

# Assessment & Prescribing Algorithm for **ANTIBIOTIC PROPHYLAXIS TO PREVENT LYME DISEASE FOLLOWING A HIGH-RISK TICK BITE**

## **ASSESSING THE PATIENT<sup>1</sup>**

*Is the patient symptomatic following a tick bite?*

- Erythema migrans rash (“bull’s-eye” rash – refer to references for detailed description<sup>2,3</sup>)
- Fever, chills, headache, stiff neck, fatigue, decreased appetite, muscle and joint aches, joint swelling, swollen lymph nodes.

**YES**

Refer to a physician or nurse practitioner.

**NO**

## **IS THE PATIENT AT HIGH RISK FOR DEVELOPING LYME DISEASE?<sup>4</sup>**

*(i.e. must meet **ALL 3** of the following criteria)*

1. Tick has been removed within the past 72 hours.  
(If the tick is still attached, advise the patient to safely remove.<sup>5</sup>)
2. Tick bite occurred in an area where blacklegged ticks have been identified.
  - Refer to the Ontario Lyme Disease Map for estimated risk areas.<sup>6</sup>
3. Tick was likely attached for 36 hours or more

**NO**

If all 3 criteria are not met, do not prescribe antibiotic prophylaxis. Educate patient to monitor for symptoms for 30 days and see a physician or nurse practitioner if symptoms develop.

**YES**

## **PRESCRIBING ANTIBIOTIC PROPHYLAXIS:**

- Adults: doxycycline 200 mg PO x 1 dose
- Children: doxycycline 4 mg/kg (maximum dose of 200 mg) PO x 1 dose (no age restriction)

## **DOCUMENTATION & FOLLOW-UP:**

- Complete documentation & notify physician or nurse practitioner.
- Educate all patients to monitor for signs and symptoms for 30 days and see a physician or nurse practitioner if they develop symptoms.

## **PRESCRIBING CONSIDERATIONS:**

- Doxycycline should be used for post-exposure prophylaxis in adults and children of all ages. Previously, doxycycline was not recommended for children < 8 years of age however this guidance has changed as dental staining is uncommon with short courses.<sup>7,8</sup>
- If doxycycline is contraindicated (e.g. allergy, pregnancy), there are no alternatives. Do not prescribe other antibiotics for post-exposure prophylaxis. Educate patient to monitor for symptoms for 30 days and see a physician or nurse practitioner if symptoms develop.

## **REFERENCES:**

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