**CANINE EHRlichiosis**

Canine ehrlichiosis is caused by the bacterium *Ehrlichia canis* and is transmitted by the brown dog tick. The infection may progress to a subclinical phase, which can last days, months or years. Chronic infections, if left untreated, can lead to bone marrow dysfunction or renal disease.

**Did you know?**
- Dogs coinfected with *E. canis* and *A. platys* were found to have more severe anemia and thrombocytopenia than dogs with either single infection.¹
- *E. canis*, and likely *A. platys*, are transmitted by the same vector, the brown dog tick.
- In a study of healthy dogs with antibodies to *E. canis*, 39% were thrombocytopenic.²

<table>
<thead>
<tr>
<th>What to do with your result</th>
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</thead>
<tbody>
<tr>
<td><strong>Positive result</strong></td>
<td>The dog has been exposed and may be infected</td>
</tr>
<tr>
<td><strong>Negative result</strong></td>
<td>Exposure is unlikely</td>
</tr>
<tr>
<td><strong>What to do next?</strong></td>
<td>Check for hematologic abnormalities (CBC and/or blood film) and changes in serum proteins</td>
</tr>
<tr>
<td><strong>Diagnose</strong></td>
<td>Check for hematologic abnormalities (CBC and/or blood film) and changes in serum proteins</td>
</tr>
<tr>
<td><strong>DO support ehrlichiosis</strong></td>
<td>Clinical signs and/or laboratory findings</td>
</tr>
<tr>
<td><strong>DO NOT support ehrlichiosis</strong></td>
<td>Clinical signs and/or laboratory findings</td>
</tr>
<tr>
<td><strong>Treat</strong></td>
<td>Doxycycline/tetracycline</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>Not generally recommended</td>
</tr>
<tr>
<td><strong>Monitor</strong></td>
<td>Evaluate platelet count in 1 week; if no improvement, pursue other diagnoses</td>
</tr>
<tr>
<td><strong>3</strong></td>
<td>Recheck CBC at wellness exams</td>
</tr>
<tr>
<td><strong>Prevent</strong></td>
<td>Discuss disease prevention strategies</td>
</tr>
</tbody>
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*Additional diagnostics may include PCR or *Ehrlichia* IFA titer. See the Diagnostics for Sick Patients section of this guide for more information on serological and PCR testing.*

**Medical Background**

**Primary vector**
*Rhipicephalus sanguineus* (brown dog tick)

**Transmission**
Time needed for transmission is unknown

**Pathogen**
*Ehrlichia canis* infects canine monocytes

**Clinical presentation**
Can present acutely:
- Fever
- Anorexia
- Lethargy
- Uveitis
- Lymphadenomegaly
- Bleeding disorders
- CNS signs

Has a chronic nature:
- Weight loss
- Bleeding disorders
- Polyarthritis
- Seizures
- Multisystemic signs

**Laboratory abnormalities**
- Anemia
- Thrombocytopenia
- Hyperglobulinemia
- Hypoalbuminemia
- Pancytopenia
- Proteinuria