Update on Japanese encephalitis (JE) virus and other mosquito-borne disease risks

Please distribute to all primary care providers

1. JE and MVE viruses have been detected in a large stretch of NSW west of the Great Dividing Range
2. Offer free JE vaccination to eligible patients and advise on mosquito bite prevention
3. Follow JE booster recommendations as per the Australian Immunisation Handbook for eligible patients

What is the issue?

Japanese Encephalitis (JE) virus and Murray Valley Encephalitis (MVE) virus have re-emerged in NSW, posing an ongoing risk of infection in higher-risk areas (see blue areas on map over-page). Cases of JE have been notified in eastern Australian states this summer. Severe cases of JE or MVE may present with neurological symptoms, including acute encephalitis.

What should I advise my patients?

- **Advise patients** on how to prevent mosquito borne infections, visit: Mosquito-borne diseases
- **Offer free vaccine** to people who are eligible either based on location or occupation
- **Follow the booster dose recommendations** in the Australian Immunisation Handbook ('Recommended doses of Japanese encephalitis vaccines' table). In NSW, eligible individuals should be considered as at ongoing risk of exposure.
- **JE booster doses are recommended** 1-2 years after the primary course for those who remain eligible in NSW, and whose primary course was with either:
  - JEspect and the individual was ≥ 18 years, or
  - Imojev, and the individual was < 18 years
- **Discuss any suspected cases** with an infectious disease physician

Who is eligible for free JE vaccine?

In NSW, free JE vaccine is available for people aged 2 months or older, who meet either of the following criteria (for complete list, visit NSW Health JE Vaccination):

Location-based eligibility

People who live or routinely work in Local Government Areas of high JE virus concern (see the full list of areas at NSW Health JE Vaccination) and who:

- Regularly spend time outdoors,
- Are experiencing homelessness,
- Are living in conditions with limited mosquito protection (e.g., tents, caravans, dwellings without insect screens),
- Are engaged in outdoor flood recovery (clean-up) efforts, including repeated professional or volunteer deployments.

Occupation-based eligibility

People **anywhere in NSW** who work in high-risk environments. A full list is available at NSW Health JE Vaccination, but includes pig industry workers, mosquito surveillance and control workers and laboratory workers.

Further information:

Contact your public health unit on 1300 066 055 or visit:

- Japanese encephalitis – Information for health professionals (includes further case studies)
- Mosquito Borne Diseases

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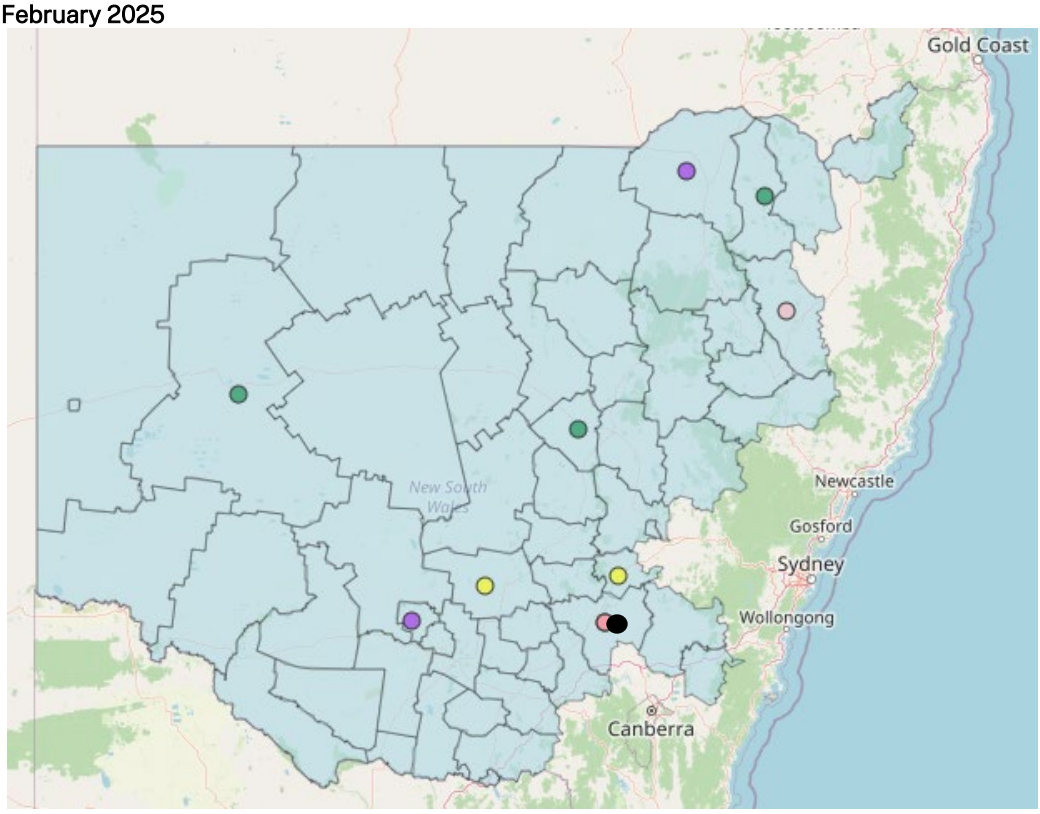
Update on JE virus and other mosquito-borne disease risks in NSW (continued)

17 February 2025

Figure 1: Map of higher-risk areas for JE virus exposure in NSW, December 2024-February 2025



Key:

Blue shapes: JEV vaccine eligible local government areas in NSW

Black dots: JEV case exposure location

Purple dots: JEV detections in mosquitoes

Green dots: JEV detections in feral pigs

Pink dots: JEV detections in commercial piggeries

Yellow dots: MVEV seroconversions in sentinel chickens

Case study examples

Joseph is 72 years old, retired, and lives in his own home in Moree. Joseph has insect screens on all his doors and windows. Joseph sits in his garden each morning reading the newspaper.

Is Joseph eligible for JE vaccination? **YES. Joseph spends time outside in an eligible area.**

Mary is 35 years old and works in an office in Griffith. Mary has two children, Georgia (6 years old) and Henry (2 years old). Mary walks Georgia to school each day and Henry comes along on his scooter. Mary is currently pregnant.

Is Mary eligible for JE vaccination? **YES. Mary spends time outside in an eligible area.**

Is Henry and Georgia eligible for JE vaccination? **YES both children spent time outside in an eligible area.**

Andy is 38 years old and lives in Coffs Harbour. Andy is a Rural Fire Service volunteer and is regularly deployed to western NSW to respond to emergencies as a volunteer.

Is Andy eligible for JEV vaccination? **YES, Andy is regularly deployed to JEV-risk areas for outdoor volunteer work.**