

Toolkit for Investigating Possible Local Mosquito-Borne Transmission of Zika Virus

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Summary

The Centers for Disease Control and Prevention (CDC) has developed this toolkit to provide resources for investigating possible local mosquito-borne Zika virus transmission. This toolkit is for state and local health department epidemiologists, communication specialists, laboratory professionals, and other public health officials. *The protocol and forms can be modified according to the specific needs of each jurisdiction.* Links to current guidance are provided wherever possible. Users should refer to CDC's Zika Interim Response Plan (Continental United States and Hawaii) (<https://www.cdc.gov/zika/public-health-partners/cdc-zika-interim-response-plan.html>) for more information.

In the event of local transmission, state health officials should notify designated officials and CDC's Emergency Operation Center at 770-488-7100 or eocreport@cdc.gov.

This toolkit contains guidance, sample forms, and other resources specific to the epidemiologic aspects of an investigation of possible local transmission of Zika virus. Laboratory guidance to assist in the laboratory component of Zika virus investigations is available at <https://www.cdc.gov/zika/laboratories/index.html>.

Epidemiologic Tools

The following tools are available to assist in the epidemiologic component of Zika virus investigations. These tools and the algorithm ([Figure](#)) will assist with the following steps in an investigation.

Investigation of possible routes of exposure for confirmed case of Zika virus infection

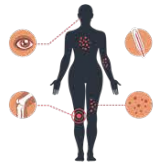
- Objective: To identify possible routes of exposure to Zika virus (e.g., travel-related, sexual, transfusion/transplant, blood/body fluid) for the case under investigation. If none of these exposures is identified, local mosquito-borne transmission should be considered.
- The following tools are available to assist with this investigation:
 - **Zika Virus Infection Case Investigation Form**
Example form for collecting information on cases of Zika virus infection, including demographics, clinical symptoms, and exposures: <https://www.cdc.gov/zika/public-health-partners/infection-case-investigation-form.docx>
 - **Zika Virus Line List Template**
Example line list with variables to assist with tracking and categorizing Zika virus cases under investigation: <https://www.cdc.gov/zika/public-health-partners/line-list.xlsx>
 - **CDC Blood Safety Investigation Toolkit: Transfusion-transmitted Infections**
Task list and tools for investigating possible transmission of pathogens through blood transfusion: <http://www.cdc.gov/bloodsafety/tools/investigation-toolkit.html>

