MAYO CLINIC LABORATORIES

Assessment for Zika Virus Infection in Pregnant Women

- Pregnant women with possible exposure to Zika virus through travel to region with Zika transmission or possible sexual exposure
- Evaluate for signs and symptoms of Zika virus disease (eg. fever, conjunctivitis, rash, arthralgia)
- http://wwwnc.cdc.gov/travel/page/zika-travel-information

Before testing, discuss testing limitations and potential risks for misinterpretation of test results

Symptomatic

Up to 12 weeks post-symptom onset

Zika virus rRT-PCR (Paired serum and urine)
- RZIKS / Zika Virus, PCR, Molecular Detection, Serum
- RZIKU / Zika Virus, PCR, Molecular Detection, Random, Urine

AND

Zika virus serology (serum)
- PNZIK / Prenatal Zika Virus IgM Antibody Capture MAC-ELISA, Serum

- Positive Zika virus rRT-PCR (serum and/or urine) → Acute Zika infection
- Negative Zika virus rRT-PCR (serum and/or urine) AND Non-negative Zika IgM (Presumptive or possible Zika virus or other Flavivirus) → Consider testing for dengue, West Nile, chikungunya viruses; Confirmation testing by a plaque reduction neutralization test (PRNT) is required (available through CDC and select public health laboratories) → MML will submit the sample for PRNT directly to the appropriate laboratory
- Negative rRT-PCR and negative Zika IgM → No evidence of Zika virus infection

Asymptomatic with ongoing possible Zika virus exposure

Test 3 times during pregnancy. First time at initial prenatal visit.

Zika virus rRT-PCR (Paired serum and urine)
- RZIKS / Zika Virus, PCR, Molecular Detection, Serum
- RZIKU / Zika Virus, PCR, Molecular Detection, Random, Urine

- Positive Zika virus rRT-PCR (serum and/or urine) → Acute Zika infection
- Negative Zika virus rRT-PCR (serum and urine) → No Zika RNA detected → Zika virus infection during pregnancy cannot be ruled out

Asymptomatic without ongoing possible exposure

Testing not routinely recommended, but should be considered. If considering testing, base decisions on patient preferences and values, clinical judgment, a balanced assessment of risks and expected outcomes, and jurisdiction's recommendations. If testing is conducted, follow algorithm for symptomatic pregnant women using timeframe from last possible exposure

- **Asymptomatic pregnant women *with ongoing* possible Zika virus exposure should be offered Zika virus NAT testing 3 times during pregnancy.** IgM antibody testing is no longer routinely recommended because IgM can persist for months after infection; therefore, IgM results cannot reliably determine whether an infection occurred during the current pregnancy.
- **Asymptomatic pregnant women who have recent possible Zika virus exposure (ie, through travel or sexual exposure) but without ongoing possible exposure are not routinely recommended to have Zika virus testing.**

Testing of asymptomatic Zika virus-exposed partners of pregnant women is not recommended
- Barrier protection or abstaining from sex during pregnancy is recommended
- For individuals considering conception postexposure, visit www.cdc.gov/zika/prevention/protect-yourself-during-sex.html for up-to-date CDC recommendations

Serologic and molecular testing is recommended for infants suspected to have contracted Zika virus in utero.

Clickable PDF
Click on blue tests to view test catalog information

Adapted from Oduyebo T, Igbinosa I, Petersen EE, et al: Update: Interim Guidance for Health Care Providers Caring for Pregnant Women with Possible Zika Virus Exposure – United States, July 2017. MMWR Morb Mortal Wkly Rep 2017;66(29):781-793

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09/2018