



Ehrlichiosis

Definition:

Ehrlichiosis is an infection caused by bacteria in the genus *Ehrlichia*. These bacteria are most commonly transmitted by the bite of an infected lone star tick (*Amblyomma americanum*).

Signs and symptoms:

Symptoms of ehrlichiosis can range from mild to very severe and may include: fever, headache, chills, malaise, muscle pain, nausea/vomiting/diarrhea, confusion, and rash (in up to 60% of children). Severe symptoms may include: difficulty breathing and bleeding disorders. It can be fatal if not treated correctly. People who are immunocompromised or elderly are at higher risk for severe disease.

Transmission:

Ehrlichiosis is primarily transmitted to a person through the bite of an infected lone star tick. This tick is infrequently found in the state of Maine, but is common in the southeastern and south-central United States. Rarely, ehrlichiosis can be transmitted by receiving blood transfusions from an infected donor.

Diagnosis:

Ehrlichiosis is diagnosed by clinical symptoms and laboratory tests. A blood test is necessary for confirmation. Co-infections with other tickborne diseases may occur and should be considered.

Role of the School Nurse:

Prevention

- Provide education on prevention efforts including: wearing protective clothing, using an EPA-approved repellent, using caution in tick infested areas, and performing daily tick checks.
- Encourage the use of EPA-approved repellents when outside (following local policy guidelines), and always performing a tick check when returning indoors.
 - School nurses can apply repellent with parental permission
- If a tick is found, the school nurse should remove the tick using tweezers or a tick spoon.
 - Tick identification cards are available at: www.maine.gov/dhhs/order.
 - Testing of the tick is not recommended. Whole ticks in safe containers may be given to parents.

Treatment Recommendations

- If symptoms are noted, the child should be referred to their primary care provider for treatment.
- Antibiotic treatments are available and are usually prescribed for at least 5 - 7 days.

Exclusions

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

Reporting Requirements

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

Resources:

- Maine CDC Ehrlichiosis website (including fact sheet): www.maine.gov/dhhs/ehrichiosis
- Tickborne Diseases of the United States – A Reference Manual for Healthcare Providers: www.maine.gov/dhhs/mecdc/infectious-disease/epi/vector-borne/documents/Tickborne_Diseases_Guide.pdf
- Tick Submission information (for identification) www.ticks.umaine.edu

- Federal CDC Ehrlichiosis website: www.cdc.gov/ehrlichiosis/