Investigation of possible local mosquito-borne transmission of Zika virus

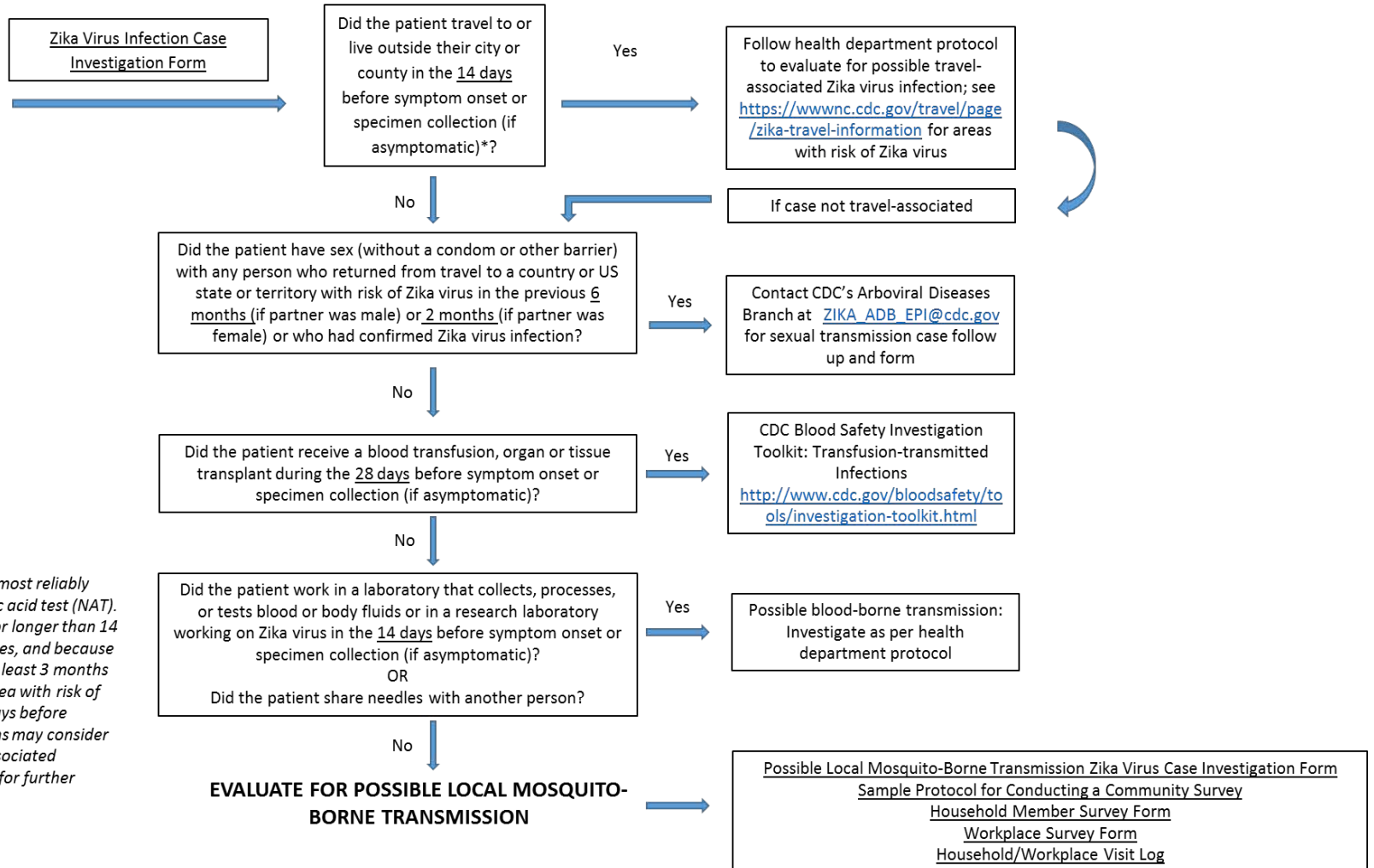
- Local mosquito-borne transmission of Zika virus should be assumed when a case is confirmed and other routes of exposure, such as travel, sexual contact, and blood/body fluid exposure have been evaluated and ruled out. Under these circumstances, state and local jurisdictions should implement targeted surveillance for Zika virus infection among household members of the confirmed, locally acquired case and among neighboring households and any other likely sites of transmission identified through the case investigation.

- The objectives of this investigation are to determine locations and/or sources of possible local mosquito-borne transmission of Zika virus and to determine the intensity and geographic extent of local transmission. Please see “Surveillance response in the event of possible mosquito-borne transmission” in the Zika Interim Response Plan (Continental United States and Hawaii) (<https://www.cdc.gov/zika/public-health-partners/cdc-zika-interim-response-plan.html>).
- The following tools are available to assist with this investigation:
 - Possible Local Mosquito-Borne Transmission Zika Virus Case Investigation Form
Example form for collecting exposure information on suspected locally acquired cases of Zika virus infection: <https://www.cdc.gov/zika/public-health-partners/transmission-investigation-form.docx>
 - Zika Virus Line List Template
Example line list with variables to assist with tracking and categorizing Zika virus cases under investigation: <https://www.cdc.gov/zika/public-health-partners/line-list.xlsx>
 - Sample Protocol for Conducting a Community Survey
Protocol for conducting surveys of household members and other neighboring households and other locations within a community where local transmission of Zika virus is suspected. This protocol can be adapted according to health department needs: <https://www.cdc.gov/zika/public-health-partners/community-survey-protocol.docx>
 - Household Member Survey Form
Tool for tracking visits of index case household and neighboring households targeted for the community survey. The tool can be used to collect household member interview and specimen collection information: <https://www.cdc.gov/zika/public-health-partners/household-survey-form.docx>
 - Workplace Survey Form
Tool for tracking visits of workplace or other locations targeted for the community survey. The tool can be used to collect interview and specimen collection information: <https://www.cdc.gov/zika/public-health-partners/workplace-survey-form.docx>
 - Household/Workplace Visit Log
Tool for tracking visit attempts of households and workplace/other locations: <https://www.cdc.gov/zika/public-health-partners/visit-log.xlsx>

Zika Virus Disease Case Investigation Algorithm



Case-patient with confirmed Zika virus infection



* Recent Zika virus infection is most reliably determined by a positive nucleic acid test (NAT). Because NAT may be positive for longer than 14 days after infection in some cases, and because IgM is generally detected for at least 3 months after infection, if travel to an area with risk of Zika occurred earlier than 14 days before specimen collection, jurisdictions may consider further evaluation for travel-associated exposures. Please contact CDC for further assistance.