

Rocky Mountain Spotted Fever (RMSF)

Definition:

Rocky Mountain Spotted Fever (RMSF) is the most severe tick-borne rickettsial illness in the United States. It is caused by infection with the bacterial organism *Rickettsia rickettsii*.

Signs and symptoms:

The initial symptoms consist of fever, nausea, vomiting, muscle pain, lack of appetite, and severe headache. Rash, abdominal pain, joint pain, and diarrhea may develop later. This can be a severe, life-threatening illness and most patients are hospitalized.

Transmission:

The organism that causes RMSF is transmitted to humans by the bite of an infected tick. The American dog tick, brown dog tick and Rocky Mountain wood tick transmit RMSF in the United States. RMSF is rarely seen in Maine and over half the reported cases come from five states (North Carolina, Oklahoma, Arkansas, Tennessee, and Missouri).

Diagnosis:

RMSF is diagnosed through a combination of clinical signs and symptoms as well as laboratory tests.

Role of the School Nurse:

Prevention

- Provide education to students and staff regarding prevention efforts including: Wearing protective clothing, using insect repellent, using caution in tick infested areas, and performing daily tick checks.
- School nurse should encourage the use of insect repellents when outside (following local policy guidelines), and always performing a tick check when returning indoors.
 - School nurses can apply insect repellent with parental permission (see <http://www.maine.gov/agriculture/pesticides/schoolipm/what/whats-new.htm>)
- If a tick is found, the school nurse should remove the tick using tweezers or a tick spoon. Identification of the tick may be useful.
- Tick cards are available for identification at: <http://www.maine.gov/dhhs/boh/ddc/epi/vector-borne/posters/index.shtml>
- Whole ticks, placed in a sealed container, may be given to the parents.
- Testing of the tick is not recommended.

Treatment Recommendations

- Treatment is with antibiotics, the best antibiotic to treat RMSF is doxycycline. Treatment should be initiated based on clinical and exposure information and should not be delayed to wait for laboratory confirmation.

Exclusions

- No exclusions are recommended for students or staff with RMSF.

Reporting Requirements

- Rocky Mountain Spotted Fever is a reportable disease – report to Maine CDC at 1-800-821-5821

Resources:

- Maine CDC Rocky Mountain Spotted Fever website <http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/vector-borne/rmsf/index.html>
- Maine CDC reference guide to tick-borne diseases in Maine <http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/vector-borne/documents/tick-reference-guide.pdf>
- Federal CDC Rocky Mountain Spotted Fever website <http://www.cdc.gov/rmsf/>
- Insect Repellent Finder (including time of protection) <http://cfpub.epa.gov/oppref/insect/index.cfm#searchform>
- Tick Submission for Identification to the University of Maine <http://extension.umaine.edu/ipm/tickid/>