



HEALTH ADVISORY #146 Vectorborne Disease Season

TO: West Virginia Healthcare Providers, Hospitals and Other Healthcare Facilities

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WVDHHR, Bureau for Public Health**

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LOCAL HEALTH DEPARTMENTS: PLEASE DISTRIBUTE TO COMMUNITY HEALTH PROVIDERS, HOSPITAL-BASED PHYSICIANS, INFECTION CONTROL PREVENTIONISTS, LABORATORY DIRECTORS, AND OTHER APPLICABLE PARTNERS

OTHER RECIPIENTS: PLEASE DISTRIBUTE TO ASSOCIATION MEMBERS, STAFF, ETC.

With the spring season comes an increase in mosquito and tick activity in West Virginia. Vectorborne disease season typically runs from May to November each year. Human cases of vectorborne disease are most frequently reported during summer since people are most active and outdoors when the weather is warm.

Mosquito-borne diseases occur annually in West Virginia beginning in early spring and peak in August and September. Arboviral infections, particularly La Crosse encephalitis (LAC) and West Nile virus (WNV), are endemic mosquito-borne diseases identified in West Virginia. LAC is a particular serious disease that affects young children. In 2017, four LAC cases and one WNV case were reported in West Virginia. Persons with severe arboviral infections will often have symptoms of encephalitis, and hospitalizations often occur in neuroinvasive cases. Imported mosquito-borne diseases are occasionally reported in the state. Two malaria cases and one Zika virus disease case (a positive viremic blood donor) were reported in 2017. Zika virus cases have dramatically declined globally since 2016.

In 2017, 675 confirmed and probable cases of tickborne diseases were reported in West Virginia of which 96% were Lyme disease cases. Tickborne rickettsial diseases (TBRDs), such as anaplasmosis, ehrlichiosis, and Rocky Mountain spotted fever, are also reported in the state each year. Treatment with antibiotics (i.e. doxycycline) is recommended for patients with Lyme disease and TBRDs. Babesiosis is an emerging tickborne disease in West Virginia and has been reported in eastern West Virginia counties.

Laboratory testing is important in diagnosing mosquito-borne and tickborne diseases. For WNV and LAC, immunoassays that detect virus-specific IgM antibodies in cerebrospinal fluid and serum are preferred. Testing guidance for Zika virus is available at <https://www.cdc.gov/zika/hc-providers/testing-guidance.html>. The Centers for Disease Control and Prevention (CDC) recommend a two-tier testing approach for Lyme disease: an IFA/EIA screen followed by IgG and IgM Western blots. The gold standard test for TBRDs is IFA using pathogen-specific antigen performed on paired serum specimens (taken during the first week of illness and again two to four weeks later). Polymerase chain reaction (PCR) testing is also appropriate for TBRDs.

For more information on mosquito-borne and tickborne diseases in West Virginia, visit the Division of Infectious Disease Epidemiology (DIDE) website at www.dide.wv.gov. You may also contact your LHD or call the DIDE at (304) 558-5358, extension 1 or the answering service at (304) 925-9946.

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