

Japanese encephalitis Virus vaccination

Information for immunisation providers – Version 3.7

OFFICIAL

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Summary of actions required

1. Determine Japanese encephalitis (JE) vaccine requirements
2. Offer vaccination
3. Arrange follow-up vaccination appointment (as required)

Vaccination

Who JE vaccine is recommended for?

The JE vaccine is available for free for the following priority groups who are recommended for vaccination.

- People who work at, reside, 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 above) living at the piggery, transport workers, veterinarians and others involved in care of pigs
- property that has been confirmed to be infected with JE virus
- property suspected to be infected with JE virus
- a pork abattoir or pork rendering plant.
- Personnel who work directly with mosquitoes through their surveillance (field or laboratory based) or control management, and indirectly through management of vertebrate mosquito-borne disease surveillance systems (e.g. sentinel animals) such as:
 - Environmental health officers and workers
 - Entomologists
 - Pest controllers.
- Laboratory workers who may be exposed to JE virus, such as persons working with JE virus cultures or mosquitoes with the potential to transmit JE virus, as per the [Australian Immunisation Handbook](#)ⁱ.
- People who reside or usual place of work in the following local government areas of Mildura, Swan Hill, Gannawarra, Campaspe, Moira, Greater Shepparton, Indigo, Wodonga, Loddon **and who meet the following criteria:**
 - aged 50 to 65 years **and**
 - employed in an occupation that is largely or totally outdoors (defined as spending at least 4 hours per day outdoors).

Vaccine information

The [Australian Immunisation Handbook Japanese Encephalitis section](#)ⁱⁱ provides specific guidance on the use of JE vaccines, including booster doses, precautions and contraindications. Please refer to the handbook when determining JE vaccine requirements for clients.

There are two types of JE vaccines available for use in Australia:

- Imojev[®] - live attenuated Japanese encephalitis vaccine
- JEspect[®] inactivated Japanese encephalitis vaccine.

Both are recommended for the current JE outbreak in Victoria. **However, Imojev[®], which requires only a single dose, will be prioritised during this outbreak and is suitable for people from 9 months of age.**

Infants aged from 2-9 months, pregnant and breastfeeding women, people who have recently received immunoglobulin or blood products or people who are immunosuppressed must be vaccinated with JEspect[®] which requires 2 doses of vaccine (see Table 2).

Adults receiving JEspect[®] are recommended to receive a primary course of 2 doses x 0.5ml (0,28 days) (see **Table 1**).

Vaccine dose and route

Table 1. JE vaccine dose and route

Age at vaccination	Vaccine	Number of doses	Notes
≥2 months to <18 years	JEspect® -IM injection	2 doses (0,28 days)	Each dose of JEspect® in infants and children aged ≥2 months to <3 years is 0.25 mL.
≥9 months to <18 years	Imojev® -SC injection	1 dose	Live vaccine. Check contraindications prior to administration.
≥18 years	Imojev® -SC injection	1 dose	Live vaccine. Check contraindications prior to administration.
	JEspect® -IM injection	2 doses (0,28 days) 2 doses (0,7 days)	Adults are recommended to receive a primary course of JEspect® (2 x 0.5mL doses 0, 28 days) An accelerated primary course of JEspect® (2 x 0.5 mL doses 0,7 days) may be considered for clinical reasons as a case by case scenario for persons who are at high risk of immediate exposure

For specific vaccine product information, please refer to The Therapeutic Goods Administration website which provides product information for each vaccine - [Therapeutic Goods Administration \(TGA\)](#)ⁱⁱⁱ.

The Australian Technical Advisory Group on Immunisation (ATAGI) have also prepared [clinical guidance on Japanese encephalitis virus vaccines](#)^{iv}.

Precautions and contraindications

Always use the [pre immunisation checklist](#)^v prior to administering vaccines. Assess each client against the following precautions and contraindications before giving a JE vaccine.

