



20 September 2023

Situation Summary

The Health Secretary of the State of Tocantins confirmed on 10 May 2023, the first case of West Nile virus disease in a resident of Caseara municipality, Tocantins State, Brazil. The case is a 16-year-old male with onset of symptoms on 1 April 2023; he resides in a rural area of the municipality of Caseara, Tocantins. The patient presented with acute viral encephalitis as well as symptoms of fever, headache, seizure, and odynophagia. The case has been discharged with severe sequelae. Serum and cerebrospinal fluid (SCF) samples were collected and tested by the Evandro Chagas Institute. The RT-PCR analysis of the collected SCF was positive for West Nile fever (WNF).¹

During the epidemiological investigation carried out, a suspected case was identified. An 11-year-old boy, relative of the confirmed case, with onset of symptoms on 3 April 2023. The patient presented with acute viral encephalitis, with symptoms of fever, headache, somnolence, and decreased level of consciousness. On April, serum and SCF samples were collected and processed by the Evandro Chagas Institute. A SCF IgM test was conducted with a non-reactive result for WNF. However, this result does not rule out infection with the virus. The case has been discharged with signs of improvement and severe sequelae. Final classification for this case is pending. Additional samples were collected for laboratory analysis at the time of patient discharge and results are pending.

During the initial investigation, samples were taken from relatives (parents and siblings) for serology testing at Evandro Chagas Institute with an undetectable result for West Nile virus.

The Brazil Ministry of Health along with the state health authorities of Tocantins, has carried out an intense epidemiological investigation activity to detect case in humans, animals as well study vectors. During the retro-prospective search for cases, five suspected cases were identified, of which three have been ruled out and two remain under investigation.

During the epidemiological investigation, surveys and samples were collected among the population and animals around the area of the outbreak. A total of 145 human samples and 255 animal samples (poultry, horses, canines, and pigs) were collected and sent to the Evandro Chagas Institute for testing. As of today, 90 samples collected from 71 individuals tested negative for West Nile fever virus.

This epidemiological investigation is ongoing aimed to identify potential hosts/reservoirs and vectors in the outbreak.

¹ Secretary of Health of the State of Tocantins. Press Release: Tocantins registers or first case of Nile Fever and SES-TO presents control and monitoring actions. Available in Spanish from: <https://goo.by/35twW>

Public Health Response

The first human case in Brazil was reported in 2014, in the state of Piauí; since then and to date, 13 cases of West Nile virus disease have been confirmed in 2 States of Brazil (Piauí, Tocantins).

Taking into account that WNV disease is considered an emerging disease in Brazil, the Ministry of Health, the Ministry of Agriculture, and the federal health authorities are working together to conduct the epidemiological investigation to obtain information on the dynamics of transmission of the virus, as well as take appropriate prevention and control measures.

Note from the Pan American Health Organization / World Health Organization (PAHO/WHO):

PAHO/WHO is following up on this event along with the Brazilian health authorities.

This briefing note is shared to maintain Member States informed. PAHO/WHO encourage Member States to take prevention measures as necessary, base on the epidemiological context and risk assessment for each country.