Alabama Department of Public Health Alabama Emergency Response Technology Health Alert Network (HAN) June 29, 2023

## **Locally Acquired Malaria Cases Identified in the United States**

## Summary

The Centers for Disease Control and Prevention (CDC) has issued a Health Alert Network (HAN) Health Advisory to share information and notify clinicians, public health authorities, and the public about identification of locally acquired malaria cases (*P. vivax*) in two U.S. states (Florida and Texas) within the last two months, concern for a potential rise in imported malaria cases associated with increased international travel in summer 2023, and the need to plan for rapid access to IV artesunate, which is the first-line treatment for severe malaria in the United States.

## **Background**

Locally acquired mosquito-borne malaria has not occurred in the United States since 2003 when eight cases of locally acquired *P. vivax* malaria were identified in Palm Beach County, FL. Despite these cases, the risk of locally acquired malaria remains extremely low in the United States. However, *Anopheles* mosquito vectors, found throughout many regions of the country, are capable of transmitting malaria if they feed on a malaria-infected person. The risk is higher in areas where local climatic conditions allow the *Anopheles* mosquito to survive during most of or the entire year and where travelers from malaria-endemic areas are found. In addition to routinely considering malaria as a cause of febrile illness among patients with a history of international travel to areas where malaria is transmitted, clinicians should consider a malaria diagnosis in any person with a fever of unknown origin regardless of their travel history.

## **Recommendations for Clinicians**

- Consider the diagnosis of malaria in any person with a fever of unknown origin, regardless of
  international travel history, particularly if they have been to the areas with recent locally acquired
  malaria.
- Routinely obtain a travel history and consider malaria in a symptomatic person who traveled to an area with malaria in the weeks to months preceding symptom onset.
- Treatment recommendations for malaria vary by species and severity. Please refer to <u>CDC's Malaria</u> <u>Diagnosis and Treatment Guidelines for U.S. Clinicians</u> for specific detailed instructions.
  - An algorithm for diagnosis and treatment of malaria is available here.
  - Patients suspected of having malaria should be urgently evaluated in a facility, such as an emergency department, able to provide rapid diagnosis and treatment, within 24 hours of presentation.
  - Order microscopic examination of thin and thick blood smears, and a rapid diagnostic test (RDT) if available, to diagnose malaria as soon as possible.
  - If blood smears or RDT are positive and species determination is not available, antimalarial treatment effective against chloroquine-resistant *P. falciparum* must be initiated immediately.
  - Artemether-lumefantrine (Coartem®) is the preferred option, if readily available, for the
    initial treatment of uncomplicated *P. falciparum* or unknown species of malaria acquired in
    areas of chloroquine resistance. Atovaquone-proguanil (Malarone®) is another

- recommended option. *P. vivax* infections acquired from regions other than Papua New Guinea or Indonesia should initially be treated with chloroquine (or hydroxychloroquine).
- IV artesunate is the first-line drug for treatment of severe malaria in the United States. Artesunate for Injection<sup>TM</sup> is approved by the FDA for treating severe malaria and is commercially available. More information on how to acquire IV artesunate in the United States can be found here.
- Species determination is important because P. vivax and P. ovale can remain dormant in the liver and require additional antirelapse treatment; failure to treat the dormant hepatic parasites may result in chronic infection with relapsing episodes. Relapses may occur after months or even years without symptoms.
- After an urgent infectious disease consultation, if there are still questions about diagnosing and treating malaria, CDC malaria clinicians are on call 24/7 to provide advice to healthcare providers, further information can be found <a href="here">here</a>.
- Suspected or confirmed locally acquired malaria is a public health emergency and should be reported immediately to your state, territorial, local, or tribal health department. Imported (or travel-associated malaria) is also reportable in all states through routine reporting methods.
- Discuss travel plans with patients; prescribe a CDC-recommended <u>malaria chemoprophylaxis</u> regimen and discuss <u>mosquito bite prevention</u> for those traveling to an international <u>area with malaria</u>; encourage patients to adhere to the regimen before, during, and after travel. Malaria chemoprophylaxis is not needed domestically at this time.

The full CDC HAN can be viewed here:

https://www.alabamapublichealth.gov/bcd/assets/cdc han malariacasesidentified.pdf