Table 2: Vaccine specific contraindications

Imojev®	JEspect®
<p>Imojev® is contraindicated in people who are:</p> <ul style="list-style-type: none"> • Immunocompromised • Pregnant women (*Women should avoid pregnancy for 28 days after vaccination*) • Breastfeeding women should not receive Imojev® because it is not known whether the virus is excreted in breast milk. • People who have received immunoglobulin or blood product administration. Do not give Imojev® within 6 weeks after giving immunoglobulins or immunoglobulin-containing blood products. It is preferable to wait 3 months. 	<p>JEspect® is an inactivated vaccine, so it is not expected to cause any safety concerns in people who are immunocompromised.</p> <p>Women who are pregnant or breastfeeding</p> <ul style="list-style-type: none"> • JE vaccine is not routinely recommended for pregnant or breastfeeding women. However, pregnant women at risk of acquiring JE are recommended to receive JEspect®. • Breastfeeding women who are at increased risk of acquiring JE are recommended to receive JEspect®.

Table 3. Precautions and contraindications of JE vaccine

Precautions	Contraindications
People with an acute febrile illness should not receive JE vaccines.	JE vaccines are contraindicated in people who have had: <ul style="list-style-type: none"> • anaphylaxis after a previous dose of any JE vaccine • anaphylaxis after any component of a JE vaccine

Co-administration of JE vaccine with other vaccines

Table 2. Co-administration of JE vaccine and other vaccines

Imojev®	JEspect®
<p>People can receive Imojev® at the same time as:</p> <ul style="list-style-type: none"> • yellow fever vaccine⁶ • MMR (measles-mumps-rubella) vaccine⁷ <p>Use separate syringes and inject in separate limbs. If a person does not receive Imojev® and yellow fever vaccine (or other live vaccines) at the same time, they should receive them at least 4 weeks apart.</p>	<p>People can receive JEspect® at the same time as:</p> <ul style="list-style-type: none"> • hepatitis A vaccine⁸ • quadrivalent (ACWY) meningococcal conjugate vaccine • rabies vaccine⁹ <p>Use separate syringes and inject in separate limbs.</p>

Can JE vaccines be co-administered with COVID-19 and influenza vaccines?

ATAGI have made recommendations for healthcare providers administering Japanese encephalitis virus (JEV) vaccines. ATAGI advises that either Imojev or JEspect can be co-administered with other vaccines if required. For more information see the [Australian Immunisation Handbook](#)^{vi}.

What are the JE vaccine side effects?

Injection site reactions and minor systemic reactions are common after JE vaccination. Report serious adverse reactions to Surveillance of Adverse Events Following Vaccination In the Community (SAEFVIC), the vaccine safety surveillance service in Victoria.

Table 5. Common reactions to JE vaccines

Imojev®	JEspect®
<p>Most commonly reported adverse reactions included headache and myalgia. They usually occur within the first three days after vaccination, are usually mild and disappear within a few days.</p> <p>In children, common or expected reactions to the vaccine include pain, redness and swelling at the injection site. Appetite loss, irritability, and abnormal crying.</p>	<p>The most frequently reported systemic reactions include headache and myalgia.</p>

Where do I report JE vaccines given?

JE vaccines should be reported to the Australian Immunisation Register (AIR) using your medical practice software. Reporting these vaccinations to the AIR means that **the register contains a complete and reliable dataset and is able to monitor immunisation coverage and administration**. It also means that individuals have a complete record of their vaccinations.

When are booster doses of JE vaccine recommended?

Booster doses are recommended 1-2 years after vaccination for some cohorts, depending on the vaccine brand used for the primary dose/s and if there is an ongoing risk of JE infection.

Natural infection with JE virus is believed to confer lifelong immunity. There is no recommendation for JE vaccination following laboratory confirmed JE infection.

Table 6. Booster dose recommendations

Imojev®	JEspect®
≥9 months to <18 years: 1-2 years after primary dose if ongoing risk of JE virus exposure ≥18 years: not required	≥2 months to <18 years: Not recommended. No data available to inform recommendation. Consider a booster if the child needs sustained protection. ≥18 years: 1–2 years after primary dose if ongoing risk of JE virus exposure

For further information about JE vaccine booster doses please refer to the [Australian Immunisation Handbook – Japanese encephalitis chapter](#)^{vii}.

