

COMMUNICABLE DISEASES NETWORK AUSTRALIA
Japanese encephalitis Sub-Group

Advice regarding vaccination against Japanese encephalitis virus

Japanese encephalitis virus (JEV) is a mosquito-borne flavivirus associated with pigs and water birds, that can cause disease in humans and rarely other animals. Pigs are amplifying hosts that can infect mosquitoes (some *Culex* species) with subsequent transmission to humans. Infection is usually asymptomatic or associated with mild symptoms in humans, but it can cause severe disease including an acute encephalitis, causing death or chronic neurological sequelae.

As of 4th March 2022, JEV was confirmed at 14 piggeries across NSW, SA, Queensland and Victoria.¹ Suspected and confirmed cases of Japanese encephalitis in humans have also been reported in those states.

Safe and effective vaccines are available. For more detail on the available vaccines and their usage see the [Australian Immunisation Handbook](#) and [Australian Technical Advisory Group on Immunisation](#) guidance.

The primary route of JEV acquisition in humans is through mosquito bites. For this reason, the initial priority groups for vaccination against JEV are individuals with:

- direct exposure or close proximity to pigs and mosquitoes; and
- high-level occupational exposures.

JEV vaccination is recommended for:

- People who work at, reside at, or have a planned, non-deferable visit to:
 - o 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 and others involved in the care of pigs
 - o a 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:
 - o Environmental health officers and workers (urban and remote)
 - o Entomologists
- All diagnostic and research laboratory workers who may be exposed to the virus, such as persons working with JE virus cultures or mosquitoes with the potential to transmit JE virus; as per the Australian Immunisation Handbook.²

Initial distribution of vaccine should be prioritised to those currently at highest risk of JEV exposure in mainland Australia, and Torres Strait Islands and Tiwi Islands. This includes individuals in the group recommended for JEV vaccination with exposure to piggeries with confirmed or suspected JEV outbreaks in their pig population.

Recommended groups and prioritisation of vaccine distribution will be constantly reviewed as further human and pig surveillance data, and mosquito trap testing data become available.

Prevention of JEV infection

Vaccination against JEV infection is safe and effective, and is part of a broader JEV control strategy that includes mosquito control, active mosquito avoidance, and use of insect screens and mosquito nets, and personal preventive measures such as repellents, long loose fitting clothing, coils and vaporisers.

Non-essential travel to areas of known or potential JEV transmission, including piggeries, should be avoided.

Further information

For further information on the JEV vaccination program, including eligibility; please contact your state or territory Department of Health.

¹ <https://www.health.gov.au/news/japanese-encephalitis-virus-situation-declared-a-communicable-disease-incident-of-national-significance>

² <https://immunisationhandbook.health.gov.au/vaccination-for-special-risk-groups/vaccination-for-people-at-occupational-risk>