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- Refer to SIM, Chapter 5, *Immunization Schedules,* Section 2.1, *Minimum Intervals for Specific Vaccine Series*.
- Product monographs are available in Health Canada's Drug Product Database.
- For post-exposure immunoprophylaxis, refer to the Saskatchewan Communicable Disease Control manual.

- **Herpes Zoster**
  - Shingrix™ **(RZV)**
- **Human Papillomavirus**
  - CERVARIX™ **(HPV-2**)
  - GARDASIL®9 **(HPV-9)**
- **Influenza**
  - FLUAD
  - FLUVIRAL
  - FLUZONE®
  - FLUZONE® HIGH DOSE
  - FLUCELVAX
  - FLUMIST
- **Japanese Encephalitis (JE)**
  - IXIARO™
- **Measles-Mumps-Rubella (MMR)**
  - MMRII™
  - PRIORIX™
- **Measles-Mumps-Rubella-Varicella (MMRV)**
  - PRIORIX-Tetra™
  - ProQuad™
- **Meningococcal Conjugate ACYW-135** (**Men-C-ACYW-135**)
  - MenQuadfi™
  - Menveo™
  - NIMENRIX™
- **Meningococcal B**
  - BEXSERO® **(MenB 4C)**
  - Trumenba™ **(MenB bivalent)**
- **Pneumococcal Conjugate**
  - SYNFLORIX™ **(Pneu-C-10)**
  - Prevnar® 13® **(Pneu-C-13)**
  - VAXNEUVANCE® **(Pneu-C-15)**
  - PREVNAR 20 ™ **(Pneu-C-20)**
    - **Pneu-C-20 Immunization Schedules for Individuals Who Have Qualifying Medical/Lifestyle Risk Factors**
  - CAPVAXIVE® **(Pneu-C-21)**
    - **Pneu-C-21 Immunization Schedules for Individuals 65 Years and Older**
- **Poliomyelitis (Inactivated) (IPV)**
  - IMOVAX® Polio
- **Rabies (Rab) (Post-exposure prophylaxis)**
  - IMOVAX® Rabies
  - RabAvert®
- **Respiratory Syncytial Virus (RSV)**
  - ABRYSVO (RSVpreF)
  - AREXVY (RSVPreF3)
  - mRESVIA (mRNA-1345)

- **Rotavirus**
  - Rotarix™ **(Rot-1)**
  - RotaTeq® **(Rot-5)**
- **Smallpox and Mpox (SMV)**
  - IMVAMUNE
- **Tetanus-Diphtheria (Td)**
  - Td Adsorbed™
- **Tetanus-Diphtheria-acellular Pertussis (Tdap)**
  - ADACEL®
  - BOOSTRIX™
- **Tetanus-Diphtheria-acellular Pertussis-Inactivated Poliomyelitis (Tdap-IPV)**
  - ADACEL®-Polio
  - BOOSTRIX®-Polio™
- **Typhoid (Typh-I) (Salmonella Typhi Vi Capsular Polysaccharide)**
  - Typhim Vi®
- **Typhoid (Typh-O) (Live Oral Attenuated Ty 21a)**
  - Vivotif®
- **Varicella (Var)**
  - VARILRIX®
  - Varivax III™
- **Yellow Fever (YF)**
  - YF-Vax™

2.0 DIAGNOSTIC, PASSIVE IMMUNIZING AND ANTITOXIN AGENTS

- **Purified (tuberculosis) Protein Derivative (PPD) (Mantoux)**
  - Tubersol®
- **Botulism Immune Globulin**
  - BabyBIG
- **Hepatitis B Immune Globulin (HBIg)**
  - HepaGam B ™
  - HyperHEP B™
- **Immune Globulin (Ig - Intramuscular)**
  - GamaSTAN™
- **Rabies Immune Globulin (RabIg)**
  - HYPERRAB™
  - KamRAB™
- **Tetanus Immune Globulin (TIg)**
  - HYPERTET™
- **Varicella zoster Immune Globulin (VarIg)**
  - VariZIG™
- **Botulism Antitoxin (BAT)**
  - Botulism Antitoxin
- **Diphtheria Antitoxin (DAT)**
  - Diphtheria Antitoxin

