Babesiosis for Health Care Providers

This program is presented by the Centers for Disease Control and Prevention.

Babesiosis is a preventable, treatable tickborne disease caused by parasites that infect red blood cells. *Babesia* parasites are transmitted by the bite of infected ticks, and can also be spread via contaminated blood transfusions.

Welcome to CDC Audio Rounds. I'm Amanda Burke, a health communications specialist at the Centers for Disease Control and Prevention.

In the US, tickborne transmission occurs primarily in parts of the Northeast and upper Midwest and usually peaks during the warmer months. Transfusion transmission can occur anywhere, any time.

Babesia infections can range from asymptomatic to severe. For those with symptoms, the incubation period typically ranges from one week to several months. Symptoms are nonspecific and may include fever, chills, body aches, or fatigue. Some people will develop mild splenomegaly, hepatomegaly, or jaundice. Hemolytic anemia and thrombocytopenia are common. People who are asplenic, immunosuppressed, or elderly are at increased risk for life-threatening infection.

Diagnosis requires a high index of suspicion, in part because the clinical manifestations are nonspecific. In symptomatic patients with acute infection, it is diagnosed by microscopic examination of blood smears. A manual review of thick and thin blood smears should be requested. Confirmation by a reference laboratory may be needed to distinguish between *Babesia* and malaria parasites. Molecular techniques can be used to detect low levels of parasites and to differentiate among *Babesia* species. Antibody detection by serologic testing can provide supportive evidence for infection, however, antibody tests do not reliably distinguish active infection from prior infection.

People who are asymptomatic typically do not require treatment. Those who are symptomatic are usually treated for seven to ten days, either with atovaquone plus azithromycin, or, for severe cases, with clindamycin plus quinine. Patients who test positive for *Babesia* infection should be advised to indefinitely refrain from donating blood.

People who engage in outdoor activities in areas where babesiosis is endemic are at higher risk for infection. The best way to prevent a tickborne *Babesia* infection is to avoid exposure to tick habitats. Advise patients who live in or travel to areas where babesiosis is found, to avoid overgrown brush, apply repellents, and wear pants and long-sleeved shirts when outdoors. People should shower soon after being outdoors and check their entire body for ticks.

For more information, please visit www.cdc.gov/parasites/babesiosis.