Lyme Disease Prophylaxis After Tick Bite

1. Where the tick bite occurred, are ticks likely to be infected with *Borrelia burgdorferi*?
   - Yes
   - No

   When a tick bite occurs in a state or county where Lyme disease is common, ([cdc.gov/lyme/datasurveillance](http://cdc.gov/lyme/datasurveillance)), PEP might be beneficial. If Lyme disease is not common in your area, ask your patient if they have recently traveled to an area where Lyme disease is common.

2. Was the tick removed within the last 72 hours?
   - Yes
   - No

   The Lyme disease incubation period is at least three days, so PEP is most effective within the 72-hour window after tick removal.

3. Was the tick’s body flat, or was it engorged with blood?
   - Flat
   - Engorged

   If the tick is engorged with blood, the risk of Lyme disease is higher, and PEP should be considered. A flat, or unfed tick, is unlikely to have transmitted the pathogen that causes Lyme disease.

4. Was the tick an *Ixodes* (blacklegged) tick?
   - Definitely NOT
   - Yes / Possibly / Tick Unavailable

   In the United States, the only ticks that transmit the bacteria that cause Lyme disease are the small, teardrop-shaped *Ixodes* ticks. Tick identification can be challenging, and PEP can still be considered when the tick cannot be identified.

5. Is doxycycline safe for the patient?
   - Yes
   - No

   A single dose of doxycycline has been shown to reduce the frequency of Lyme disease after a high-risk tick bite and is safe for people of all ages, including young children. Before recommending doxycycline prophylaxis, make sure that it is a safe medication for your patient. Considerations include allergy to doxycycline, pregnancy, and lactation.

   **Consider Prescribing PEP***

   *Single dose of doxycycline (200 mg for adults or 4.4 mg/kg for children of any age weighing less than 45 kg)

   **PEP Not Indicated***

   *Areas with HIGH INCIDENCE of Lyme disease
   *Some local transmission of Lyme disease

REFERENCES: