### Comparison of Chikungunya Virus Infection and Dengue Fever

<table>
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<th>Characteristic</th>
<th>Chikungunya virus infection</th>
<th>Dengue fever</th>
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| **Incubation Period**          | 3-7 days (range 2-12 days)                                                                  | 4-7 days (range 3-14 days)                                                   | • Infections can be mild or asymptomatic  
• Co-infection is possible  
• Although each may have own characteristic symptoms, they cannot always be differentiated on signs/symptoms alone  
• Suspected chikungunya cases should be managed as dengue until dengue has been ruled out |
| **Signs and symptoms**         | Fever, polyarthralgia (usually bilateral and symmetric and associated with distal joints such as the hands, feet, wrists, ankles, elbows and knees), headache, backache, myalgia pain, maculopapular rash, polyarthritis or conjunctivitis; rarely fatal | Fever, headache, retroorbital pain, arthralgia, myalgia and/or bone pain, rash and mild bleeding (e.g., nose or gums bleed, petechial rash, easy bruising); severe complications affecting circulatory system with dengue hemorrhagic fever |                                                                                                      |
| **Clinical lab findings**      | Mild thrombocytopenia (>100,000 /mm³), lymphopenia, elevated liver enzymes (ALT, AST)       | Thrombocytopenia (<100,000 /mm³), lymphopenia, neutropenia and elevated liver enzymes (ALT, AST); more severe signs with dengue hemorrhagic fever |                                                                                                      |
| **Laboratory Testing**         |                                                                                             |                                                                              |                                                                                                      |
| **Test type and sensitivity**  | • RT-PCR: most sensitive if collected ≤8 days of onset  
• Serology: IgM might not be positive until up to 4 days after onset; specimens collected <4 days after onset may be negative for IgM and testing should be repeated | • RT-PCR: most sensitive if collected ≤5 days of onset;  
• Serology: IgM might not be positive until up to 6 days after onset; specimens collected <6 days after onset may be negative for IgM and testing should be repeated | • Serum (collected in red-top or tiger-top tube) is preferred specimen for RT-PCR and serology  
• Positive IgG in absence of positive IgM is consistent with past infection  
• Serology: acute and convalescent serum (collected 10 to 14 days after symptoms onset) are recommended  
• Dengue negative cases (those that only test IgG positive for dengue) should also be investigated as potential chikungunya cases |
| **Test availability**          | Focus Diagnostics (commercial lab) and CDC offer both RT-PCR and serology                     | Same commercial lab options. Additional labs can test for dengue but cannot simultaneously test for CHIK. | • Turnaround times vary by lab  
• Specimens tested at CDC should be coordinated through local health department. Priorities for CDC testing include: 1) those with compatible illness who traveled in group to area known to be endemic within past 14 days; or 2) those with compatible illness who traveled to area not known to be endemic within past 14 days (possible new transmission area); or 3) those with signs/symptoms who did not travel (possible local transmission); or 4) if commercial testing is not feasible |