

Supporting Information

Supplementary material

This appendix was part of the submitted manuscript and has been peer reviewed. It is posted as supplied by the authors.

Appendix to: Gibson E, Whitley M, Murray P, et al. West Nile virus Kunjin subtype in rural NSW. *Med J Aust* 2025; doi: 10.5694/mja2.70103.

Interview

A case interview was conducted by the Hunter New England Public Health Unit zoonotic epidemiologist to determine likely source of acquisition. The patient reported ongoing symptoms of fatigue and memory loss, with little recollection of events since his symptom onset on 11 January 2025. Given this, he provided as much information as his recall permitted and requested that his wife be interviewed to provide a complete history. The patient's wife was interviewed on 24 February 2025 and confirmed the ongoing impact of this illness on the patient, including impairment of his activities of daily living. The patient's wife provided a travel history within the incubation period. Despite most of this time being spent on their property, the patient travelled to Sydney in late December and returned via the Central Coast region. The patient had also travelled to Moree shortly before the incubation period. The patient's occupation includes travel to areas considered high risk for mosquito-borne diseases in northern NSW and he reported undertaking outdoor work where he tends not to use personal protection (including long-sleeved clothing nor insect repellent). While the patient's wife could not recall specific instances of mosquito bites (noting that the patient does not experience local reactions), there are mosquitoes on their property. Mosquito numbers were noted to increase when a creek on the property was full, which it was not at the time of interview. The patient also reported feral pigs on the property, noting that he had shot and killed one over the Christmas period, but had no contact with the carcass. There were no reports of unwell animals on the property. The patient's wife confirmed that the patient had never been vaccinated against Japanese encephalitis virus and had not previously travelled to Japanese encephalitis virus endemic

Following the interview, it was clear that West Nile virus Kunjin subtype acquisition had occurred in NSW, but the precise location remains uncertain. From a clinical perspective, it was suggested that follow-up by a neurologist might be indicated given the persistent nature of the patient's fatigue and memory loss.