



**New Brunswick College of Pharmacists**  
**Ordre des pharmaciens du Nouveau-Brunswick**

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**GUIDANCE:**  
**LYME DISEASE PROPHYLAXIS**

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## Lyme Disease Prophylaxis

Developed from the Nova Scotia College of Pharmacists document:

[https://www.nspharmacists.ca/wpcontent/uploads/2016/05/SOP\\_PrescribingDrugs.pdf](https://www.nspharmacists.ca/wpcontent/uploads/2016/05/SOP_PrescribingDrugs.pdf). The New Brunswick College of Pharmacists thanks the NSCP for sharing this resource.

**Note:** This guidance supports the assessment and prescribing for the purposes of reducing the risk of acquiring Lyme disease after a high-risk tick bite. Prescribing medication for the treatment of Lyme disease or as a means to prevent other tick-borne diseases is outside of the scope of practice for pharmacists in New Brunswick.

### Introduction

Pharmacists may **only** prescribe antibiotic prophylaxis (a single dose of doxycycline 200 mg for adults or 4.4 mg/kg for children of any age weighing less than 45 kg) to reduce the risk of acquiring Lyme disease after a high-risk tick bite for asymptomatic adults and children in accordance with established clinical practice guidelines<sup>1</sup>.

Authority to assess and prescribe for prophylaxis for black-legged tick (*Ixodus scapularis*) bites is given in Section 21 of the Regulations of the New Brunswick College of Pharmacists (the Regulations). See also “Prescribing for Preventable Conditions” under Appendix 2.

### Process

To practice as a primary provider of Lyme disease prophylaxis, as with any patient care activity, pharmacists must self-assess to ensure they have the required knowledge, skills, and judgement before engaging in the activity.

Pharmacists who practice as a primary provider of Lyme disease prophylaxis must ensure they have adequate knowledge and skill to:

- Provide patients with information on tick bite prevention strategies,
- Recognize symptoms consistent with Lyme disease,
- Reliably identify the tick as Ixodes (adult female or nymphal blacklegged) tick,
- Estimate the duration of attachment based upon the extent of tick engorgement,
- Provide patients with information on tick removal,

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<sup>1</sup> *Clinical Practice Guidelines by the Infectious Diseases Society of America (IDSA), American Academy of Neurology (AAN), and American College of Rheumatology (ACR): 2020 Guidelines for the Prevention, Diagnosis and Treatment of Lyme Disease.*

- Provide patients with information related to the evidence-based diagnosis and treatment of Lyme disease at both early and late stages.
- Provide patients with information and advice to monitor for symptoms suggestive of tickborne illness and to consult a health care provider if fever, rash, or other symptoms of concern develop, regardless of whether Lyme disease prophylaxis was provided.

### Patient Assessment and Prescribing

Prophylaxis can only be prescribed if the pharmacist can confirm that **ALL** of the following criteria are met:

- ✓ The prophylaxis can be given within 72 hours of tick removal.
- ✓ The patient is asymptomatic.
- ✓ The patient lives in or has recently travelled to an area where blacklegged ticks have been identified. Refer to the New Brunswick Department of Health Lyme Disease website.
- ✓ The tick can be reliably identified as a Ixodes (nymphal or adult female blacklegged) tick.
- ✓ The tick was likely attached for more than 36 hours.
- ✓ Doxycycline is not contraindicated for the patient for the purposes of Lyme disease prophylaxis.

The pharmacist will refer to the [New Brunswick Department of Health Lyme Disease Estimated Risk Map](#) which identifies risk areas in the province (higher, moderate, and lower). If **ALL** other criteria listed above for Lyme disease prophylaxis are met, prophylaxis:

- **should** be given for an attached tick likely acquired in higher risk areas,
- **may be** considered for attached ticks likely acquired in moderate risk areas, but
- **should not** be given for attached ticks likely acquired in lower risk areas.

As part of assessment and prescribing, the pharmacist will discuss with the patient:

- The overall risk of Lyme disease after a bite from an infected tick is low<sup>2</sup>.
- The reported efficacy of Lyme disease prophylaxis, including the option to “wait-and-watch” rather than providing a prescription.
- Signs and symptoms suggestive of early and late Lyme disease.
- The importance of monitoring for and immediately reporting any signs and symptoms suggestive of Lyme disease to a primary care provider.
- The importance of safely removing ticks and sharing information on how that is to be done, using tick bite prevention strategies to prevent Lyme disease and other tick-borne illnesses (e.g., avoiding tick habitat, wearing protective clothing, using insect repellents with DEET or Icaridin, checking for ticks daily and reducing tick habitat around home.)

