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## Maine Health Alert Network (HAN) System

### PUBLIC HEALTH ADVISORY

**To:** Health Care Providers  
**From:** Dr. Isaac Benowitz, State Epidemiologist  
**Subject:** Ongoing High Risk for Arboviral Infections, Continue to Test Patients  
**Date / Time:** September 26, 2024  
**Pages:** 3  
**Priority:** High  
**Message ID:** 2024PHADV031

### Ongoing High Risk for Arboviral Infections, Continue to Test Patients

Arboviral activity is high in Maine and across the northeast U.S. region. Maine has detected Eastern Equine Encephalitis (EEE), Jamestown Canyon virus (JCV), and West Nile virus (WNV) in mosquitoes, wild birds, domestic animals, and/or humans in 13 of our 16 counties. **The purpose of this health advisory is to remind clinicians to test for mosquito-borne arboviruses in appropriate patients.**

#### Arboviral Detections in Maine, 2024 (as of 9/24/2024)

County	Wild Birds		Mosquito pools			Animals		Humans		
	EEE	WNV	EEE	JCV	WNV	EEE	WNV	EEE	JCV	WNV
Cumberland		10								1
Hancock		1								
Kennebec		2								
Knox		2								
Lincoln		1				1	1			
Oxford		1								
Penobscot	1	8	1	3		5				
Piscataquis		1								
Sagadahoc		1								
Somerset	1	2				1				
Waldo	1				1	2				1*
Washington		2								
York		2		1						
<b>State-wide</b>	<b>3</b>	<b>33</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>9</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>

\*travel-acquired

Birds are the reservoir for EEE and WNV. Once the virus gets into the mosquito population it amplifies and the risk to humans and domestic animals increase. Arboviral infections in birds are often a precursor to infections in mosquitoes and humans. All New England states are seeing increased arboviral activity in 2024 and several states have reported human infections with EEE and WNV in recent weeks.

Maine has limited mosquito surveillance, and mosquito pool testing results should not be used as the only measure of risk of infection to humans. Recent positive results in domestic animals indicate that both EEE and WNV are still circulating in mosquitoes across the state, and the risk to humans and animals is high. The risk will remain high as long as mosquitoes are active, and the season is only considered over once there are two hard frosts. Human cases may continue to be identified even after the hard frosts as symptoms may take days to weeks to develop.

For the latest information on arbovirus activity, refer to the Maine CDC's [weekly arboviral surveillance reports](#).

For more information on virus epidemiology, clinical presentations, risk factors, and prevention of arboviral diseases, please refer to two recent Maine CDC health advisories on this topic:

- [Arboviral Update](#) (July 9, 2024)
- [Increased Arboviral Activity in Maine](#) (August 22, 2024)

## Education

Educate patients regarding prevention. Please encourage patients to:

- Use an [EPA-approved repellent](#) containing DEET, picaridin, IR3535 (ethyl butylacetylaminopropionate), or oil of lemon eucalyptus on skin and clothing. Permethrin can only be used on clothing and is effective through several washes.
- Wear protective clothing that covers skin. This includes long sleeve shirts, pants, and socks.
- Identify any stagnant water sources and drain them.
- Check all windows for intact and tight-fitting screens.

## Testing

Diagnosis of arboviral infections relies on a high index of suspicion, travel history, and on results of specific laboratory tests. EEE, JCV, WNV, or other arboviral infections should be considered in any individual with an onset of unexplained influenza-like illness, encephalitis, meningitis, or high fever in the summer and fall, and especially those over age 50 years or younger than age 15 years. The local presence of EEE, JCV, and WNV in animals and mosquito pools should further raise the index of suspicion.

Maine's Health and Environmental Testing Laboratory (HETL) and many reference laboratories can test for EEE and WNV. Testing for JCV is only available at U.S. CDC and some reference laboratories.

Both the HETL [Requisition Form](#) and [Arboviral Submission Form](#) are required for testing. Samples may be forwarded to U.S. CDC for Plaque Reduction Neutralization Test (PRNT) confirmation based on patient symptoms. Providers may also submit CSF samples (free of charge) for viral metagenomics for patients with encephalitis of unknown etiology.

A negative PCR result does **NOT** rule out arboviral infection. Samples from persons with positive IgM and negative PCR results should be forwarded and confirmed at U.S. CDC. Laboratories should forward all arboviral IgM positive samples to HETL for confirmation testing.

In some instances, arboviruses from the same genus (e.g., flaviviruses such as Dengue, Powassan, and West Nile virus) can produce cross-reactive antibodies. In areas where two or more closely related arboviruses occur, serologic testing for more than one virus may be needed to determine the specific causative virus.

### **Treatment**

Treatment of arboviral infections is supportive. There are no specific treatments.

### **Reporting**

Arboviral illnesses are reportable in Maine. All **suspected** cases, and positive laboratory reports should be reported by electronic laboratory reporting, by fax to 1-800-293-7534, or by phone to Maine CDC's 24/7 disease reporting and consultation line at 1-800-821-5821.

### **Additional Information**

- Arboviral testing in Maine (for health care providers): [www.maine.gov/dhhs/mecdc/infectious-disease/epi/vector-borne/documents/Arboviral-Testing-Healthcare.pdf](http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/vector-borne/documents/Arboviral-Testing-Healthcare.pdf)
- How to submit human arboviral specimens to HETL: [www.maine.gov/dhhs/mecdc/public-health-systems/health-and-environmental-testing/micro/submitting-samples.shtml](http://www.maine.gov/dhhs/mecdc/public-health-systems/health-and-environmental-testing/micro/submitting-samples.shtml)
- Maine CDC arboviral diseases website: [www.maine.gov/dhhs/vectorborne](http://www.maine.gov/dhhs/vectorborne)
- Weekly arboviral reports (June to October): [www.maine.gov/dhhs/mecdc/infectious-disease/epi/vector-borne/arboviral-surveillance.shtml](http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/vector-borne/arboviral-surveillance.shtml)
- U.S. CDC mosquito website: [www.cdc.gov/mosquitoes](http://www.cdc.gov/mosquitoes)
- Maine CDC disease reporting and consultation line: **1-800-821-5821** (available 24/7)