THIS CHAPTER MEETS THE FOLLOWING IMMUNIZATION COMPETENCIES FOR HEALTH PROFESSIONALS (PHAC, 2008): http://www.phac-aspc.gc.ca/im/pdf/ichp-cips-eng.pdf

#4: The Types of Immunizing Agents and Their Composition

- Competency: Applies the knowledge of the components and properties of immunizing agents as needed for safe and effective practice.

#8: Administration of Immunizing Agents

- Competency: Prepares and administers immunization agents correctly.

#11: Populations Requiring Special Considerations

- **Competency**: Recognizes and responds to the unique immunization needs of certain population groups

Chikungunya (Chik) [Non-publicly funded]

IXCHIQ®
Product monograph: https://valneva.com/products/valnevas-products/

VIMKUNYA®
Bavarian Nordic product monograph.

Cholera (Chol-O) [Non-publicly funded]

VAXCHORA®
Bavarian Nordic product monograph.

Cholera - E. coli (Chol-Ecol-O) [Non-publicly funded]

DUKORAL®
Product monograph available at https://valneva.com/products/valnevas-products/

2026-27 Publicly Funded COVID-19 Immunization Schedules

Refer to *Canadian Immunization Guide* for a list of immunocompromising conditions
https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-26-covid-19-vaccine.html#a6.4*

Table 1: Schedules for individuals presenting at 12 years and older who are NOT immunocompromised

Vaccination History (non-2026-27 vaccine)	COVID-19 vaccine dosage	Doses required	Interval between last non-2026-27 vaccine & 2026-27 vaccine
0 doses	SPIKEVAX 0.5 mL (50 mcg)	1	N/A
	COMIRNATY 0.3 mL (30 mcg)		
	NUVAXOVID 0.5 mL (5 mcg)	2	≥ 3 weeks
1 or more doses	SPIKEVAX 0.5 mL (50 mcg)	1	≥ 8 weeks
	COMIRNATY 0.3 mL (30 mcg)		
	NUVAXOVID 0.5 mL (5 mcg)	1	≥ 8 weeks

Table 2: Schedules for individuals presenting at 12 years and older WHO ARE moderately to severely immunocompromised*

Vaccination History (non-2026-27 vaccine)	COVID-19 vaccine dosage	Doses required	Interval between last non-2026-27 vaccine & 2026-27 vaccine	Interval between 2026-27 vaccine doses
0 doses	SPIKEVAX 0.5 mL (50 mcg)	3	N/A	≥ 4-8 weeks
	COMIRNATY 0.3 mL (30 mcg)			
	NUVAXOVID 0.5 mL (5 mcg)	2	N/A	≥ 3 weeks
1 dose	SPIKEVAX 0.5 mL (50 mcg)	2	≥ 8 weeks	≥ 4-8weeks
	COMIRNATY 0.3 mL (30 mcg)			
	NUVAXOVID 0.5 mL (5 mcg)	1	≥ 3 weeks	N/A
2 or more doses	SPIKEVAX 0.5 mL (50 mcg)	1	≥ 8 weeks	N/A
	COMIRNATY 0.3 mL (30 mcg)			
	NUVAXOVID 0.5 mL (5 mcg)	1	≥ 8 weeks	N/A

Table 3: Schedules for children presenting at 5-11 years who are NOT immunocompromised

Vaccination History (non-2026-27 vaccine)	COVID-19 vaccine dosage	Dose required	Interval between last non-2026-27 vaccine & 2026-27 vaccine
0	SPIKEVAX 0.25 mL (25 mcg)	1	N/A
1 or more doses		1	≥ 8 weeks

