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.
  - 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.mainegov/dhhs/ehrlichiosis](http://www.mainegov/dhhs/ehrlichiosis)
- Tick Submission information (for identification) [www.ticks.umaine.edu](http://www.ticks.umaine.edu)
• Federal CDC Ehrlichiosis website: www.cdc.gov/ehrlichiosis/