

Arboviral Illness

Definition:

Arboviral Illnesses are caused by arboviruses (**Ar**thropod-**borne viruses**) that are primarily spread by blood-feeding arthropods like mosquitoes and ticks. These viruses can cause disease in humans, animals, and birds, such as Eastern equine encephalitis and West Nile virus.

Signs and symptoms:

The symptoms of arboviral infections can range from very mild to very severe. The majority of people infected by these viruses either do not show any symptoms or experience mild fever, head and body aches, and a lack of energy. More severe symptoms can include high fever, stiff neck, tremors, altered mental status, inflammation of the brain, respiratory distress, paralysis, coma, and death.

Transmission:

Arboviral infections are transmitted through the bite of infected mosquitoes and ticks. In a small number of cases, arboviruses have been spread through blood transfusions, organ transplants, breast milk, and during pregnancy from mother to baby. These infections are not spread through casual contact.

Diagnosis:

Arboviral infections can only be diagnosed by a healthcare provider. If arboviral infection is suspected, samples of blood and cerebrospinal fluid (CSF) will be collected and sent to a laboratory for diagnosis.

Role of the School Nurse:

Prevention

- Make efforts to reduce exposure human exposure to mosquitoes, including:
 - Draining artificial sources of standing water
 - Covering exposed skin
 - Using EPA approved repellents
 - Avoiding being outdoors during the hours when mosquitoes are most active; this may include rescheduling sporting practices/games and other outdoor events
- School nurse should encourage the use of EPA approved repellents when outside (following local policy guidelines).
 - School nurses can apply repellent with parental permission (see <http://www.maine.gov/agriculture/pesticides/schoolipm/what/whats-new.htm>)
- If arboviral infection has been identified in the town, the school should consult with their District Integrated Pest Management (IPM) coordinator

Treatment Recommendations

- If symptoms are noted, the child should be referred to his or her primary care provider for evaluation.
- There is no specific treatment for arboviral infections. People with mild infections usually recover on their own. Health care providers can provide supportive therapy to patients with severe infections.

Exclusions

- There is no need to exclude students from school for arboviral illness.
- Educational modifications may be warranted in children with a positive diagnosis.

Reporting Requirements

- Arboviral illness is reportable within 48 hours of recognition or strong suspicion of illness.

Resources:

- Maine CDC Vector-borne Disease website: <http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/vector-borne/index.shtml>
- Federal CDC Arboviral Encephalitides website: <http://www.cdc.gov/ncidod/dvbid/arbor/index.htm>
- Insect Repellent Finder (including time of protection)
<http://cfpub.epa.gov/oppref/insect/index.cfm#searchform>