



## Health

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## Santé

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September 25, 2015

Dear Colleague:

### **Re: TICKBORNE INFECTIONS IN MANITOBA**

- **It is important for all Manitoba physicians to know that cases of Anaplasmosis, Babesiosis and Lyme disease occur in the province**
- **Patients may present at any stage of disease;** physicians need to be familiar with signs and symptoms of these tick-borne diseases
- Consultation with an appropriate specialist is recommended for patients who present with suspected anaplasmosis, babesiosis and disseminated or late Lyme disease
- Early treatment improves outcome; where *early Lyme disease* is suspected, treatment should be initiated *without waiting for laboratory confirmation*
- *Ixodes scapularis*, or blacklegged ticks, are the ticks that transmit these tick-borne diseases

### **Anaplasmosis**

Blacklegged ticks infected with *Anaplasma phagocytophilum*, the causative agent of human anaplasmosis, are present in Manitoba. Multiple human cases of anaplasmosis acquired in Manitoba have been reported.

As of January 1<sup>st</sup>, 2015, Anaplasmosis is now considered a REPORTABLE disease.

The incubation period is 7-10 days after the tick bite.

Symptoms may include:

- Fever, chills, headache, arthralgia, nausea and vomiting, often in association with leukopenia, thrombocytopenia and/or elevated liver enzymes
- Severe manifestations can occur rarely and may include pulmonary infiltrates, bone marrow hypoplasia, DIC, encephalitis or meningitis and renal failure.

Treatment is doxycycline 100mg PO BID for 2 weeks.

### **Babesiosis**

*Babesia microti*, the causative agent, has been detected in blacklegged ticks and/or small mammal tissues in at least four fairly dispersed locations in Manitoba. A human case of babesiosis acquired in Manitoba has been reported.

As of January 1<sup>st</sup>, 2015, Babesiosis is now considered a REPORTABLE disease.

The incubation period is one to six weeks after the tick bite.

Symptoms may include:

- Nonspecific flu-like symptoms, such as fever, chills, sweats, headache, body aches, loss of appetite, nausea, or fatigue
- Hemolytic anemia

Treatment does **NOT** include Doxycycline. It is important to consult a specialist when babesiosis is suspected.

Risk factors for severe babesiosis include asplenia, advanced age, and other causes of impaired immune function (e.g., HIV, malignancy, corticosteroid therapy).

### **Lyme Disease**

The updated Manitoba Health Lyme disease protocol is available at:  
<http://www.gov.mb.ca/health/publichealth/cdc/protocol/lyme.pdf>.

Patients may present at any stage of Lyme disease including the later stages which can make diagnosis challenging. Stages of Lyme disease are described in more detail in the protocol:

- **Early Lyme disease** can occur 3 - 30 days post-tick bite
  - Most Lyme disease cases will develop the characteristic erythema migrans skin lesion and/or flu-like symptoms
- If untreated, **Early Disseminated Lyme disease** can occur days to months after infection and last for several months. Symptoms may include:
  - Central and peripheral nervous system symptoms
  - Multiple skin rashes
  - Cardiac symptoms
- If the disease remains untreated, **Late Lyme disease** can last for months to years with symptoms that can include:
  - Recurring arthritis – usually monoarticular
  - Neurological symptoms

