

Update: Locally Acquired Malaria Cases Identified in the United States

DATE:	August 23, 2023
TO:	Health Alert Network
FROM:	Debra L. Bogen, M.D., FAAP, Acting Secretary of Health
SUBJECT:	Update: Locally Acquired Malaria Cases Identified in the United States
DISTRIBUTION:	Statewide
LOCATION:	N/A
STREET ADDRESS:	N/A
COUNTY:	N/A
MUNICIPALITY:	N/A
ZIP CODE:	N/A

This transmission is a “Health Update” provides updated information regarding an incident or situation; unlikely to require immediate action.

HOSPITALS: PLEASE SHARE WITH ALL MEDICAL, PEDIATRIC, NURSING AND LABORATORY STAFF IN YOUR HOSPITAL; **EMS COUNCILS:** PLEASE DISTRIBUTE AS APPROPRIATE; **FQHCs:** PLEASE DISTRIBUTE AS APPROPRIATE **LOCAL HEALTH JURISDICTIONS:** PLEASE DISTRIBUTE AS APPROPRIATE; **PROFESSIONAL ORGANIZATIONS:** PLEASE DISTRIBUTE TO YOUR MEMBERSHIP; **LONG-TERM CARE FACILITIES:** PLEASE SHARE WITH ALL MEDICAL, INFECTION CONTROL, AND NURSING STAFF IN YOUR FACILITY

Summary

- This is an update to [HAN #707 - Locally Acquired Malaria Cases Identified in the United States](#) which was released on June 28, 2023.
- A locally acquired case of *Plasmodium falciparum* malaria was identified in a Maryland resident in the National Capital Region.
- CDC is collaborating with three U.S. state health departments (Florida, Texas and Maryland) with ongoing investigations of [locally acquired mosquito-transmitted *P. vivax* malaria](#) cases.
- There is no evidence to suggest the cases in the three states are related.
- There is a concern for a potential rise in imported malaria cases associated with increased international travel in summer 2023.
- Rapid [diagnosis](#) and [treatment](#) for malaria is critical in prevent severe disease and possibly death.
- If you have any questions, please call DOH at 1-877-PA-HEALTH (1-877-724-3258) or your local health department.

Background

In June 2023, a locally acquired case of *Plasmodium falciparum* malaria was identified in a Maryland resident in the National Capital Region. As of Tuesday, August 22, there have been [9 cases of locally acquired malaria](#) from three states (Florida [7], Texas [1], Maryland [1]). All these cases were identified as *P. vivax*. Cases of locally acquired malaria in the U.S. are rare but do occur and providers need to be aware of the potential for locally acquired malaria when encountering patients with symptoms consistent with malaria but who have no international travel history.

Malaria is more common in Pennsylvania than perhaps many healthcare providers realize. Each year, approximately 50 cases of malaria are identified in Pennsylvania among individuals with recent travel to [malaria-endemic countries](#). In addition, the *Anopheles* species of mosquito that transmits malaria is present across the U.S., including Pennsylvania. Thus, there is a risk that local spread can occur when a person with malaria acquired outside of the country is bitten by an *Anopheles* mosquito that goes on to bite another person in Pennsylvania.

Malaria is a medical emergency, and prompt diagnosis and treatment are critical. Therefore, providers should have a high index of suspicion for new malaria cases, especially among individuals with recent travel to [malaria-endemic areas](#) and in individuals with no travel history, but who have a fever of unknown origin or other signs or symptoms consistent with malaria.

Recommendations for Clinicians

- Consider the [diagnosis](#) of malaria.
 - Consider the diagnosis of malaria in any person with a fever of unknown origin or other signs or symptoms of malaria, particularly those with a history of travel to a [malaria-endemic country](#).
 - Clinical manifestations of malaria can include fever, chills, headache, myalgias, fatigue, nausea, vomiting, and diarrhea.
 - Symptoms typically begin 10 days to 4 weeks after infection, although a person may feel ill as early as 7 days or as late as 1 year after infection.
 - 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.
 - Malaria is a medical emergency. 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. If not diagnosed and treated promptly, malaria may progress to severe disease, in which mental status changes, seizures, renal failure, acute respiratory distress syndrome, coma, and even death may occur.

- [Laboratory diagnosis](#) of malaria.
 - There are two types of laboratory tests for malaria.
 - Microscopic smear:
 - Order microscopic examination of thin and thick blood smears.
 - Rapid Diagnostic Test (RDT)
 - “BinaxNOW™,” a malaria RDT, is approved for use in the United States. RDTs are less sensitive than microscopy and cannot confirm each specific species of the malaria parasite or the parasite density. Therefore, microscopy should also be obtained in conjunction with an RDT.
 - Treatment recommendations for malaria vary by species and severity. Species determination is important because *P. vivax* and *P. ovale* can remain dormant in the liver and require additional anti-relapse 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.

- [Treatment](#) for malaria
 - 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 InjectionTM 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](#).
 - Please refer to [CDC's Malaria Diagnosis and Treatment Guidelines for U.S. Clinicians](#) for specific detailed instructions. An algorithm for diagnosis and treatment of malaria is also available [here](#).
- **Providers should ensure reporting to public health.**
 - **Suspected or confirmed locally acquired malaria is a public health emergency and should be reported immediately to your local health department or to the Pennsylvania Department of Health at 1-877-PA HEALTH.**

For additional questions, please call your local health department or DOH at 1-877-PA HEALTH.

For more information:

[CDC's informational website on malaria](#)

[PA HAN 707](#)

[PA DOH Malaria fact Sheet](#)

[CDC information on locally acquired malaria](#)

Individuals interested in receiving PA-HANs are encouraged to register at [HAN Notification Registration \(mir3.com\)](#)

Categories of Health Alert messages:

Health Alert: conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: provides important information for a specific incident or situation; may not require immediate action.

Health Update: provides updated information regarding an incident or situation; unlikely to require immediate action.

This information is current as of August 23, 2023 but may be modified in the future. We will continue to post updated information regarding the most common questions about this subject.