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South Carolina Health Alert Network

This is an official

CDC Health Update

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CDC Recommendations for Subsequent Zika IgM Antibody Testing

Summary

Testing for Zika virus infection using real-time reverse-transcription polymerase chain reaction (rRT-PCR) molecular assays is now commercially available. When requesting Zika rRT-PCR testing from a commercial laboratory, providers should be aware that commercial laboratories performing rRT-PCR currently do not also offer Zika IgM enzyme-linked immunosorbent assay (ELISA) or confirmatory serologic testing (plaque reduction neutralization test, or PRNT). Therefore, if possible, providers should store a serum aliquot for subsequent Zika IgM ELISA testing if the rRT-PCR assay is negative. Otherwise, collection of an additional serum sample may be necessary.

Recommendations

- rRT-PCR (molecular) testing should be performed for patients possibly exposed to Zika virus who have symptoms consistent with Zika virus infection
- Providers who request molecular testing for Zika virus infection from a commercial testing laboratory are advised to retain and store in a refrigerator (2-8°C) an aliquot of the patient's serum for subsequent Zika IgM ELISA testing if the rRT-PCR is negative
- For specimens that are rRT-PCR negative from the commercial laboratory and no stored serum specimen is available, another serum specimen should be collected within 12 weeks of symptom onset for Zika IgM ELISA testing
- Appropriate samples for molecular testing are serum samples collected <7 days and urine samples collected <14 days after symptom onset. Urine should always be collected with a patient- matched serum specimen.

Background

Molecular assays for detection of Zika virus RNA are now commercially available under Emergency Use Authorizations (EUAs) issued by the Food and Drug Administration (FDA). CDC recommends molecular testing using rRT-PCR for serum samples collected <7 days and urine samples collected <14 days after symptom onset. A positive rRT-PCR test is confirmation of Zika virus infection. However, because of the decline in the level of viremia over time and possible inaccuracy in reporting of dates of illness onset, a negative rRT-PCR result does not exclude Zika virus infection. In such cases, CDC recommends serologic testing by ELISA for Zika IgM antibody.

Currently, commercial laboratories that offer rRT-PCR testing do not provide Zika IgM ELISA testing with PRNT confirmation and have no routine process to forward specimens to another testing laboratory. Therefore, when requesting Zika rRT-PCR testing from a commercial laboratory, providers should retain

an aliquot of the serum for Zika IgM ELISA testing if the rRT-PCR testing is negative. Blood should be collected and processed per routine guidelines (collected in a serum separator tube with serum aliquots transferred to new vials), and one of the serum aliquots should be stored in a refrigerator (2-8°C) until it is known if additional IgM testing is indicated. If a serum aliquot cannot be stored or is not available, but further testing is indicated, a new blood sample should be collected. Serum samples for IgM testing should be collected from patients within 12 weeks of symptom onset. Providers should contact their local health department to discuss IgM testing of stored or newly collected serum from patients who are rRT-PCR negative.

Resources for Additional Information

- Zika virus specimen collection: http://www.cdc.gov/zika/hc-providers/body-fluids-collection-submission.html
- Interim guidance for Zika virus testing of urine: http://www.cdc.gov/mmwr/volumes/65/wr/mm6518e1.htm

DHEC contact information for reportable diseases and reporting requirements

Reporting of Zika Virus is consistent with South Carolina Law requiring the reporting of diseases and conditions to your state or local public health department. (State Law # 44-29-10 and Regulation # 61-20) as per the DHEC 2016 List of Reportable Conditions available at: http://www.scdhec.gov/Library/CR-009025.pdf

Federal HIPAA legislation allows disclosure of protected health information, without consent of the individual, to public health authorities to collect and receive such information for the purpose of preventing or controlling disease. (HIPAA 45 CFR §164.512).

Regional Public Health Offices – 2016

Mail or call reports to the Epidemiology Office in each Public Health Region

MAIL TO:

Lowcountry	Midlands	Pee Dee	Upstate
4050 Bridge View Drive, Suite 600 N. Charleston, SC 29405 Fax: (843) 953-0051	2000 Hampton Street Columbia, SC 29204 Fax: (803) 576-2993	145 E. Cheves Street Florence, SC 29506 Fax: (843) 661-4859	200 University Ridge Greenville, SC 29602 Fax: (864) 282-4373

CALL TO:

Lowcountry	Midlands	Pee Dee	Upstate
Berkeley, Charleston, Dorchester Phone: (843) 953-0043 Nights/Weekends: (843) 441-1091	**Kershaw, Lexington, Newberry, Richland** Phone: (803) 576-2749 Nights/Weekends: (888) 801-1046	**Chesterfield, Darlington, Dillon, Florence, Marlboro, Marion** Phone: (843) 661-4830 Nights/Weekends: (843) 915-8845	**Anderson, Oconee** Phone: (864) 260-5801 Nights/Weekends: (866) 298-4442
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For information on reportable conditions, see http://www.scdhec.gov/Health/FHPF/ReportDiseasesAdverse Events/ReportableConditionsInSC/

DHEC Bureau of Disease Control
Division of Acute Disease Epidemiology
2100 Bull St ▪ Columbia, SC 29201
Phone: (803) 898-0861▪ Fax: (803) 898-0897
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Categories of Health Alert messages:

Health Alert	Conveys the highest level of importance; warrants immediate action or attention.
Health Advisory	Provides important information for a specific incident or situation; may not require immediate action.
Health Update	Provides updated information regarding an incident or situation; unlikely to require immediate action.
Info Service	Provides general information that is not necessarily considered to be of an emergent nature.