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**Distributed to:**

Chief Executives  
Directors of Clinical Governance  
Director, Regulation and Compliance Unit

**Action required by:**

Chief Executives  
Directors of Clinical Governance

**We recommend you also inform:**

Directors, Managers and Staff of:

- Emergency Departments
- Intensive Care
- Neurology
- Infectious Diseases
- Paediatrics
- General Medicine
- Public Health
- Nursing

**Expert Reference Group**

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## Risk forecast for encephalitic flaviviruses (JEV, MVEV, KUNV) and JEV vaccination eligibility update

### Situation

This Safety Information is an update of SA:003/23 *Encephalitic Flaviviruses (MVEV, KUNV and JEV) – Update for Clinicians* (now **rescinded**). It provides an update on the lower forecast risk of encephalitic flavivirus infections this mosquito season (2023/2024) and expansion of local government areas (LGAs) included in the Japanese encephalitis virus vaccine eligibility.

### Background

Flaviviruses are a type of arbovirus. Some flaviviruses including Japanese Encephalitis Virus (JEV), Murray Valley Encephalitis Virus (MVEV) and Kunjin Virus (KUNV) (a type of West Nile Virus) are a rare but potentially fatal cause of viral encephalitis.

In early 2022, JEV was found for the first time in NSW. During the 2021/22 mosquito season, there were 13 cases of JEV in people in NSW.

During the 2022/23 mosquito season, there was a high number of detections of MVEV in mosquitoes and sentinel chickens in regional NSW with one case of JEV and four cases of MVEV acquired in NSW.

NSW Health continually reviews the evidence related to JEV risk in NSW in consultation with a range of health and environmental experts. JEV vaccines have been available free of charge for people based on some occupational criteria (as determined by the Communicable Disease Network of Australia) and based on where they live and/or work in NSW since 2022. Retrospective testing and modelling have demonstrated that an additional 14 LGAs in NSW may be capable of sustaining the main vector for flaviviruses (*Culex* species mosquito) as well as have other ecological risk factors supporting potential JEV transmission. Supply of the vaccine has also improved in NSW, creating an opportunity to expand the vaccine to those at greatest risk.

### Assessment

The forecast is a dry and hot summer. This generally means lower mosquito numbers inland, and therefore lower risk of flaviviruses such as JEV. However, there remains limited evidence on how JEV behaves in Australia during different environmental conditions.

NSW recommends people continue to avoid mosquito bites this summer: spray up (use repellent), cover up (wear long-sleeved shirts and long pants), screen up (cover windows and doors with insect screens) and clean up (remove any containers that hold water where mosquitoes may breed). Further information is available on the: [NSW Health mosquito-borne disease resources webpage](#).

### Clinical Recommendations

#### Clinical Escalation

Discuss any suspected cases of infection with encephalitic flaviviruses with your local Infectious Disease service. Infectious Disease services can seek further specialist advice by contacting the Clinical Microbiologist on call at NSWHP-ICPMR through the Westmead Hospital Switchboard – **(02) 8890 5555**.



## Encourage prevention where practicable:

### 1. Preventing mosquito bites

This includes the use of mosquito repellents, flyscreens, bed-nets, vapour dispensing units (indoors) and mosquito coils (outdoors), wearing long, loose or permethrin impregnated clothing and removing any water-holding containers where mosquitoes may breed. Preventing mosquito bites also helps prevent against other mosquito-borne illnesses.

### 2. Vaccination for Japanese encephalitis virus

There is no vaccination for MVEV or KUNV. There are two JEV vaccines registered for use in Australia: Imojev<sup>®</sup> a live attenuated vaccine (single dose) for people 9 months and older, and JEspect<sup>®</sup> an inactivated vaccine (two doses) for those who are unable to receive live vaccines (immunocompromised or pregnant) or aged between two to nine months of age. For more full eligibility criteria and further information, visit: [Japanese encephalitis vaccination](#).

## Required actions for the Local Health Districts/Networks

1. Distribute this Safety Information to all relevant clinicians and clinical departments for awareness.
2. For primary care services, offer JEV vaccination to eligible patients. Vaccination can be given by primary care providers, Authorised Nurse Immunisers and pharmacists (see: [JEV Vaccination](#)). Vaccination can be facilitated by local public health units.