



Summary

Oropouche virus disease, also known as Oropouche fever, is caused by the Oropouche virus, which is endemic to the Amazon basin and is considered an emerging arthropod-borne virus in the Americas. The virus is spread to humans through the bites of infected biting midges and some mosquitoes. People who become infected typically have symptoms including sudden onset of fever, severe headache, fatigue, muscle aches, and stiff joints, although some infected persons may not show symptoms and others can progress to severe disease. Currently, the primary method of protecting against Oropouche virus in areas where the virus is endemic or circulating, is preventing midge and mosquito bites. Travelers to affected areas should take extra precautions to prevent bites, such as wearing protective clothing. Pregnant persons should consult their healthcare provider to discuss their risks before travel to certain parts of the Americas, as vertical transmission associated with adverse pregnancy outcomes have been documented. No specific treatment or vaccine currently exists for Oropouche virus. The management of acute Oropouche virus disease is supportive and includes rest, hydration, pain relief as needed, and potential hospitalization for severe symptoms.

Background

Oropouche virus, an emerging arthropod-borne virus in the Americas, is a member of the Simbu serogroup within the *Orthobunyavirus* genus. Sloths, wild birds, rodents, and other non-human primates are known to be reservoirs for Oropouche virus. The virus is transmitted through vectors such as biting midges and certain types of mosquitoes.¹ Humans can become infected with the virus if they are bitten by an infected vector and can serve as amplifying hosts in urban areas, with biting midges and some mosquitoes facilitating transmission among people.¹

Oropouche virus is endemic to the Amazon basin and was first detected in a Trinidad and Tobago village near the Oropouche River in 1955.² Before 2000, several outbreaks of Oropouche virus were reported in Brazil, Panama, and Peru, and since then, cases have been reported in many countries in the Americas region. But since December 2023, South America has reported large outbreaks of the disease, including in new areas. Cuba reported its first confirmed case in Jun 2024.^{1,2} The current outbreak has resulted in multiple travel-associated cases in the US and Europe, with all of those cases linked to travel to either Cuba or Brazil.¹

Cases of Oropouche virus disease can be either symptomatic or asymptomatic. Many infections are either asymptomatic or misdiagnosed, as symptoms are similar to other diseases, such as dengue, chikungunya, Zika, and malaria. Most individuals will present with a mild illness.³ Typically, symptoms include the sudden onset of fever, often severe headache, chills, muscle aches, and stiff joints. Other less common symptoms can include sensitivity to light, dizziness, eye pain or swelling, diarrhea, abdominal pain, nausea/vomiting, and rash. While rare, some patients may have severe



complications involving the neurological system, such as meningitis, or hemorrhagic symptoms, such as nose and gum bleeding.² Most cases resolve within 1–2 weeks without intervention.³

The disease is rarely fatal, although deaths do occur. Recently, health officials have raised concerns about cases of infected pregnant persons passing the virus to their fetus, known as vertical transmission, which is associated with poor pregnancy outcomes, including fetal death and congenital defects.^{1,4,5,6} While there is limited information available about the risk factors that may contribute to severe disease, individuals who are at higher risk for severe disease from other vector-borne diseases—including pregnant people, people aged 65 years or older, and people with existing medical conditions such as immune suppression, hypertension, diabetes, or cardiovascular disease—likely would have similarly elevated risks for Oropouche virus.³

Human Infection Prevention and Control

Residents in and travelers to [endemic regions and countries with recent or ongoing outbreaks](#) are at risk for Oropouche virus infection.^{1,5} Targeted health education efforts for at-risk groups is a core strategy in preventing Oropouche virus transmission to humans. This approach should include ongoing messaging about risk-reduction behaviors—including avoiding travel to areas experiencing an Oropouche virus outbreak and using personal protective measures when traveling in areas with actively circulating virus (see below)—and more intensive messaging during periods of active transmission.³ For example, the Centers for Disease Control and Prevention (CDC) currently recommends pregnant individuals postpone non-essential travel to Cuba or strictly follow prevention recommendations if travel is necessary.⁷

The primary strategy for individuals to reduce the risk of Oropouche virus disease is to minimize exposure to biting midges and mosquitoes.⁸ This includes wearing protective clothing, using [EPA-registered insect repellents](#), and remaining indoors in places that use air conditioning. These protective measures should be employed during travel and for 3 weeks after returning home, especially for individuals with symptoms, to prevent biting midges or mosquitoes in areas where they are active from spreading the disease to others. Individuals with a travel history to affected countries or territories and who are experiencing symptoms should contact their healthcare provider for further evaluation.³ CDC provides more [information on risk-reduction behaviors](#).

Healthcare and laboratory workers who are exposed to blood, other body fluids, or cultures from infected individuals may be at risk of infection and should follow standard precautions and protocols to minimize their exposure.^{1,2,9} The virus has been found in semen, but it is not known whether the virus can be spread through sex. No cases of sexual transmission of Oropouche virus have been reported.⁹

To date, no local transmission has been reported in the US or its territories.^{1,2} To mitigate the risk of local transmission, CDC recommends that all suspected cases be reported to state, tribal, local, or



territorial health departments for timely confirmatory testing.^{1,3} While Oropouche is not a nationally notifiable condition, health departments are encouraged to report confirmed and probable Oropouche virus infections to CDC via ArboNET (the national surveillance system for arthropod-borne viruses).^{3,10,11}

Laboratory Testing and Diagnosis

Oropouche virus disease should be considered in persons with travel history to endemic regions or areas with active viral circulation within 2 weeks of initial symptom onset.³ Guidance for clinical case identification may change as the epidemiological situation evolves, particularly if local transmission is confirmed in the US or its territories.^{1,11} For suspected Oropouche cases, the current protocol is to first rule out other potential viruses through diagnostic testing before sending the sample for specific testing.³ At this time, there is severely limited testing capacity for Oropouche virus within the US. Diagnostic testing is currently only available at CDC and the New York State Department of Health Wadsworth Center.^{1,3}

Treatment

There are no specific treatments, vaccines, or antiviral therapies for Oropouche disease.² Rest, fluids, over-the-counter medications such as acetaminophen for fever and pain, and anti-nausea medications can help manage acute symptoms until resolution.^{2,8} Aspirin and other NSAIDs should be avoided to reduce the risk of bleeding.^{3,12} Individuals with severe symptoms may require hospitalization and/or additional medical care, and pregnant people who have tested positive for Oropouche virus should be monitored during pregnancy and their infants should be carefully evaluated.^{3,5,8}

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