

Public Health Update

April 4, 2025

Guidance for Administering Accelerated Second Dose of MMR/MMRV Vaccines

Key points:

- 1. MMRV administered earlier than 4–6 years is covered under the provincial program at this time.
- 2. MMRV has a slightly increased risk of febrile seizures in children aged 12–23 months. To reduce this risk, you may choose to administer MMR and varicella separately at appropriate intervals in children under the age of 2 years. Provide appropriate counselling on risks and benefits.
- 3. Either MMR or MMRV vaccine can be used if minimum intervals are met, with appropriate counselling on risks and benefits.

Order of Vaccines	Recommended Intervals	Minimum Intervals
MMR then MMR	1 month	4 weeks
MMR then MMRV / MMRV then MMR	3 months	6 weeks
MMR then Var / Var then MMR	1 month	4 weeks
MMRV then MMRV	3 months	6 weeks
Var then MMRV / MMRV then Var	3 months	6 weeks
Var then Var	3 months	6 weeks
Note: MMR and Var may be given on the same day if required		

4. Children receiving an accelerated second dose of MMR/MMRV should be booked for Tdap-IPV after 4 years of age (and varicella, if MMR was used).

Vaccine Options for Accelerated Second Dose (Under 4 Years)

Children receiving an accelerated second dose prior to 4 years of age may receive either the MMR vaccine or the MMRV vaccine. Healthcare providers should use clinical judgment on a case-by-case basis to decide which vaccine to administer.

Key considerations include:

- The child's age.
- Timing since their last dose of MMR or Varicella vaccine.
- Whether the child's varicella vaccines require updating.

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Safety Considerations

Parents should be counseled about the increased risk of febrile seizures associated with the MMRV vaccine compared to MMR and univalent varicella vaccines administered separately during the second year of life. According to the Canadian Immunization Guide (CIG):

First Dose Risk:

- Children aged 12–23 months who receive the MMRV vaccine have a slightly higher risk of fever and febrile seizures 7–10 days post-vaccination compared to separate administration of MMR and Varicella vaccines.
- Estimated risk: Approximately 1 additional febrile seizure per 2,300–2,800 doses of MMRV vaccine.

Second Dose Risk:

- The increased risk of febrile seizures is associated with the first dose rather than the second. For older children (4–6 years), studies suggest a lower baseline risk of febrile seizures after a second dose.

Recommendations

National Advisory Committee on Immunization (NACI) Guidance (2016) recommends that provinces and territories may implement either MMRV or MMR+V as the first dose, with no preference expressed for one or the other. Considerations include:

- Parental acceptability of febrile seizure risks.
- Impact on vaccine safety perception and coverage rates.
- The need for an additional injection.

These considerations may vary by jurisdiction.

The Advisory Committee on Immunization Practices (ACIP) and the Centers for Disease Control and Prevention (CDC) recommends children aged 15 months and older receive MMRV over MMR and univalent Varicella vaccines for their second dose, despite limited studies on febrile seizure risks in this age group.

For further information, refer to the <u>CDC MMRV Questions and Answers for Healthcare Providers</u> resource.

In Canada, most provinces and territories use the MMRV vaccine in their routine infant immunization schedules for both first and second doses, often administered at 12 and 18 months of age. Exceptions include British Columbia, Yukon, and Ontario, where MMR and Varicella vaccines are administered separately for the first dose.

If you have any questions, please contact the Immunization Team at 1-888-221-2133 ext. 3558.

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