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Updated Guidance for Health Care Providers Caring for Pregnant Women with Possible Zika Virus Exposure

Background

On July 24, 2017, CDC released updated *Interim Guidance for Health Care Providers Caring for Pregnant Women with Possible Zika Virus Exposure – United States and U.S. Territories* (<https://www.cdc.gov/mmwr/volumes/66/wr/mm6629e1.htm>). These recommendations update the prior CDC guidance in response to two developments in the Zika outbreak. First, the number of people with Zika infection in the Americas is declining and therefore a lower occurrence of disease could lead to a higher proportion of false-positive test results. Second, emerging data show that Zika virus IgM antibodies can persist for months in some pregnant women, making it difficult for healthcare providers to use Zika IgM test results to determine whether an infection occurred during or before the current pregnancy. Both the CDC and CDPH emphasize a shared-decision making model for testing and screening pregnant women, with testing decisions considered in accordance with patient preferences, risk tolerance, and clinical judgement and in line with state or local jurisdictional recommendations.

CDC has updated recommendations in four areas, and CDPH is updating the following Zika testing recommendations accordingly, with one notable discretionary difference:

- 1) CDPH is adopting CDC's revised recommendations to test pregnant women with recent possible Zika virus exposure who have a fetus with prenatal ultrasound findings consistent with congenital Zika virus syndrome concurrently with PCR (both serum and urine) and Zika virus IgM antibody regardless of symptoms. (see below for details)
- 2) CDPH is adopting CDC's revised recommendations to test for Zika virus concurrently with PCR (both serum and urine) and Zika virus IgM antibody for pregnant women with recent possible Zika virus exposure and **symptoms** of Zika virus disease.
- 3) CDPH is adopting CDC's revised recommendations on placental testing.
- 4) For asymptomatic pregnant women with recent **but not ongoing** possible Zika virus exposure the new CDC recommendation is to **not** routinely test for Zika virus. However, CDC extends discretion to states where regional epidemiology and travel patterns may deviate from patterns seen in other parts of the country. Therefore, CDPH's



recommendation regarding exposed asymptomatic pregnant women is NOT changing at this time and remains as follows:

- a) **CDPH has decided to maintain the previous recommendations to test all asymptomatic pregnant women with recent possible Zika virus exposure, whether or not the exposure is ongoing, and**
- b) For asymptomatic pregnant women **with ongoing** possible Zika virus exposure, CDPH continues to recommend both PCR and IgM testing in accordance with the prior recommended periodicity. Those recommendations are included below in this update.

The following information was considered in arriving at the decision to retain the current recommendations in California for testing exposed **asymptomatic pregnant patients with and without ongoing Zika exposures**.

- In California, the most common country of exposure to Zika virus is Mexico. Zika virus transmission in Mexico, particularly northern Mexico, started later than in other regions of the Americas, and it is unclear whether Zika virus transmission in Mexico has yet peaked. The peak season for *Aedes* vector mosquitoes is just beginning in Mexico. Thus, at the present time it is too soon to know how intense Zika virus transmission in Mexico will be this summer.
- For 2016, 13% of California case-patients were asymptomatic for Zika virus disease. To date for 2017, 63% of the case-patients in California have been asymptomatic. Of the 40 asymptomatic cases, including 35 pregnant women, 32.5% were able to be laboratory confirmed, 5 by PCR and 8 by PRNT testing. The other 67.5% were classified as unspecified flavivirus infections with both dengue and Zika neutralizing antibodies detected by PRNT. While laboratory results indicating unspecified flavivirus infection do not confirm a recent diagnosis of Zika virus disease, some infants with Zika related birth defects and infants who have tested positive for Zika have been born to mothers that are classified as having had unspecified flavivirus infection.

CDPH will continue to monitor the prevalence of Zika virus infection during the current season for any further modifications in recommendations.

In California, women and their partners may routinely travel to areas with Zika transmission whether for work, business, family commitments, or leisure. Therefore, it is important that health care providers who care for pregnant and reproductive age women be vigilant in screening women for Zika exposure. It is important to advise pregnant women and women planning pregnancy to avoid travel to areas with Zika travel notices. Women with unavoidable travel or sexual exposure to Zika should delay pregnancy by abstaining or using the most effective contraceptive method available; use male or female condoms or other barrier protections to prevent sexual transmission; and protect themselves against mosquito bites during travel.

SUMMARY OF ALL TESTING RECOMMENDATIONS

See the steps below for screening and testing pregnant women who may have lived in or traveled to areas included in CDC travel notices and may be pregnant or anticipating pregnancy in the near future.

