



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 Manual for Healthcare Providers: www.cdc.gov/ticks/hcp/data-research/tickborne-disease-reference-guide
- Tick identification and testing: www.ticks.umaine.edu
- Federal CDC Ehrlichiosis website: www.cdc.gov/ehrichiosis/