

A Guide to Measles, Mumps, Rubella and Varicella Vaccines

Purpose of this guide

In Canada, measles vaccine is only available in combination with mumps and rubella, or mumps, rubella and varicella protection. A monovalent Varicella vaccine is also available. Selecting the incorrect vaccine or administration before the minimum interval between doses can result in inadequate protection, requiring additional vaccine doses to meet childcare and school requirements. This guide is meant to assist healthcare providers with the assessment of immunization records for childcare- and school-aged patients.

Available measles-containing vaccines:

| Antigen Code | Products Available | Antigen protection included in vaccine |
|--------------|--------------------------|--|
| MMR | MMRII PRIORIX | Measles (M), Mumps (Mu), and Rubella (R) |
| MMRV | ProQuad PRIORIX-TERTA | Measles (M), Mumps (Mu), Rubella (R), and Varicella (V or Var) |
| *Var | VARIVAX III VARILRIX | Varicella (Var) |

*Varicella vaccine is required for children born in 2010 and later.

Children aged one to less than four years old

RULE #1: The first dose of MMR vaccine is due when a child is 12 months old, and first dose Varicella vaccine is due at 15 months old. To meet childcare and school requirements, **MMR and Varicella vaccines CANNOT be given before the child's first birthday** and must be spaced appropriately.

- Some countries administer measles containing vaccine before the first birthday, and in Canada, MMR vaccine is approved for use in infants as young as six months of age, for reasons such as travel. However, to count towards childcare and school legislation requirements, children under the age of four must have received a dose on or after their first birthday.

RULE #2: MMR and Varicella **should be given as separate vaccines** to children between the ages of **12 months and less than four years old**.

- MMRV is not publicly funded for children in this age group.
- If there were delays in receiving vaccines and the child needs both MMR and Varicella, administer as separate vaccines on the same day (one in each arm) or on separate appointments following appropriate spacing.
- There is an increased risk of febrile seizures when MMRV vaccine is administered between the ages of one year and less than two years old.

Children between the ages of four and less than 13 years old

RULE #4: The second doses of MMR and Varicella are due when a child is between the ages of four and six years old. To meet school requirements, the **second doses are due before the child's seventh birthday**.

- If the child has already had two doses of appropriately spaced MMR and/or varicella on/after their first birthday but before they turn four, this counts as their second doses, and additional doses are not needed.

RULE #5: MMR and Varicella can be administered as the combination MMRV vaccine to children between the ages of four and less than 13 years old who require protection against all four antigens.

Children 13 years and older

RULE #6: MMRV is NOT authorized for use in children 13 years of age and older. MMR and Varicella must be given as **separate vaccines**.

- MMRV administered to children 13 years of age and older are invalid and need to be repeated following appropriate spacing.

Spacing Considerations for MMR, MMRV and Varicella Vaccines

- MMR, MMRV and Varicella are all live vaccines. MMR and Varicella can be administered on the same day using separate sites. If not administered on the same day, live vaccines need to be spaced appropriately.
- When two live vaccines are administered too close together, the immune response to the second vaccine may be diminished by the immune response to the first vaccine.
 - In these cases, the dose of the second vaccine is considered invalid and should be repeated following appropriate spacing recommendations.

| Order of Vaccines | Recommended / Minimum Interval |
|--------------------------------------|--------------------------------|
| MMR then MMR | Four weeks |
| MMR then MMRV / MMRV then MMR | Three months / Six weeks |
| MMR then Var / Var then MMR | Four weeks |
| MMRV then MMRV | Three months / Six weeks |
| Var then MMRV / MMRV then Var | Three months / Six weeks |
| Var then Var | Three months / Six weeks |

Questions? Contact the Health Unit's Vaccine Preventable Disease Team at 519-663-5317 or *email shots@mlhu.on.ca.
 *Email is not a secure method of communication and should not include client identifying information.