



HEALTH ADVISORY #159 Vector-borne Disease Season

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

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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. Vector-borne diseases occur annually beginning in early spring and peaking in August and September when people and arthropod vectors are most active outdoors. Health providers can educate patients on preventive measures, including use of recommended insect repellents with DEET and permethrin, to prevent bites and control diseases spread by mosquitoes and ticks.

Mosquitoborne Diseases in West Virginia: La Crosse encephalitis (LAC) and West Nile virus (WNV) are endemic mosquitoborne diseases in West Virginia; six LAC cases and two WNV cases were reported in 2018. Severe LAC involving encephalitis occurs most commonly in children under age 16 and is often accompanied by seizures. Symptoms of arboviral diseases include fever, headache, body aches, joint pain, vomiting, diarrhea, rash, and lethargy. In severe cases, symptoms can include encephalitis, seizures, coma, paralysis, and meningoencephalitis. Imported mosquitoborne diseases are occasionally reported in the state as well; three malaria cases and one dengue case were reported in 2018.

Tickborne Diseases in West Virginia: In 2018, 697 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 spotted fever rickettsiosis, are also reported annually. Clinical suspicion of any TBRD is sufficient to begin treatment as delay may result in severe illness and even death. Babesiosis is an emerging tickborne disease that has been reported in two eastern counties. Babesiosis can cause hemolytic anemia and can be a life-threatening disease in persons without a spleen or in persons with weakened immunity or other serious health conditions. For comprehensive information on tickborne diseases, including general lab findings, diagnosis and treatment, please see the Centers for Disease Control and Prevention's (CDC) "[Tickborne Diseases of the United States. A Reference Manual for Healthcare Providers.](#)"

Laboratory Testing: Lab testing is important in diagnosing vector-borne diseases. For WNV and LAC, immunoassays that detect virus-specific IgM antibodies in cerebrospinal fluid and serum are preferred. The CDC recommends 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 vector-borne diseases in West Virginia, visit the Office of Epidemiology and Prevention Services website at www.oeps.wv.gov. You may also contact your local health department or call the Division of Infectious Disease Epidemiology at (304) 558-5358, extension 1 or the 24/7 answering service at (304) 347-0843.

This message was directly distributed by the West Virginia Bureau for Public Health to local health departments and professional associations. Receiving entities are responsible for further disseminating the information as appropriate to the target audience.

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.

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