatic blood donors identified through pilot screening projects in dengue endemic areas. However, these screening projects have ended, no cases were reported, and the "Asymptomatic Blood or Tissue Donor" reporting category will be deleted, limiting reporting to persons with symptomatic DENV infection (i.e., dengue).

R	ACE DESCRIPTIONS									
R	ace		Description	Description						
A	merican Indian or Alaska Nat	ive	Patient has origins	in <b>any</b> of the original pe	oples of North and South Am	erica (including Central America).				
A	sian		Patient has origins in <b>any</b> 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).							
В	ack or African American		Patient has origins	in <b>any</b> of the black racia	al groups of Africa.					
N	ative Hawaiian or Other Paci	fic Islander	Patient has origins	in <b>any</b> of the original pe	oples of Hawaii, Guam, Amer	rican Samoa, or other Pacific Islands.				
W	hite		Patient has origins	in <b>any</b> of the original pe	oples of Europe, the Middle E	ast, or North Africa.				
Α	SIAN GROUPS									
•	Bangladeshi	Filipino	•	Japanese	Maldivian	Sri Lankan				
•	Bhutanese	Hmong	•	Korean	Nepalese	Taiwanese				
•	Burmese	Indian	•	Laotian	Okinawan	• Thai				
•	Cambodian	Indonesia	ı •	Madagascar	<ul> <li>Pakistani</li> </ul>	Vietnamese				
•	Chinese	Iwo Jiman	•	Malaysian	Singaporean					
N	ATIVE HAWAIIAN AND	OTHER PACIE	FIC ISLANDER GR	ROUPS						
•	Carolinian	<ul> <li>Kiribati</li> </ul>	•	Micronesian	Pohnpeian	Tahitian				
•	Chamorro	Kosraean	•	Native Hawaiian	Polynesian	Tokelauan				
•	Chuukese	Mariana Is	lander •	New Hebrides	Saipanese	• Tongan				
•	Fijian	Marshalles	e •	Palauan	Samoan	Yapese				
•	Guamanian	Melanesia	n •	Papua New Guinean	Solomon Islander					

CDPH 8670 (revised 11/24)

First three letters of patient's last name:

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