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<sup>2</sup> *Guidance for Primary Care and Emergency Medicine Providers in the Management of Lyme Disease in Nova Scotia*

## Suggested Clinical Tools

- Clinical Practice Guidelines by the Infectious Diseases Society of America (IDSA), American Academy of Neurology (AAN), and American College of Rheumatology (ACR): 2020 Guidelines for the Prevention, Diagnosis and Treatment of Lyme Disease  
<https://www.idsociety.org/practice-guideline/lyme-disease/>
- INESSS Quebec. Guides and Standards. Post tick bite antibiotic prophylaxis to prevent Lyme disease. Report in support of knowledge transfer tools. Quebec’s provincial medical protocol and the collective May 2019.  
[https://www.inesss.qc.ca/fileadmin/doc/INESSS/Rapports/Biologie\\_medicale/Lyme\\_Diag-traitement/inesss\\_report-lyme-rx-dx.pdf](https://www.inesss.qc.ca/fileadmin/doc/INESSS/Rapports/Biologie_medicale/Lyme_Diag-traitement/inesss_report-lyme-rx-dx.pdf)
- New Brunswick Department of Health - Public Health: Lyme Disease – Information for Health professionals  
[https://www2.gnb.ca/content/gnb/en/departments/ocmoh/cdc/content/vectorborne\\_andzoonotic/tick-borne-diseases/information.html](https://www2.gnb.ca/content/gnb/en/departments/ocmoh/cdc/content/vectorborne_andzoonotic/tick-borne-diseases/information.html)
- New Brunswick Department of Health - Public Health: Tick-Borne Diseases  
[Tick-Borne Diseases \(gnb.ca\)](https://www2.gnb.ca/content/gnb/en/departments/ocmoh/cdc/content/vectorborne_andzoonotic/tick-borne-diseases/information.html)
- Ontario Clinical Tool: Assessment & Prescribing Algorithm for ANTIBIOTIC PROPHYLAXIS TO PREVENT LYME DISEASE FOLLOWING A HIGH-RISK TICK BITE  
<https://www.ocpinfoc.com/wp-content/uploads/2022/12/assessment-prescribing-algorithm-tick-bites-english.pdf>
- Quebec Clinical Tool: Dialogue with your Patient: Options to be discussed with an asymptomatic individual with a tick bite that occurred in a PEP (post-exposure prophylaxis)-designated area  
[https://www.inesss.qc.ca/fileadmin/doc/INESSS/Rapports/Biologie\\_medicale/Lyme\\_PPE/Lyme\\_dialogue\\_EN.pdf](https://www.inesss.qc.ca/fileadmin/doc/INESSS/Rapports/Biologie_medicale/Lyme_PPE/Lyme_dialogue_EN.pdf)
- Quebec Tool: Follow Up Sheet: Individual bitten by a tick or diagnosed with Lyme disease:  
[https://www.inesss.qc.ca/fileadmin/doc/INESSS/Rapports/Biologie\\_medicale/Lyme\\_Diag-traitement/Lyme\\_Feuille-de-suivi\\_EN.pdf](https://www.inesss.qc.ca/fileadmin/doc/INESSS/Rapports/Biologie_medicale/Lyme_Diag-traitement/Lyme_Feuille-de-suivi_EN.pdf)
- Lyme disease rash images: Lyme disease: erythema migrans tool to support NICE’s guideline on Lyme disease  
<https://www.nice.org.uk/guidance/ng95/resources>
- Infection, Prevention and Control Canada (IPAC) – Lyme Disease  
<https://ipac-canada.org/lyme-disease>

- Public Health Agency of Canada – Lyme Disease  
<https://www.canada.ca/en/public-health/services/diseases/lyme-disease.html>

Guidance for Primary Care and Emergency Medicine Providers in the Management of Lyme Disease in Nova Scotia

[https://novascotia.ca/dhw/cdpc/documents/statement\\_for\\_managing\\_ld.pdf](https://novascotia.ca/dhw/cdpc/documents/statement_for_managing_ld.pdf)

- ETick: A public platform for image-based identification and population monitoring of ticks in Canada  
[www.etick.ca](http://www.etick.ca)

### **Educational Opportunities**

[Lyme disease webinar - YouTube](#)