ZIKA Virus Disease Testing: Interim Guidance for Zika Virus Testing of Urine

Summary

Diagnostic testing for Zika virus infection can be accomplished using molecular and serologic methods. Real-time reverse transcription-polymerase chain reaction (rRT-PCR) is the preferred test for Zika virus infection because it can be performed rapidly and is highly specific. rRT-PCR detects Zika virus in serum only in the first week of illness in most patients but detects Zika virus in urine up to 14 days after onset of symptoms.

On the basis of the newly available data, CDC recommends that Zika virus rRT-PCR be performed on urine collected within 14 days of symptom onset in patients with suspected Zika virus disease in conjunction with serum testing; a positive result in either specimen type provides evidence of Zika virus infection. A negative result does not preclude infection. Serological testing (virus-specific IgM and neutralizing antibodies) may be considered within 2-12 weeks after symptom onset, however cross-reaction with related flaviviruses (e.g., dengue and yellow fever viruses) is common and may be difficult to discern. Plaque-reduction neutralization (PRNT) testing can be performed to measure virus-specific neutralizing antibodies and discriminate between cross-reacting antibodies in primary flavivirus infections.


Symptoms of Zika virus infection include fever, rash, joint pain, and red eyes (conjunctivitis). The CDC recommends testing for Zika virus infection for the following:

- Individuals with symptoms suggestive of Zika infection who have traveled within the last two weeks to an area with ongoing transmission
- Asymptomatic pregnant women with a history of residence in or travel to areas of active Zika transmission from 2 to 12 weeks after possible exposure to Zika virus
- Asymptomatic pregnant women whose male sexual partners have traveled to or lived in an area of active Zika transmission
- Infants born to mothers who live or traveled to areas with Zika virus transmission during their pregnancy and who have microcephaly, brain calcifications, or other central nervous system deficits not otherwise explained by other etiologies.
Health care providers in South Carolina are reminded of the statutory requirement to report all cases of suspected Zika virus disease to DHEC whether submitting tests to a commercial laboratory or to the state Bureau of Laboratories.

For assistance in determining if patients’ clinical histories and epidemiological risk factors are consistent with Zika virus and warrant testing, health care providers should contact the DHEC Regional Epidemiology Office in their area.

**Resources for Additional Information**


**DHEC contact information for reportable diseases and reporting requirements**

Reporting of Zika virus disease 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](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:

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<th>Lowcountry</th>
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| 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:

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| 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: (866) 260-5801  
  Nights/Weekends: (866) 298-4442 |
| Beaufort, Colleton, Hampton, Jasper  
  Phone: (843) 322-2453  
  Nights/Weekends: (843) 441-1091 | Chester, Fairfield, Lancaster, York  
  Phone: (803) 286-9948  
  Nights/Weekends: (888) 801-1046 | Clarendon, Lee, Sumter  
  Phone: (803) 771-5511  
  Nights/Weekends: (843) 915-8845 | Abbeville, Greenwood, Laurens, McCormick  
  Phone: (864) 227-5947  
  Nights/Weekends: (866) 298-4442 |
| Allendale, Bamberg, Calhoun, Orangeburg  
  Phone: (803) 268-5833  
  Nights/Weekends: (843) 441-1091 | Aiken, Barnwell, Edgefield, Saluda  
  Phone: (803) 642-1618  
  Nights/Weekends: (888) 801-1046 | Georgetown, Horry, Williamsburg  
  Phone: (843) 915-8804  
  Nights/Weekends: (843) 915-8845 | Cherokee, Greenville, Pickens, Spartanburg, Union  
  Phone: (864) 372-3133  
  Nights/Weekends: (866) 298-4442 |

For information on reportable conditions, see [http://www.scdhec.gov/Health/FHPF/ReportDiseasesAdverseEvents/ReportableConditionsInSC/](http://www.scdhec.gov/Health/FHPF/ReportDiseasesAdverseEvents/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
Nights / Weekends: 1-888-847-0902

**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.