



## Health

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## Santé

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May 12, 2015

Dear Colleague:

### **Re: LYME DISEASE AND OTHER TICKBORNE INFECTIONS IN MANITOBA**

- **It is important for all Manitoba physicians to know that cases of Lyme disease occur in the province**
- **Patients may present at any stage of disease;** physicians need to be familiar with signs and symptoms of 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 *Borrelia burgdorferi* – the causative agent of Lyme disease to humans and also carry other tick-borne diseases such as **anaplasmosis and babesiosis**

### **Lyme Disease**

Manitoba Health updated the Lyme disease protocol in 2013; it 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 three - 30 days post-tick bite
  - Most, not all, 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. Consultation with an appropriate specialist is recommended for patients who present with disseminated or late disease.

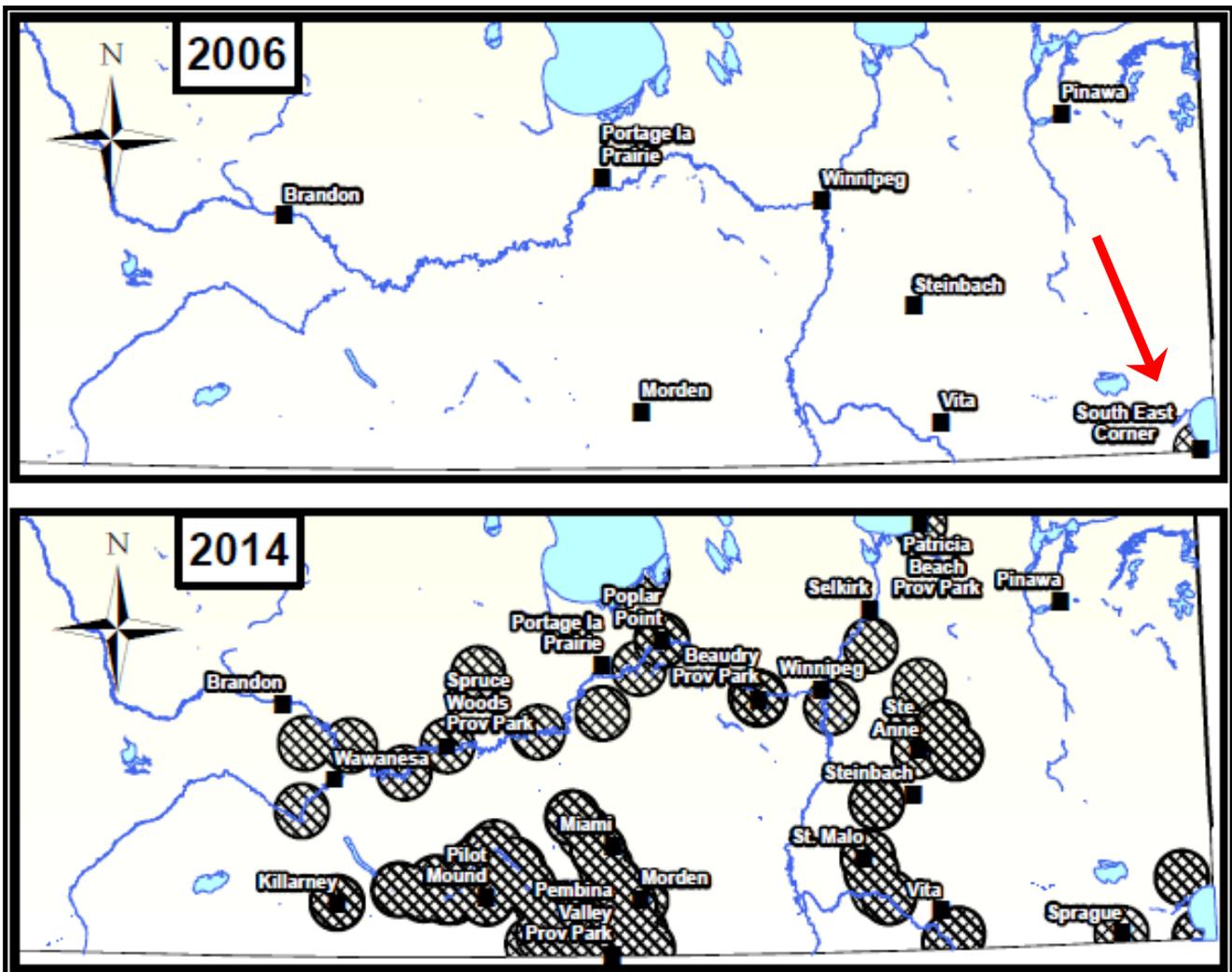
## Ticks

Lyme disease can occur anywhere in the province as ticks can be transported outside of known higher risk areas by migrating birds. The boundaries of these risk areas continue to expand as tick populations expand and surveillance efforts to track and monitor these populations increase.

It is important to note that areas of Lyme Risk now extend across most of southern Manitoba. The extent of these Lyme disease 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 (cross-hatched areas) in 2006 and 2014.**  
Note that cases of Lyme disease or other tick borne disease are not limited to these areas.



## **Anaplasmosis**

Blacklegged ticks infected with *Anaplasma phagocytophilum*, the causative agent of human anaplasmosis, are present in Manitoba. Cases of anaplasmosis acquired in Manitoba have been reported. As of January 1<sup>st</sup>, 2015, Anaplasmosis is now a REPORTABLE disease. 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.

## **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 a REPORTABLE disease. Symptoms may include:

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

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

Consultation with a specialist is recommended for anaplasmosis and babesiosis when suspected.

Thank you for your anticipated cooperation.

Sincerely,

*Original signed by*

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