Combination Measles-Mumps-Rubella and Varicella Vaccine (MMRV)

PRIORIX-TETRA® **Supplier: GlaxoSmithKline Inc.**
PROQUAD® **Supplier: Merck Canada Inc.**

INDICATIONS:

- School entry dose (4-6 years of age).
- Susceptible unimmunized or incompletely immunized persons 4-12 years of age. [A]

In BC these vaccines are not routinely recommended in children under 4 years of age as a first dose due to increased risk of febrile seizures. In areas experiencing measles outbreaks as determined by the regional MHO, MMRV may be provided as a 2nd dose to those under 4 years of age. [B]

DOSES AND SCHEDULE:

Routinely as a 2nd dose at 4-6 years of age (inclusive): 1 dose given as 0.5 mL **SC** (see ADMINISTRATION). [C]

Unimmunized persons 4-12 years of age (inclusive): 2 doses given as 0.5 mL **SC**, 12 weeks apart (see ADMINISTRATION). [C]

Incompletely immunized persons 7-12 years of age (inclusive): 1 dose given as 0.5 mL **SC** (see ADMINISTRATION).

ADMINISTRATION:

- Both products need to be reconstituted. Use the diluent provided with the vaccine.
- PROQUAD®: Administer the entire volume of reconstituted product, which may be 0.5-0.7 mL.
- PRIORIX-TETRA®: Administer the entire volume of reconstituted product, which may be 0.5-0.7 mL.
- Per the product monographs, both products may be administered either subcutaneously (SC) or intramuscularly (IM).

BOOSTER DOSES:

No booster doses are recommended at this time.

[A] As of June 2018, a varicella susceptible person is one without a history of lab confirmed varicella or herpes zoster after 12 months of age and without a history of age-appropriate varicella immunization. Individuals with a documented exemption in the immunization registry prior to this date due to previous disease will be considered immune. A self-reported history of varicella or physician diagnosed varicella is adequate only if disease occurred before 2004.

[B] Although MMRV is approved from ≥ 12 months to 12 years of age (inclusive), it is not recommended as a 1st dose in those < 4 years of age due to an increased risk of febrile seizures. The risk of febrile seizure has not been found to be elevated when MMRV is used for the 2nd dose. In children < 2 years of age, who have a family or personal history of seizures of any etiology separate MMR and varicella vaccines should **always** be used.

[C] The recommended interval between 2 doses of MMRV or between a dose of varicella containing vaccine and MMRV is 12 weeks; this is also the minimum interval to be used when scheduling a 2nd dose. However, if an interval as short as 4 weeks was used, the dose does not need to be repeated.

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SEROLOGICAL TESTING:

Serological testing is not routinely recommended before or after immunization.

CONTRAINDICATIONS:

1. History of anaphylactic reaction to a previous dose of a measles, mumps, rubella or varicella-containing vaccine or to any component of MMRV (See SPECIAL CONSIDERATIONS).
2. Persons with impaired immune function, including primary or secondary immunodeficiency disorders. Such individuals should be offered MMR and varicella vaccines by separate injection if indicated as per Part 2 – Immunization of Special Populations, Specific Immunocompromising Conditions. See also separate MMR and varicella vaccine product pages.
3. Pregnancy: Pregnancy should be avoided for 1 month following immunization. Risk is theoretical and has not been observed. Inadvertent immunization during pregnancy is not considered a medical indication for therapeutic abortion and reassurance should be offered that teratogenicity from the vaccine has not been observed.
4. Physician-diagnosed significant thrombocytopenia after 1st dose of MMR-containing vaccine with no other cause identified. In such individuals the risk of recurrence of thrombocytopenia following a 2nd dose of measles-containing vaccine is not known. Testing to confirm immunity to measles and mumps, the components for which a 2nd dose is recommended to ensure optimal protection, may help inform the decision.
5. Active untreated TB.

PRODUCT COMPONENTS:

PROQUAD®:

Potential allergens: hydrolyzed gelatin, neomycin, bovine serum albumin, egg protein (See SPECIAL CONSIDERATIONS).

Other componments: sucrose, urea, sorbitol, monosodium L-glutamate, sodium phosphate, recombinant human albumin, sodium bicarbonate, potassium phosphate, potassium chloride.

PRIORIX-TETRA®:

Potential allergens: neomycin sulphate, egg protein (See SPECIAL CONSIDERATIONS).

Other components: amino acids, lactose, mannitol, sorbitol.

PRECAUTIONS:

- Those 18 years of age and under should avoid taking salicylates for 6 weeks following immunization with MMRV. This is based on the association between salicylate use and wild type varicella infection; Reye syndrome has not been reported in association with varicella vaccine. NACI recommends that children and teens on chronic salicylate therapy should be considered for immunization with close subsequent monitoring.
- MMRV immunization should be given on the same day or delayed until 4 weeks after administration of another live parenteral vaccine.
- TB skin testing should be completed on the same day as MMRV immunization or after an interval ≥ 4 weeks.

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PRECAUTIONS (continued):

- Recent administration of an immunoglobulin preparation or blood product is a reason for deferral. See Part 4 – Biological Products, Immune Globulin Preparations or Blood: Timing Intervals for Vaccines Containing Live Measles, Mumps, Rubella, or Varicella Virus.
- The varicella component of MMRV vaccine may have reduced effectiveness if given concurrently with antivirals active against varicella zoster virus such as acyclovir, valacyclovir, or famciclovir. People taking long-term antiviral therapy should discontinue these drugs, if possible, at least 24 hours before administration of this vaccine and should not restart antiviral therapy until 14 days after vaccination.

SPECIAL CONSIDERATIONS:

NACI recommends that egg allergic individuals (including those who have experienced anaphylaxis following egg ingestion) can be immunized with MMR-containing vaccine in any setting attended by immunization service providers who are following standard vaccine administration practices.

ADVERSE EVENTS:

Local: pain, redness, swelling.

Systemic: fever, irritability, rash, parotitis.

Thrombocytopenia and encephalitis have been rarely associated with MMR vaccines. Though not yet established through post marketing surveillance, any association with MMRV vaccine is expected to be similar.