Vaccine transport, storage and handling

JE vaccine is to be stored and transported according to [National vaccine storage guidelines: Strive for 5](#)^{viii}.

- Store JE vaccine at +2°C to +8°C.
- **Do not freeze.**
- **Protect from light.**

Imojev® **must be reconstituted**. Add the entire contents of the diluent container to the vial and shake until the powder completely dissolves. Use the reconstituted vaccine within 1 hour.

For cold chain breach information and action please visit - [Cold chain breach reporting](#)^{ix} or [email the Immunisation Unit](#) <immunisation@health.vic.gov.au>.

Vaccine ordering and supply

The Victorian Department of Health has ordered JE vaccines - Imojev® and JEspect®.

- **GPs, Community pharmacies & local councils**
JE vaccine can be ordered online using your [Onelink vaccine account](#)^x.
- **Local Public Health Units**

LPHUs (only) are required to order JE vaccine via this [JE vaccine order form](#)^{xi}.

Please note: due to restricted stock, JE vaccine orders will be limited. If you require vaccine exceeding orders limits please [email the Immunisation Unit](#) <immunisation@health.vic.gov.au>.

Onelink will process the order and send a confirmation to the email address registered.

Further information

- [Australian Immunisation Handbook – Japanese encephalitis Section](#) <<https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/japanese-encephalitis>>
- [Australian Technical Advisory Group on immunisation \(ATAGI\) clinical guidance on Japanese encephalitis virus vaccines](#) <<https://www.health.gov.au/health-alerts/japanese-encephalitis-virus-jev/clinical-guidance>>
- [Australian Government Department of Health, Therapeutic Goods Administration - Australian Public Assessment Report for Japanese encephalitis vaccine \(live, attenuated\)](#) <<https://www.tga.gov.au/auspar/auspar-japanese-encephalitis-vaccine-live-attenuated>>
- [Communicable Diseases Network Australia \(CDNA\) advice regarding vaccination against Japanese encephalitis virus](#) <<https://www.health.gov.au/resources/publications/cdna-advice-regarding-vaccination-against-japanese-encephalitis-virus>>
- [SAEFVIC](#) <<https://www.safevac.org.au/Home/Info/VIC>>

Contact information

For JE vaccine specific queries please [contact the Immunisation Unit via email](#) <immunisation@health.vic.gov.au>

To receive this document in another format, [email the Immunisation Unit](#) <immunisation@health.vic.gov.au>.

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Available at [Information for Health Professionals – Japanese Encephalitis in Victoria](#)

<<https://www.health.vic.gov.au/infectious-diseases/information-for-health-professionals-japanese-encephalitis-in-victoria>>

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

ⁱⁱ <https://immunisationhandbook.health.gov.au/contents/vaccine-preventable-diseases/japanese-encephalitis>

ⁱⁱⁱ <https://www.tga.gov.au/>

^{iv} <https://www.health.gov.au/health-alerts/japanese-encephalitis-virus-jev/clinical-guidance>

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- v <https://www.health.vic.gov.au/publications/pre-immunisation-checklist>
- vi <https://immunisationhandbook.health.gov.au/contents/vaccine-preventable-diseases/japanese-encephalitis>
- vii <https://immunisationhandbook.health.gov.au/contents/vaccine-preventable-diseases/japanese-encephalitis>
- viii <https://www.health.gov.au/resources/publications/national-vaccine-storage-guidelines-strive-for-5>
- ix <https://www.health.vic.gov.au/immunisation/cold-chain-breach-reporting>
- x <https://www.onelinkonline.net/>
- xi <https://forms.office.com/pages/responsepage.aspx?id=H2DgwKwPnESciKEExOufKCSmZxDa3xhBuPAJN3fVuqtURjBJNzMyTEIHMIVBQUdLR1FLVE8yTIRVUSQIQCN0PWcu&web=1&wdLOR=c76059638-2942-43A0-853C-5AC4441C9BEC>