



DEPARTMENT OF  
**HEALTH AND HUMAN SERVICES**

Promoting and protecting health, well-being, self-sufficiency, and safety of all in Marin County.



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## PUBLIC HEALTH UPDATE

April 15, 2016

### Zika Virus

Dear Colleagues:

This update provides information about recent Zika virus (ZIKV) activity, disease recognition, testing, reporting procedures, and additional resources for Marin County clinicians. Marin County Health and Human Services (H&HS) Communicable Disease Prevention and Control (CDPC) unit is closely monitoring the situation as it is rapidly evolving. Updates are ongoing.

### Current Situation

Zika virus transmission has been documented in a total of 61 countries and territories. To date, there have been 358 reported travel-associated Zika virus disease (ZIKV disease) cases in the US, 31 are in pregnant women and 7 were sexually transmitted. There have been no vector-borne cases reported. On Friday, March 25, 2016, California Department of Public Health (CDPH) announced the first confirmed case of sexually-transmitted Zika virus acquired in California through a Zika-infected partner who returned to the US from a ZIKV transmission area.

The CDC has released two new interim guidelines on ZIKV disease, [one for prevention of sexual transmission](#) and the [other for healthcare providers caring for pregnant women and women of reproductive age](#). It also released a report, [Preventing Transmission of Zika Virus in Labor and Delivery Settings](#) that reinforced the importance of Standard Precautions to protect health care personnel and to prevent them from spreading infections to patients.

On April 15, CDC released its first [report](#) of ZIKV transmission from an infected man to a sex partner through anal sex.

### Summary of Updated Guidance (from [ACOG and SMFM](#))

- Women diagnosed with ZIKV disease should wait at least 8 weeks after symptom onset to attempt pregnancy. Men diagnosed with ZIKV disease should wait at least 6 months after symptom onset to attempt pregnancy. Asymptomatic women and men with possible exposure to ZIKV should wait at least 8 weeks after exposure before attempting pregnancy.
- Consideration of amniocentesis has been removed from the CDC recommended testing algorithm. Amniocentesis should be individualized for each clinical scenario on a case by case basis as with other congenital infections.
- Prevention of unintended pregnancies in the context of a ZIKV outbreak is especially important as an approach to reducing the likelihood of congenital infections.

- CDC established the U.S. Zika Pregnancy Registry to collect information about ZIKV infection during pregnancy and congenital ZIKV infection.
- CDC maintains a 24/7 clinical consultation service for health care providers evaluating and caring for pregnant women and infants with possible ZIKV infection. Call CDC's Zika Pregnancy Hotline for Healthcare Providers at **770 488 7100** or e-mail [zikamch@cdc.gov](mailto:zikamch@cdc.gov) for any concerns related to clinical management.

### **Background Information**

Zika virus disease is a mosquito-associated flaviviral disease caused by Zika virus (ZIKV). It is related to other Flaviviridae, including Japanese Encephalitis, West Nile, Yellow Fever, St. Louis Encephalitis, and Dengue viruses. The natural cycle of ZIKV involves mosquito vectors and vertebrate hosts. *Aedes aegypti* & *Aedes albopictus* are the primary vectors of ZIKV (as well as Dengue and Chikungunya virus); both species have been detected in California. However, neither species has been detected in Marin County.

### **Clinical Presentation**

Asymptomatic infections are the norm; only one in four or five people (20-25%) infected with ZIKV are believed to develop clinical symptoms. Disease is generally mild, with symptoms that include: low-grade fever (<38.5°C), transient arthralgia with joint swelling mainly in the smaller joints of the hands and feet, maculo-papular rash often spreading from the face to the body, conjunctival hyperemia, and general non-specific symptoms such as myalgia and headaches.

The incubation period (i.e. the amount of time between exposure and symptom onset) is thought to range from 3 to 14 days. The disease symptoms usually last for 2 to 7 days. Most people recover fully without severe complications, and hospitalization rates are low. Viremia (the period when ZIKV is measurably present in the blood) has been estimated to last 3 to 5 days following symptom onset.

Although rare, neurological complications such as Guillain-Barré syndrome (GBS) have been reported.

### **Treatment**

Because of similar geographic distribution and symptoms, patients with suspected Zika virus infections should also be evaluated and managed for possible Dengue or Chikungunya infection. Similar to Dengue and Chikungunya infections, no specific antiviral treatment is available for Zika virus infection. Treatment is symptomatic and supportive; including rest, hydration, and use of acetaminophen. Aspirin and other non-steroidal anti-inflammatory drugs (NSAIDs), like ibuprofen and naproxen, should be avoided to reduce the risk of hemorrhage (associated with Dengue).

