

Encephalitic flavivirus risk (JEV, MVEV, KUNV) and JEV vaccination eligibility update



SAFETY INFORMATION 017/25

Issue date:	3 December 2025
Replaces:	SI: 009/24
Content reviewed by:	Health Protection NSW
Distributed to:	Chief Executives; Directors of Clinical Governance; Director, Regulation and Compliance Unit
KEY MESSAGE:	<p>There is an ongoing risk of mosquito borne viruses that cause encephalitis west of the Great Dividing Range and in northern NSW. Kunjin virus (KUNV) has been detected in a sentinel chicken in western NSW and Japanese encephalitis virus (JEV) has been detected in mosquitoes in the Horsham Rural City Council of Victoria in November 2025.</p> <p>Clinicians should be alert to JEV, Murray Valley encephalitis virus (MVEV) and KUNV infection in patients presenting with fever, headache, confusion, disorientation, or seizures, especially in patients who live in or spend time <u>in Local Government Areas (LGAs) of higher JEV concern</u>.</p> <p>JEV vaccination is strongly recommended for those living or working in <u>designated LGAs</u> of higher risk within HNELHD, NNSWLHD, WNSWLHD, FWLHD, SNSW and MLHD or in high-risk occupations. The <u>JEV vaccine eligibility criteria</u> were expanded in 2025 to cover 60 LGAs. Staff and family members living in these areas should consider JEV vaccination.</p>
ACTION REQUIRED BY:	Clinicians
REQUIRED ACTION:	<ol style="list-style-type: none"> 1. Distribute this Safety Information to all relevant clinicians and clinical departments for awareness. 2. Offer <u>JEV vaccination</u> opportunistically to all eligible individuals and staff, and/or encourage vaccination to patients on discharge.
We recommend you also inform:	<p>Directors, Managers and Staff of:</p> <ul style="list-style-type: none"> • Medical Services • Nursing/Midwifery Services • Pharmacy Services • Laboratory services <p>All other relevant staff, departments and committees.</p>
Website:	https://www.health.nsw.gov.au/sabs/Pages/default.aspx http://internal.health.nsw.gov.au/quality/sabs/index.html
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What is updated in this Safety Information from SI:009/24?

This Safety Information replaces Safety Information SI:009/24 *Risk for Japanese Encephalitis Virus (JEV) following detection in mosquitoes*.

The JEV vaccine eligibility criteria were expanded in 2025 with additional LGAs in Northern NSW and Hunter New England Local Health Districts now considered areas of high concern.

Some patients and staff who have been vaccinated may be recommended to receive a booster dose and should be advised to discuss with their primary care provider.

While patients who do not live or work in these higher risk LGAs may not be eligible for the free vaccine, people travelling to these areas or JEV should discuss with their primary care provider whether they should be vaccinated, with vaccine available for purchase on the private market.

Situation

There is an increased risk of JEV and other mosquito borne viruses west of the Great Dividing Range and in Northern NSW. This year's rainfall and forecasts for above average temperatures this summer is expected to lead to high levels of mosquito activity.

JEV has been detected in mosquitoes in the Victorian Horsham Rural City Council area and Kunjin virus has been detected in a chicken flock in Cowra in November 2025. These detections are an early signal of mosquito virus risk. The risk is expected to rise throughout the summer, peaking over the summer holiday period, and remaining high until the cooler weather arrives around mid-March 2026.

Background

JEV, MVE and Kunjin are flaviviruses that are transmitted through the bite of infected mosquitoes and can cause rare but potentially fatal encephalitis. JEV infects humans and animals, with pigs serving as amplifying hosts. While most human infections are asymptomatic, severe cases can cause encephalitis.

In early 2022, locally acquired JEV was detected for the first time in NSW. Since then, 19 human cases of JEV have been likely acquired in NSW, of whom 4 have died.

Assessment

Climatic conditions with wet and hot weather forecasted this year may lead to increased mosquito risk in coming months. As peak mosquito activity approaches, it is an important time to promote JEV vaccination to eligible individuals and mosquito bite prevention.

A safe and effective vaccine is available for people aged 2 months and over. Clinicians should consider opportunities to recommend vaccination for all eligible patients including patients who are pregnant, breastfeeding and / or immunocompromised.

Consider JEV, MVE and Kunjin infection in patients presenting with fever, headache, confusion, disorientation, or seizures, especially in patients who live in or spend time in LGAs of higher concern.

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Clinical Recommendations

- Recommend JEV vaccination based on updated [JEV vaccine eligibility](#).
- Encourage prevention where practicable by advising on mosquito bite prevention.
- Remain aware of JEV and other mosquito borne diseases, particularly in [local government areas \(LGAs\) of higher JEV concern](#).
- Consider JEV, MVEV and/or Kunjin in cases of unexplained encephalitis/meningitis.
- Discuss any suspected cases with your local Infectious Disease physician. Contact the Clinical Microbiologist on call through the Westmead Hospital switchboard (02 8890 5555) for further specialist advice.
- A clinically compatible case with a concern for acute JEV, MVEV or KUNV requires a blood and urine test and if appropriate, cerebrospinal fluid (CSF), for further investigation. To help interpretation of testing results, it is essential to provide relevant information including dates and location where infection is suspected to have been acquired, recent or previous travel or residence in areas where flaviviruses are endemic, and vaccination history against JEV. Collect –
 - **Blood:**
 1. Serum (serum separator tube) – (2-5 mL from children, 5-8 mL from adults) for acute and convalescent (3-4 weeks post onset) serology testing for Flavivirus group, JEV/MVEV/KUNV IgM, IgG and total antibody (TA_b)
 2. Whole blood (EDTA tube) – (1-2 mL from children, 4-6 mL from adults) for JEV/MVEV/KUNV PCR on an acute sample.
 - **Urine:** (2-5 mL in a sterile urine jar) for JEV/MVEV/KUNV PCR.
 - **CSF:** Flavivirus and JEV/MVEV/KUNV IgM, JEV/MVEV/KUNV PCR.
- Encourage eligible staff to get vaccinated.

Further information

[Japanese encephalitis - Information for health professionals](#)

[Japanese encephalitis virus \(JEV\) vaccination](#)

[Australian Immunisation Handbook – Japanese encephalitis](#)