



West Nile Virus (WNV)

West Nile virus (WNV) is a mosquito-borne flavivirus, which was first identified in the West Nile region of Uganda in 1937. More recently (since the mid-1990s) the virus has spread to become an endemic pathogen in Europe and North America as well as Africa and the Middle-East, causing sporadic outbreaks in humans, horses and birds. The main route of WNV transmission is via mosquitoes. Birds are the most commonly infected host and are the main reservoir of infection.

The majority of WNV infections in humans are sub clinical and asymptomatic, however, WNV may cause a flu-like condition termed West Nile fever. The incubation period is typically between 2 and 15 days and symptoms may include fever, headaches, muscle pain, fatigue, nausea, vomiting, anorexia, myalgia and rash. In up to 1% of cases neurological symptoms including meningitis, encephalitis, meningoencephalitis and myelitis may occur. Occasional cases of West Nile encephalitis have been linked to infected blood transfusions and organ donations.

Since reporting began in 2002 there have been only two cases of WNV in the UK (both associated with recent travel to Canada) and there have been no reported cases where the patient had not travelled abroad. However, WNV appears to be expanding its geographical range across Europe, causing increasing numbers of epidemics/outbreaks associated with human morbidity and mortality. The continuing spread of WNV, combined with the lack of specific therapeutics or vaccines to combat or prevent infection, imparts a pressing need to identify WNV infection.

To meet this need, Micropathology Ltd offers a high sensitivity reverse transcriptase RT-PCR assay to detect this emerging and increasingly important pathogen. The LLoD of the assay is 258 copies/mL. Samples should be collected as soon as possible after potential infection events by mosquito bites to maximise the chances of detection of viral RNA.