### **Zika Virus Infection and Pregnancy**

Increasing evidence supports the link between ZIKV infection during pregnancy and adverse pregnancy outcomes such as pregnancy loss, microcephaly, and other brain and eye abnormalities. Transmission of Zika to the fetus has been documented in all trimesters. However, much is not yet known about ZIKV in pregnancy.

CDC and the American Congress of Obstetricians and Gynecologists (ACOG) recommend ultrasound examinations for pregnant women with possible ZIKV exposure (serial ultrasounds if positive or inconclusive Zika viral test result). If fetal ultrasound in a pregnant woman who tested negative for ZIKV shows fetal abnormalities consistent with ZIKV disease, maternal ZIKV retesting is recommended.

### **Infection Prevention and Control**

#### **Travel advisory:**

CDC recommends the following:

- Pregnant women should consider postponing travel to areas where ZIKV transmission is ongoing.
- Pregnant women and women trying to become pregnant who do travel to these areas should talk to their healthcare providers first and strictly follow steps to avoid mosquito bites during their trip.

#### **Mosquito avoidance:**

The mosquitoes responsible for most ZIKV transmission are not believed to be widespread in California and have not been identified in Marin County. However, Marin County residents should use personal protective measures to avoid exposure to mosquitoes. Marin County recommends counseling patients to prevent exposure to mosquito bites by practicing the “Three Ds”:

1. DEET – Apply insect repellent containing DEET, picaridin, oil of lemon eucalyptus, or IR3535 according to label instructions. DEET can be used safely on infants and children two months of age and older. Apply sunscreen first and then the repellent. Pregnant women and women who are breastfeeding should choose an EPA-registered insect repellent and use it according to the product label.
2. DAWN AND DUSK – Mosquitoes bite in the early morning and evening so it is important to wear proper clothing and repellent if outside during these times. Make sure that your doors and windows have tight-fitting screens to keep out mosquitoes. Repair or replace screens with tears or holes.
3. DRAIN – Mosquitoes lay their eggs on standing water. Eliminate all sources of standing water on your property, by emptying flower pots, old car tires, buckets, and other containers. If you know of a swimming pool that is not being properly maintained, please contact the Marin/Sonoma Mosquito and Vector Control District (1 800 231 3236 or 707 285 2200).

### **Revised Testing for Zika Virus in Marin County**

All ZIKV testing must be coordinated and approved by CDPC (415 473 2092).

#### **Testing is recommended for the following situations:**

- Pregnant women with possible ZIKV exposure (see Figure 1, [Interim Guidance](#))
- Infants born to mothers with positive or inconclusive test results for ZIKV infection
- Children with microcephaly whose mothers traveled to or resided in an area with ongoing ZIKV transmission during their pregnancy

**Testing should be considered for the following situations:**

- Non-pregnant patients with two or more compatible symptoms (fever, maculo-papular rash, arthralgia, or non-purulent conjunctivitis) and history of travel to a ZIKV-transmission area
- Patients diagnosed with Guillain-Barre Syndrome (GBS) with a history of travel to a ZIKV-transmission area
- Women who are undergoing fertility treatment after a history of clinical symptoms associated with travel to ZIKV-transmission area(s)

**Testing is not recommended for asymptomatic non-pregnant persons.**

**Laboratory**

CDPH is now providing diagnostic testing (PCR, IgM and PRNT serology) for Zika virus as well as dengue and chikungunya viruses. CDPH is validating urine as possibly a more sensitive specimen type for detection of Zika virus by RT-PCR.

**Reporting**

Clinicians and laboratories must report suspected ZIKV cases to Marin County H&HS Communicable Disease Prevention and Control by phone (415 473 2092).

**Additional Information**

Centers for Disease Control and Prevention

Zika homepage: <http://www.cdc.gov/zika>

Travelers' Health: <http://wwwnc.cdc.gov/travel/notices>

California Department of Public Health:

Zika homepage:

<https://www.cdph.ca.gov/HealthInfo/discond/Pages/Zika.aspx>

American Congress of Obstetricians and Gynecologists:

Practice Advisory: <http://www.acog.org/About-ACOG/News-Room/Practice-Advisories/Practice-Advisory-Interim-Guidance-for-Care-of-Obstetric-Patients-During-a-Zika-Virus-Outbreak>

Sincerely,

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