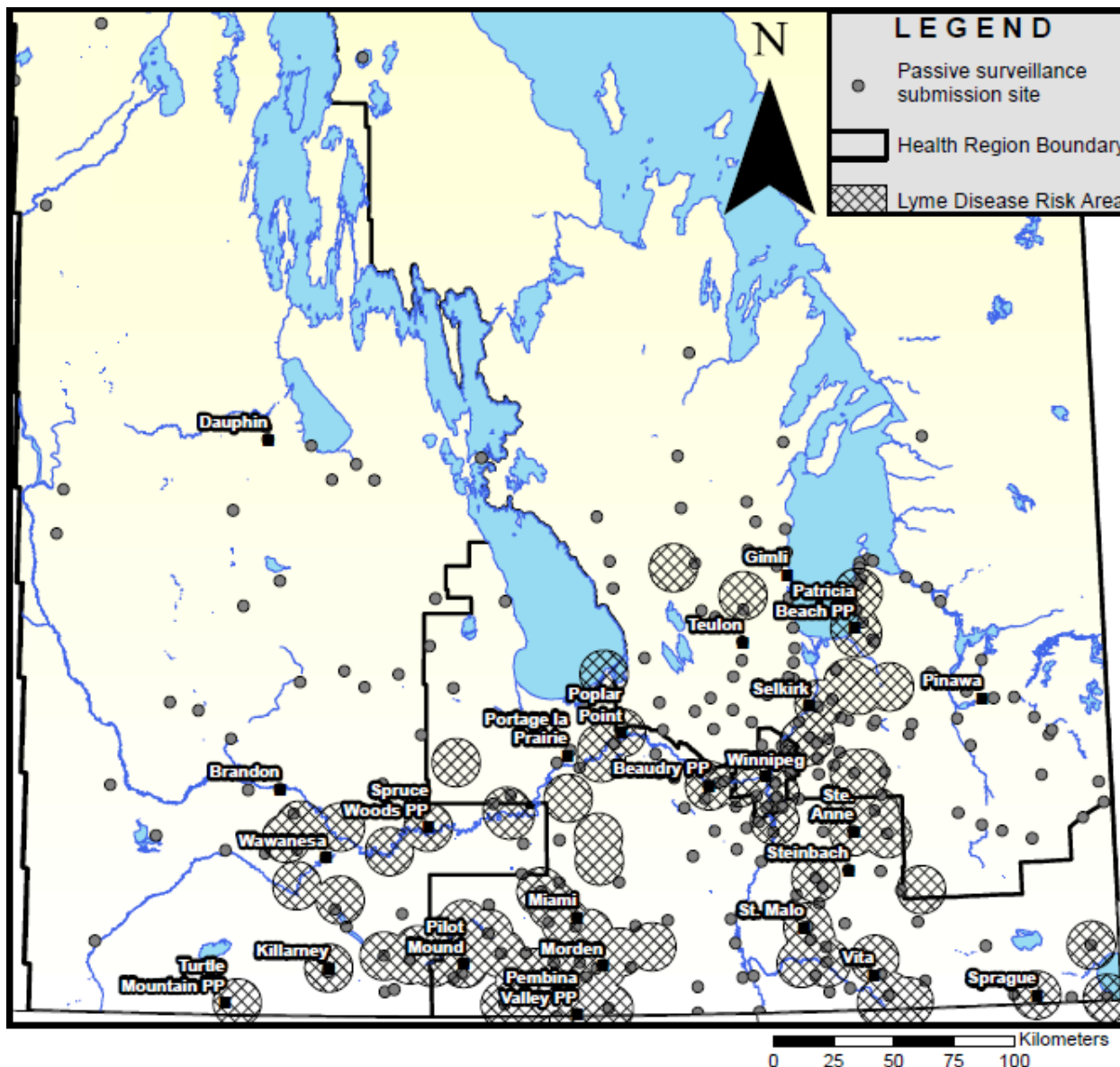
Treatment and laboratory requirements vary with presenting stage; details are in the protocol.

### **Ticks**

The risk of exposure to tick-borne diseases is highest in 'Lyme disease risk areas' where surveillance efforts have revealed established blacklegged tick populations. As the range of these tick populations continues to expand, so too do the boundaries of the risk areas. It should be cautioned that tick-borne diseases can be acquired anywhere in the province as ticks can be transported outside of the known risk areas by migrating birds, however the exposure risk is relatively low.

It is important to note that there are now multiple risk areas identified extending across most of southern Manitoba. The extent of these Risk Areas is noted in maps below.

More information can be found at <http://www.gov.mb.ca/health/lyme/surveillance.html>



**Distribution of known Lyme disease Risk Areas 2014 and sites where blacklegged ticks were submitted as part of the passive surveillance program. Note that cases of Lyme disease or other tick borne disease are not limited to these areas.**

Thank you for your anticipated cooperation.

Sincerely,

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