Pregnant Women

1. For **all pregnant women**
Screen. Use the following questions.
 - a. Do you live in or frequently (daily or weekly) travel to an area with Zika risk?
 - b. Have you traveled to an area with Zika during your pregnancy or just before you became pregnant (8 week before conception/6 weeks before LMP)?
 - c. Have you had sex without a condom (male or female condom) or other barrier methods (i.e., dental dams) with a partner(s) who lives or travels to an area with Zika?
 - d. If “Yes” to any of the above, ask for signs or symptoms of Zika (fever, rash, conjunctivitis, or joint pain) in the 12 weeks from time of last exposure.
2. [For pregnant women with recent possible Zika virus exposure and symptoms of Zika virus disease](#), test for Zika virus concurrently with PCR (both serum and urine) and Zika virus IgM antibody testing as soon as possible through 12 weeks after symptom onset.
3. For **asymptomatic** pregnant women with **recent possible Zika virus exposure (not ongoing)**, follow previous recommendations based upon the timing of exposure:
 - a. For women <2 weeks after possible exposure: Test using PCR (serum and urine). If PCR negative, collect a second serum between 2-12 weeks after possible exposure for serologic testing for IgM..
 - b. For women 2–12 weeks after possible exposure: Test using Zika virus IgM antibody testing. If positive or equivocal IgM results, reflex to PCR testing. If PCR result is negative, PRNT should be performed.
4. For **asymptomatic** pregnant women with **ongoing possible Zika virus exposure**:¹
 - a) Consider PCR testing at least once per trimester, unless a previous test has been positive.²
 - b) Conduct Zika virus IgM testing during the 1st and 2nd trimesters. PCR and IgM testing can occur concurrently in the 1st and 2nd trimester.
 - c) Counsel pregnant women on the limitations of Zika IgM and PCR testing during each trimester. https://www.cdc.gov/zika/pdfs/living_in.pdf
5. For pregnant women with recent possible Zika virus exposure who have a fetus with **prenatal ultrasound findings consistent with congenital Zika virus syndrome**, maternal Zika virus testing using PCR and Zika virus IgM antibody testing should be performed.
6. Testing placental tissue specimens from pregnancies with possible Zika virus exposure that result in live births can be considered for diagnostic purposes when there is no definitive diagnosis of laboratory confirmed Zika virus infection for symptomatic pregnant women and women with an infant born with possible Zika virus-associated birth defects. Placental or fetal tissue testing may be considered in other scenarios on a case by case basis after CDPH has been consulted and received pre-approval from CDC.
7. If **no identifiable Zika exposure history is present** in a symptomatic pregnant patient, but the patient has lived or visited an area in California with endemic *Aedes* vector mosquitoes, contact your [local health department](#).

¹ “Ongoing risk of Zika virus exposure” is defined as follows: Currently living in or frequently (daily or weekly) traveling to areas with Zika virus transmission or having ongoing unprotected exposure to a potentially infected sexual partner.

² CDPH notes that testing may be considered for patients with less frequent (e.g., monthly) but repeated Zika virus exposure. However, it is NOT recommended to test with every exposure.

Preconception Testing and Counseling

For non-pregnant women **who want to conceive in the near future and who have an ongoing risk of Zika virus exposure**¹

1. Remind women about recommendations to delay pregnancy until Zika risk can be reduced.
2. Consider preconception IgM testing to establish a baseline Zika virus IgM result as part of preconception counseling. Testing before pregnancy can provide information that will help with the interpretation of Zika test results in the future if a woman is exposed to Zika in an ensuing pregnancy. For example, if a woman has a negative IgM result before pregnancy and a subsequent positive IgM result during pregnancy, it is likely that this woman experienced a recent infection.

Antibody test results before pregnancy should **not** be used to determine if it is safe for a woman to become pregnant because the test results could have multiple interpretations.

Commercial laboratories should be utilized for preconception Zika testing in asymptomatic females and local health departments notified of any positive Zika test results.

Shared Decision-Making Resources

Testing and care plan decisions should involve patients and providers working together to consider patient preferences and values, clinical judgment, a balanced assessment of risks and expected outcomes, and the jurisdiction's recommendations. Providers should consider potential exposure risk factors including symptoms, type and length of possible exposure, Zika virus transmission trends at location of possible exposure and the use of prevention measures (e.g., insect repellent, appropriate clothing, and condom use).

The CDC has also released a number of resources for clinicians, including a *Pretest Counseling Conversation Guide for Healthcare Providers* (<https://www.cdc.gov/zika/pdfs/clinician-guide-symptoms.pdf>). This counseling guide is intended to assist providers with counseling patients undergoing Zika testing during each step of the testing algorithm.