



STATE OF HAWAII
DEPARTMENT OF HEALTH
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In reply, please refer to:
File:

October 30, 2023

MEDICAL ADVISORY: MALARIA

- There have been nine cases of locally acquired malaria diagnosed in the U.S. in 2023.
- Prompt diagnosis and treatment of malaria are critical.
- Report suspected and confirmed malaria cases to the Hawaii Department of Health.

Dear Healthcare Provider:

For the first time since 2003 there have been multiple cases of locally acquired malaria in the U.S. mainland. There have been seven cases of locally acquired *Plasmodium vivax* (*P. vivax*) malaria in Sarasota County, Florida, one case of *P. vivax* in Cameron County, Texas, and one case of *Plasmodium falciparum* (*P. falciparum*) malaria in the National Capital Region of Maryland. There is no evidence to suggest that the cases are related, and they do not raise the risk of local transmission in Hawaii or other areas outside of the reported counties.

[Malaria](#) is transmitted through the bite of an infective female *Anopheles* species of mosquito. Malaria is caused by any of five species of protozoan parasite of the genus *Plasmodium*: *P. falciparum*, *P. vivax*, *Plasmodium malariae* (*P. malariae*), *Plasmodium ovale* (*P. ovale*), or *Plasmodium knowlesi* (*P. knowlesi*). Worldwide, more than 240 million cases of malaria occur each year (95% in Africa). The *Anopheles* species of mosquitoes is not known to be present in Hawaii but are found in many places throughout the world, including parts of the U.S. mainland.

Since 2017, there have been 15 cases of malaria in Hawaii residents, all travel-related, including three cases so far this year.

Recommendations for Clinicians:

- **Consider the diagnosis of malaria.**
 - Malaria is a medical emergency given the potential for serious and fatal outcomes, prompt diagnosis and treatment are critical. Consider the diagnosis of malaria in any person with a fever of unknown origin or other signs or symptoms of malaria, especially those with travel to [a malaria-endemic country](#) or travel to

Cameron County, Texas; Sarasota County, Florida; or the National Capitol Region of Maryland.

- 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.
- Symptoms of malaria may include fever, chills, headache, myalgias, and fatigue. Nausea, vomiting, and diarrhea may also occur. For most people, symptoms begin ten days to four weeks after infection, although a person may feel ill as early as seven days or as late as one year after infection.
- **Diagnose and treat malaria promptly.**
 - 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.
 - 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.
 - Order microscopic examination of thin and thick blood smears, and a rapid diagnostic test (RDT) if available, to diagnose malaria as soon as possible.
 - “BinaxNOW™,” a malaria rapid diagnostic test (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 as soon as possible.
 - Additionally, parasite nucleic acid detection using polymerase chain reaction (PCR) is a very useful tool for confirmation of species and detection of mutations associated with drug resistance. The Hawaii Department of Health (DOH) can also help facilitate PCR testing if needed. Pre-treatment whole blood sample ethylenediaminetetraacetic acid (EDTA) should be held for this purpose.
 - Treatment recommendations for malaria vary by species and severity. 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](#).
- **Help prevent malaria.**
 - Discuss travel plans with patients; prescribe a CDC-recommended [malaria chemoprophylaxis regimen](#) and discuss mosquito bite prevention for those traveling to an [international area with malaria](#). Encourage patients to adhere to the regimen before, during, and after travel. Malaria chemoprophylaxis is not needed domestically at this time.
 - Avoiding mosquito bites is the best practice to prevent mosquito-borne illnesses when traveling to these areas. Educate patients that [mosquito bite prevention](#) includes wearing light colored, long sleeved tops and long pants, using insect

repellent, keeping windows or doors closed or covered with screens to keep mosquitos out of your living quarters.

- Advise travelers to areas with malaria transmission, to seek medical attention should symptoms of malaria develop after return.
- Encourage patients to prevent standing water from collecting around the home and workplace to prevent breeding of mosquitos and reduce the risk of mosquito borne illnesses generally.
- **Report malaria cases to the Hawaii DOH.**
 - Malaria is a routinely reportable disease in the state of Hawaii. Cases should be reported to the Disease Investigation Branch on Oahu or to the appropriate District Health Offices listed below. Timely reporting allows for quick assessment by the DOH [Disease Investigation Branch](#) and the [Vector Control Branch](#).

Report probable or confirmed cases of malaria to the Disease Outbreak Control Division.

Oahu (Disease Reporting Line)(808) 586-4586
Maui District Health Office(808) 984-8213
Kauai District Health Office(808) 241-3563
Hawaii District Health Office (Hilo)(808) 933-0912
Hawaii District Health Office (Kona)(808) 322-4877
After hours on Oahu(808) 600-3625
After hours on neighbor islands(800) 360-2575 (toll free)

If you have any additional questions, please contact Hawaii DOH. We appreciate your assistance in protecting the health of Hawaii’s residents and visitors.

Sincerely,



Sarah K. Kemble, MD
State Epidemiologist