



WEST NILE VIRUS WITHIN LOS ANGELES COUNTY: FIRST AUTOCHTHONOUS HUMAN WEST NILE VIRUS INFECTION IN 2003

Since the introduction of West Nile virus (WNV) in the continental US in summer of 1999, WNV has become established in nearly all of the contiguous states causing nearly 10,000 cases and 262 deaths in 2003.

In 2002, the first locally acquired human case of WNV in California was identified in Los Angeles County (LAC). However, other forms of local WNV surveillance including dead birds, sentinel chickens, and mosquito pools did not reveal evidence of WNV. In 2003, one case of WNV fever acquired within LAC was documented and laboratory-confirmed.

The first case of locally acquired WNV fever in a LAC resident was laboratory-confirmed in late December 2003 by the California Department of Health Services Viral and Rickettsial Diseases Laboratory (VRDL). ACDC was notified by ARUP Laboratory of Utah of a positive WNV serum IgM test in late October 2003 in a LAC resident. The patient and his physician were contacted and interviewed by ACDC, and the patient provided another serum specimen in early December 2003 so that confirmatory testing could be completed at the LAC Public Health Laboratory.

The case, a 61 year-old Hispanic male, was admitted to an LAC hospital for complaints of fever, fatigue, nausea and diarrhea for 10 days in mid-October 2003. Serum WNV testing was ordered by the attending physician as part of a fever work-up during his hospital admission. The patient recovered uneventfully. He lived in Whittier and gave a history of mosquito bites two days prior to admission while sleeping in his living room with a broken screen door. He believes he was bitten in the early morning of the first week of October. He denied any travel outside of Whittier area 14 days before onset of symptoms. He received no blood products or organ donations within the month prior to symptom onset. In early December, the patient's serum tested weakly positive by CDC WNV ELISA testing in both the LAC Public Health Laboratory and the state VRDL. WNV confirmatory testing, plaque reduction neutralization test, performed at the VRDL confirmed the diagnosis of WNV fever in late December 2003.

Related environmental findings in the fall of 2003 include: 11 dead crows with WNV recovered in Whittier and 6 WNV-infected mosquito pools in two adjoining cities in late September to November 2003. In 2003, there were no sentinel chickens with WNV-positive blood tests from LAC. This is the third endemic case of WNV infection acquired in the state of California in 2003 with the first two human cases being reported from Imperial and San Bernardino counties respectively.