





Rocky Mountain Spotted Fever and Human Monocytic Ehrlichiosis Quick Reference

	Rocky Mountain Spotted Fever (RMSF)	Human Monocytic Ehrlichiosis (HME)
Causative agent	<i>Rickettsia rickettsii</i>	<i>Ehrlichia chaffeensis</i>
Tick Vectors	<i>Dermacentor variabilis</i> American dog tick	<i>Amblyomma americanum</i> Lone star tick
RMSF and HME are transmitted by tick bites .		
<p>Epidemiology</p> <p>RMSF and HME are the two most common tick-borne diseases in Georgia.</p>  <p>The tick vectors must be attached for at least 4 hours to transmit disease.</p>	<ul style="list-style-type: none"> •Reportable in Georgia since 1933. •Most cases occur in the southeastern and south-central U.S. •Two-thirds of cases are in children under the age of 15. •The case fatality rate is 3-5%. •Only 1-3% of ticks carry the bacteria that cause RMSF. •To prevent tick bites, wear light-colored clothing, tuck shirt into pants and pants into socks, wear an insect repellent containing DEET on skin and permethrin on clothing, and do a full-body tick check at the end of the day. 	<ul style="list-style-type: none"> •Discovered in 1986. •Most cases occur in the southeastern and south-central U.S. •White-tailed deer host all life stages of the tick and are probably the major reservoir for the bacteria. •Severe complications and death have occurred, but most infections are thought to be sub-clinical. •Elderly and immunocompromised persons are at particular risk for severe manifestations. •Published hospitalization fatality rates of 2-5% are probably overestimates.
<p>Clinical Presentation</p> <p>You do not always get a rash.</p>  <p>Symptoms are very similar to other diseases and may be difficult to differentiate.</p>	<ul style="list-style-type: none"> •Incubation period is 3-14 days. •Initial symptoms may include: fever, severe headache, muscle aches, nausea, vomiting, and loss of appetite. •Later symptoms: rash (2-6 days after onset of fever), abdominal pain, joint pain, and diarrhea. •Rash usually starts (as small, flat, pink spots that do not itch) on wrists and ankles and then spreads. •Can lead to encephalitis, meningitis, myocarditis, respiratory failure, renal dysfunction, and death. 	<ul style="list-style-type: none"> •Incubation period is 5-21 days. •Symptoms usually include fever, fatigue, headache, and muscle aches. •Other symptoms include nausea, vomiting, diarrhea, cough, joint pain, confusion, rash (often absent, more common in children). •Severe manifestations include disseminated intravascular coagulopathy, encephalitis, meningitis, acute respiratory distress syndrome, renal failure, seizures, coma, and death.
<p>Treatment</p> <p>RMSF and HME can be cured with antibiotics.</p>	<ul style="list-style-type: none"> •It is not necessary to seek health care for a tick bite unless you become ill. If you get sick, your doctor will take 2 blood samples (one at your first visit and one a few weeks later) to test for tick-borne diseases. •Suspect cases should be treated based on symptoms and exposure history without waiting for laboratory results. •Tetracyclines are the drugs of choice, with improvement within 24-72 hrs. •Chloramphenicol is an alternative therapy for some patients with RMSF, but the efficacy is undefined for HME. 	

Adapted from the Centers for Disease Control and Prevention, Viral and Rickettsial Zoonoses Branch website <http://www.cdc.gov/ncidod/dvrd/branch/vrzb.htm>.