



**LABORATORY ALLIANCE** of Central New York, LLC

## BLOOD PARASITE SCREEN

Effective February 22, 2010, Laboratory Alliance will offer a Blood Parasite Screen test. This peripheral blood smear screen replaces the Malaria Screen and provides a comprehensive examination for all potential bloodborne pathogens detectable by light microscopy.

### **Clinical Significance:**

The major bloodborne parasites causing disease in the United States include *Plasmodium spp.* (malaria), *Babesia spp.* (babesiosis) *Trypanosoma cruzi* (Chagas disease), and *Leishmania spp.* (leishmaniasis). In nature, these parasites are typically spread by insect vectors (i.e., ticks) rather than by blood. Within the United States, the risk for vector-borne transmission is very low for all of these parasites except for some of the *Babesia* species.

The signs and symptoms of bloodborne parasite infection can be vague and often show significant overlap between organisms. Examples include fever, chills, sweats, headaches, nausea and vomiting, body aches and general malaise. Geographic locale and/or travel history are useful in guiding testing and in making a definitive diagnosis.

Parasites can be directly observed in peripheral blood smears by microscopic examination; however, this method may only be sensitive during the acute phase of infection when high numbers of circulating parasites are present. Multiple smears, collected at different times, may need to be examined in order to detect low levels of parasitemia. It is sometimes difficult to distinguish *Babesia* species from *Plasmodium spp.* (malaria) by blood-smear examination. Also, *Babesia* species typically cannot be distinguished from each other by microscopy. To ensure accurate diagnosis, reference laboratory confirmation is often indicated, sometimes utilizing alternative testing strategies (i.e., serologic and molecular methods).

A negative finding for bloodborne parasites by light microscopic examination does not rule out the presence of infection. If clinical suspicion remains high, further testing should be initiated. The CDC website for bloodborne parasites, <http://www.cdc.gov/ncidod/dpd/bloodborne.htm>, provides additional information and guidance for laboratory testing.



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<b>Test Code:</b>	BPSCR
<b>Method:</b>	Light Microscopy
<b>Specimen Requirements:</b>	One 3 mL lavender (EDTA) top tube
<b>Storage and Transport:</b>	3 mL whole blood at 20 25° C.
<b>Stability:</b>	Ambient: 24 hours
<b>Unacceptable Conditions:</b>	Clotted specimens
<b>Testing Schedule:</b>	Daily – 24 hours
<b>CPT Code:</b>	87207
<b>Billing Code:</b>	3010366

**For More Information:** For questions or concerns regarding this test service, please contact Mr. Russ Rawling, Microbiology Manager at 315-410-7060 or Ms. Anne Chamberlain, Hematology Manager, at 315-410-7048.

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