

# Japanese Encephalitis and Vaccination Update

GENERAL PRACTITIONERS and  
ABORIGINAL MEDICAL SERVICES



Please distribute to all doctors and staff in your practice

1. **Be alert** to Japanese Encephalitis virus (JEV) infection as a possible diagnosis in patients presenting with symptoms such as fever, headache, or new neurological signs. See: [https://www.health.nsw.gov.au/Infectious/factsheets/Pages/japanese\\_encephalitis.aspx](https://www.health.nsw.gov.au/Infectious/factsheets/Pages/japanese_encephalitis.aspx)
2. **Offer** JE vaccine to patients recommended vaccination. **Eligible groups have been updated and maximum order limits have increased.** For eligibility criteria see below or visit: <https://www.health.nsw.gov.au/JEvaccine>
3. **Advise** all patients on the importance of regular and routine mosquito bite prevention to help prevent JE and other mosquito-borne diseases, including Murray Valley Encephalitis, Kunjin, Ross River virus and Barmah Forest virus infections.

## What is Japanese Encephalitis Virus (JEV)?

- Japanese Encephalitis Virus (JEV) is a rare but potentially fatal cause of viral encephalitis.
- It is spread by mosquitos. There is no evidence for human-to-human transmission.

## Where is JEV in NSW?

- Until this year, there was minimal risk of JE infection in Australia outside of the Torres Strait.
- In early 2022 JEV was found in people, pigs, animals, and mosquitos in NSW, Queensland, Victoria, and South Australia.
- 13 people in NSW developed severe infections and 2 died.
- A recent serosurvey in NSW found that about 1 in 11 people surveyed in 5 towns in western NSW had antibodies to JEV.
- People at highest risk of infection are those who work at or reside on piggeries, handle mosquitos, or spend time outdoors in rural and regional parts of NSW.

## What are the symptoms of JEV?

- The incubation period ranges from 5-15 days. Less than 1% of people infected with JEV experience clinical disease.
- Patients may develop fever, headache, myalgia, rash and diarrhoea. More severe infection is associated with acute encephalitis/meningoencephalitis. Neurological sequelae include focal deficits such as paresis, cranial nerve pathology and movement disorders. Seizures are common, particularly in children.
- Patients often need to be admitted to hospital, and sometimes require high dependency or intensive care. Permanent neurological or psychiatric sequelae can occur in 30-50% of cases with encephalitis, the case fatality rate is 30%.

## How is JE diagnosed and managed?

- Diagnosis may require a lumbar puncture, CT Brain or MRI scan, and JEV specific testing on blood or CSF. Supportive care. There is no specific antiviral therapy available for JEV.
- Please consider other causes of these symptoms in your diagnosis and management.

## How is JE prevented?

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 mosquitos may breed.
2. **Vaccination.** There are 2 JEV vaccines registered for use: Imojev a live attenuated vaccine (single dose) and JEspect an inactivated vaccine, preferred in those who are immunocompromised, pregnant or <9 months of age (2 doses).

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**Health**

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## Japanese Encephalitis Vaccination

In NSW, free JE vaccine is now recommended for people who:

- Live or work in any of the following Local Government Areas (LGAs): Albury, Balranald, Berrigan, Carrathool, Dubbo Regional, Edward River, Federation, Goulburn Mulwaree, Greater Hume, Griffith, **Hay Shire (NEW)**, Lockhart, Murray River, **Murrumbidgee (NEW)**, Temora, or Wentworth **and**
  - Are aged 50 years or older **and**
  - Spend significant time outdoors (four hours per day).
- People who live or routinely work in any of the above listed LGAs who:
  - are engaged in the recovery efforts (clean up) of stagnant waters following floods
  - OR
  - are living/sleeping in conditions that place them at increased risk of exposure to mosquitoes
- People who work at, reside at, or have a planned non-deferable visit to a:
  - piggery, including but not limited to farm workers and their families (including children aged 2 months and older) living at the piggery, transport workers, veterinarians (including veterinary students and nurses) and others involved in the care of pigs.
  - pork abattoir or pork rendering plant.
- Personnel who work directly with mosquitoes through their surveillance (field or laboratory based) or control and management, and indirectly through management of vertebrate mosquito-borne disease surveillance systems (e.g. sentinel animals) such as: environmental health officers and workers (urban and remote) or entomologists
- All diagnostic and research laboratory workers who may be exposed to the virus, such as persons working with JEV cultures or mosquitoes with the potential to transmit JEV; as per the Australian Immunisation Handbook.

Vaccine doses can be ordered through the State Vaccine Centre (<https://nsw.tollhealthcare.com/>).

Practices administering vaccines to people who live/work in high-risk LGAs can order up to 50 doses of Imojev, or more than 15 doses of JEspect (for immunocompromised people, pregnant people or very young children). Larger orders can be arranged (supply dependent) by contacting the local public health unit on **1300 066 055**.

**For more information contact your local public health unit on 1300 066 055.**

Yours sincerely

**Dr Kerry Chant AO PSM**

**Chief Health Officer and Deputy Secretary Population and Public Health**

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**NSW Ministry of Health**

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