Has Rocky Mountain spotted fever (RMSF) been reported in West Virginia?

Yes, 55 cases of confirmed and probable cases of Rocky Mountain spotted fever (RMSF) were reported in West Virginia from 2000 to 2012. This number is likely an underestimate since the disease is often not reported or diagnosed.

What are the signs and symptoms of RMSF?

The first symptoms of RMSF typically begin 2-14 days after the bite of an infected tick. The following is a list of symptoms commonly seen with this disease, however, it is important to note that the number and combination of symptoms varies greatly from person to person:

- Fever
- Rash
- Headache
- Nausea
- Vomiting
- Abdominal pain
- Muscle pain
- Lack of appetite
- Conjunctival injection (red eyes)
What is the best way to diagnose and treat RMSF?

RMSF challenging to diagnose and treat because the symptoms vary from patient to patient and can easily resemble other, more common diseases. Diagnosis of RMSF must be made based on clinical signs and symptoms, and can later be confirmed using specialized confirmatory laboratory tests. Treatment should never be delayed pending the receipt of laboratory test results as antibiotic therapy is most effective at preventing death if started within the first few days of symptom onset.

Doxycycline is the first line of treatment for adults and children of all ages. The standard duration of treatment is 7-14 days.

What laboratory testing should be ordered to confirm my diagnosis?

The gold standard for diagnosis is paired serum samples for indirect immunofluorescent assay (IFA) with *Rickettsia rickettsii* antigen. Additional information about testing can be found at [http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5504a1.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5504a1.htm).

What tips can I give my patients to prevent infection with RMSF and other tickborne diseases?

The best way to prevent tickborne illnesses is to avoid tick habitats (wooded or brushy areas with high grass). Repellents that contain 20% DEET should be applied to exposed skin keep ticks off the body when outdoors. Permethrin products can be used on clothing and gear (e.g. shoes, tents, etc.) to repel ticks; permethrin-treated items can remain protective for several washings.

Full-body tick checks should be conducted on upon returning from the outdoors using a hand-held mirror. Parents should check their children for ticks under the arms, in and around the ears, inside the belly button, behind the knees, between the legs, around the waist, and especially in their hair. Pets should also be checked since ticks can use pets as a vehicle to enter homes.

Should RMSF be reported to the local health department?

Yes. Reporting helps us to understand the distribution of the disease across West Virginia. Additionally, we can use surveillance information about RMSF to provide prevention messages to the public. Your role in the diagnosing and reporting RMSF is very important to state and national surveillance.

Who should I contact if I have any additional questions?

For more information about RMSF, testing, and surveillance, contact the Division of Infectious Disease Epidemiology (DIDE) at (800)-423-1271, extension 1, or visit [www.dide.wv.gov](http://www.dide.wv.gov). You can also contact the local health department in your county.

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