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**PUBLIC HEALTH DEPARTMENT**

February 8, 2017

**PUBLIC HEALTH ALERT**

**Locally Acquired Zika Virus Detected in Baja California**

The first confirmed case of local transmission of Zika virus in northern Baja California was reported this week in the city of Ensenada, located on the coast south of San Diego County.

Zika virus continues to spread worldwide. While no confirmed cases of travel-related or locally acquired Zika infection have been reported in Imperial County, the Public Health Department is working with local health-care providers to closely monitor suspect cases of Zika infection. To date, seven suspected cases have been reported to the Public Health Department. Of the female cases, five reported travel and pregnancy, and one case was not pregnant but had traveled and had symptoms. All test results are negative; testing for the most recent case reported in January is pending.

Although most persons with Zika virus infection are asymptomatic or have mild clinical disease, infection during pregnancy can cause congenital microcephaly and other brain defects. Zika virus has also been linked to other adverse pregnancy outcomes, including miscarriage and stillbirth.

All pregnant women should be assessed for possible Zika virus exposure at each prenatal care visit. The Centers for Disease Control (CDC) recommends that pregnant women not travel to an area with active Zika virus transmission. Pregnant women who must travel to one of these areas should strictly follow steps to prevent mosquito bites during the trip. In addition, it is recommended that pregnant women with a sex partner who has traveled to or lives in an area with active Zika virus transmission use condoms or other barrier methods to prevent infection or abstain from sex for the duration of the pregnancy.

**Testing Recommendations for Symptomatic Pregnant Women**

Symptomatic pregnant women who are evaluated less than 2 weeks after symptom onset should receive serum and urine Zika virus rRT-PCR testing. Symptomatic pregnant women who are evaluated between 2–12 weeks after symptom onset should first receive a Zika virus immunoglobulin (IgM) antibody test; if the IgM antibody test result is positive or equivocal, serum and urine rRT-PCR testing should be performed.

## **Testing for Asymptomatic Pregnant Women**

Testing recommendations for pregnant women with possible Zika virus exposure who do not report clinical illness consistent with Zika virus disease differ based on the circumstances of possible exposure. For asymptomatic pregnant women who live in areas without active Zika virus transmission and who are evaluated less than 2 weeks after last possible exposure, rRT-PCR testing of serum and urine should be performed. If the rRT-PCR result is negative, a Zika virus IgM antibody test should be performed 2–12 weeks after the exposure. Asymptomatic pregnant women who do not live in an area with active Zika transmission, who are first evaluated 2–12 weeks after their last possible exposure should first receive a Zika virus IgM antibody test; if the IgM antibody test result is positive or equivocal, serum and urine rRT-PCR should be performed.

Asymptomatic pregnant women with ongoing risk for exposure to Zika virus should receive Zika virus IgM antibody testing as part of routine obstetric care during the first and second trimesters; immediate rRT-PCR testing should be performed when IgM antibody test results are positive or equivocal.

For more information on the CDC recommendations, go to:

[http://www.cdc.gov/mmwr/volumes/65/wr/mm6529e1.htm?s\\_cid=mm6529e1\\_w](http://www.cdc.gov/mmwr/volumes/65/wr/mm6529e1.htm?s_cid=mm6529e1_w)

## **California Department of Public Health Zika Testing Guidelines**

Diagnostic testing for Zika virus, as well as dengue and chikungunya, is done at the California Department of Public Health Viral and Rickettsial Disease Laboratory (VRDL). The state laboratory requires specimens to be submitted through the local Public Health Department. The Epidemiology section will help guide health-care providers through the process of submitting specimens for testing. Zika virus testing will be done by VRDL as described below:

### **RT-PCR Testing:**

- Serum or CSF: Collect within 7 days of illness onset. For pregnant women, collect serum within 14 days of illness onset or last exposure.
- Collect at least 2 ml of serum (5-10 ml of blood) in a red top or serum separator tube. For CSF, at least 1 ml is required.
- Urine: (Serum must be submitted with a urine sample.) Collect within 21 days (3 weeks) of illness onset. Asymptomatic pregnant women may submit a urine sample if collected within 14 days of illness onset or last exposure. Collect 3-5 ml only of urine. Urine specimen cups leak and are not recommended for shipping. To avoid leakage of the urine sample, transfer 3-5 ml to a small sterile screw-cap tube (e.g., 15 ml conical tube) and use parafilm to seal. Place the tube in a Ziploc bag with absorbent material. o It is not necessary to spin or process the urine.
- Amniotic fluid: collect if amniocentesis is performed. Collect at least 2mls of fluid.

## **Serology - IgM and PRNT testing**

- Asymptomatic pregnant women: A blood sample should be collected between 2 and 12 weeks after last potential exposure. .
- Symptomatic cases: Optimal collection of acute blood is more than 3 days after illness onset, although serum collected any time after onset will be accepted. Serum collected within 7 days of illness onset may be falsely negative.
- If initial IgM testing is negative and Zika is strongly suspected, a second convalescent serum should be collected. IgM antibodies against Zika virus, dengue viruses, and other flaviviruses (e.g., yellow fever virus, West Nile virus) can cross-react possibly generating false positive results in serological tests; therefore, all IgM-positive samples will be reflexed to PRNT to discriminate among these viruses.

Commercial laboratories offer limited Zika virus diagnostic testing, but may only offer a RT-PCR test. Any patient suspected of being infected with Zika virus for whom RT-PCR testing is negative must also undergo additional serologic testing in order to rule out an infection with Zika virus. Health-care providers are encouraged to request serology and RT-PCR simultaneously when specimens are obtained less than 7 days after onset of symptoms.

For more information or to report a suspect case, contact the Imperial County Public Health Department Epidemiology section at (442) 265-1350.

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