CHIKUNGUNYA:

Testing and Reporting Guidelines for Cases of Chikungunya
(Revised July, 2014)

- The IgM immunoassay (e.g. EIA or IFA) on serum is most sensitive at least 4 days post onset of illness.
- RT-PCR is most sensitive if performed on serum collected within 8 days of illness onset.
- Consider using both testing methodologies.
- Providers are required to report all arboviral infections with laboratory evidence of current or recent infection, including chikungunya.

WHEN TO CONSIDER CHIKUNGUNYA TESTING FOR YOUR PATIENT

Consider and test for chikungunya in patients with history of recent travel (within 2 weeks) to an endemic area and presenting with any of the following signs or symptoms:

- Acute febrile illness, especially if accompanied by polyarthralgias (mainly involving the distal joints of the extremities), headache, myalgias, back pain, or rash.

DIAGNOSIS OF CHIKUNGUNYA INFECTION

Laboratory testing is done on serum to detect virus, viral nucleic acid, or virus-specific immunoglobulin and neutralizing antibodies.

Diagnostic methods include:

1. Serologic IgM and IgG immunoassay (e.g. EIA, IFA)
2. RT-PCR
3. Virus Isolation
4. PRNT

Serum is the specimen of choice for both RT-PCR and serology. RT-PCR testing and virus isolation are most sensitive on serum specimens collected within 8 days of illness onset but may be positive for 2 weeks or longer. Because chikungunya IgM may not be positive until up to 4 days following onset of illness, specimens collected less than 4 days after onset may be negative for IgM, and testing should be repeated. A positive chikungunya IgG in the absence of a positive chikungunya IgM is consistent with past infection. If acute chikungunya virus infection is suspected, it is best to collect both acute and convalescent sera. Convalescent specimens should be collected 2-3 weeks after acute specimens.

LABORATORIES THAT OFFER CHIKUNGUNYA TESTING

FOCUS DIAGNOSTICS

1. IgM and IgG serology
2. RT-PCR* on serum

Focus performs the tests. Other commercial laboratories can forward specimens to Focus for testing.

Focus Diagnostics – for more information about submitting specimens visit www.focusdx.com/focus/1-reference_laboratory/index.asp
1-800-445-4032
1-800-631-1390

*Awaiting CLEP approval
THE WADSWORTH CENTER
1. RT-PCR and virus isolation on serum.
2. PRNT for paired acute and convalescent sera only.

Collect 2ml serum specimen for RT-PCR testing at Wadsworth. Specimens must be kept frozen/cold from time of collection and shipped on cold packs that will ensure it is still cold on arrival at Wadsworth.

Specimens must be accompanied by a completed Wadsworth Infectious Diseases Requisition Form (travel history including location and date is required), which can be obtained at:
http://www.wadsworth.org/divisions/infdis/DOH-4463_060209.pdf

Ship specimens to;
Virology Laboratory,
David Axelrod Institute
Wadsworth Center. NYSDOH
120 New Scotland Avenue
Albany, NY 12208

Facilities that submit specimens directly to the Wadsworth Center for testing are strongly encouraged to have access to the Health Provider Network (HPN) to facilitate electronic test ordering and result retrieval. Information for obtaining HPN accounts, which can be used for numerous other functions, can be obtained by calling the Electronic Clinical Laboratory Reporting System (ECLRS) Help Desk at 1 (866) 529-1890. Positive results will also be communicated to the treating medical provider or the submitting laboratory by telephone, not by FAX.

CENTERS FOR DISEASE CONTROL AND PREVENTION – contact BCD for assistance
1. Serologic IgM and IgG enzyme immunoassay (EIA)
2. RT-PCR
3. Virus Isolation
4. PRNT

REPORTING
Providers are required to report all arboviral infections with laboratory evidence of current or recent infection. All cases of chikungunya and other laboratory-diagnosed arboviral infections must be reported to the New York City DOHMH Bureau of Communicable Disease.

How to Report:
Report the above conditions directly to the Bureau of Communicable Disease electronically via NYC DOHMH’s Reporting Central Home Page (you must have a NYCMED account to access Reporting Central at http://nyc.gov/health/ncmed; instructions for setting up a NYCMED account are available at: http://www.nyc.gov/html/doh/html/hcp/hcp-urf1.shtml).

You may also report using the “Universal Reporting Form” September 2013 version (downloadable form at http://www.nyc.gov/html/doh/html/hcp/hcp-urf.shtml); fax to the Bureau of Communicable Disease at 347-396-2632. You may also call in reports directly to the NYC DOHMH at 866-692-3641.
QUESTIONS?

During regular business hours, contact the:

- NYC DOHMH at 866-692-3641
- NYSDOH Virology Laboratory at 518-474-4177 for questions about the RT-PCR, or
- NYSDOH Diagnostic Immunology Laboratory at 518-474-4177 for questions about serologic testing.

To report a cluster of cases, or an individual urgent case, such as a suspected chikingunya virus case due to transfusion or organ transplantation, call the:

- The NYC DOHMH at 866-692-3641.