Table 4: Schedule for children presenting at 5 to 11 years WHO ARE moderately to severely immunocompromised*

Vaccination History (non-2026-27 vaccine)	COVID-19 vaccine dosage	Doses required	Interval between last non-2026-27 vaccine & 2026-27 vaccine	Interval between 2026-27 vaccine doses
0 doses	SPIKEVAX 0.25 mL (25 mcg)	3	N/A	≥ 4-8 weeks
1 dose		2	≥ 8 weeks	≥ 4-8 weeks
2 or more doses		1	≥ 8 weeks	N/A

Table 5: Schedules for children presenting at age 6 months to 4 years who are NOT immunocompromised.

Vaccination History (non-2026-27 vaccine)	COVID-19 vaccine dosage	Doses required	Interval between last non-2026-27 vaccine & 2026-27 vaccine	Interval between 2026-27 vaccine doses
0 doses	SPIKEVAX 0.25 ml (25 mcg)	2	N/A	≥ 4-8 weeks
1 dose COMIRNATY		2	≥ 8 weeks	≥4-8 weeks
2 doses COMIRNATY		1	≥ 8 weeks	N/A
1 dose COMIRNATY **and** 1 dose SPIKEVAX				
1 dose SPIKEVAX				
3 doses COMIRNATY		1	≥ 8 weeks	N/A
2 doses SPIKEVAX				
2 doses COMIRNATY **and** 1 dose SPIKEVAX				
1 dose COMIRNATY **and** 2 doses SPIKEVAX				

Table 6: Schedules for children presenting at age 6 months to 4 years WHO ARE moderately to severely immunocompromised*

Vaccination History (non-2026-27 vaccine)	COVID-19 vaccine dosage	Doses required	Interval between last non-2026-27 vaccine & 2026-27 vaccine	Interval between 2026-27 vaccine doses
0 doses	SPIKEVAX 0.25 ml (25 mcg)	3	N/A	≥ 4-8 weeks
1 dose COMIRNATY		3	≥ 8 weeks	≥ 4-8 weeks
1 dose SPIKEVAX		2	≥ 8 weeks	≥ 4-8 weeks
2 doses COMIRNATY		2		
1 dose COMIRNATY **and** 1 dose SPIKEVAX		2		
2 doses SPIKEVAX		1	≥ 8 weeks	N/A
3 doses COMIRNATY				
2 doses COMIRNATY **and** 1 dose SPIKEVAX				
1 dose COMIRNATY **and** 2 doses SPIKEVAX				
4 doses COMIRNATY		1	≥ 8 weeks	N/A
3 doses SPIKEVAX				
3 doses COMIRNATY **and** 1 dose SPIKEVAX				
2 doses of COMIRNATY **and** 2 doses of SPIKEVAX				
1 dose of COMIRNATY **and** 3 doses of SPIKEVAX				

Moderna SPIKEVAX® COVID-19

Multidose vial, 0.1 mg/mL for 6 months and older

Single-dose pre-filled syringe, 50 mcg/0.5 mL for 12+ years

Schedule & Dosage	• Age 6 months through 11 years old: 0.25 mL Intramuscular injection (IM) only. • Age 12 years and older: 0.5 mL Intramuscular injection (IM) only. • Do not inject the vaccine intravascularly, subcutaneously or intradermally. • Refer to the 2026-27 COVID-19 Immunization Schedules.
Contraindications	• Anaphylaxis to previous dose of mRNA or other COVID-19 vaccine. • SPIKEVAX® is contraindicated in individuals who are hypersensitive to the active ingredient or to any ingredients in the formulation, including any non-medicinal ingredient, or component of the container.
Precautions	Refer to the *Canadian Immunization Guide* COVID-19 Vaccine chapter for precautions.
Expected Reactions	**Common or very commonly reported local and systemic adverse reactions lasting 2-3 days:** • Pain, warmth, redness and swelling at the injection site and/or limited movement of the immunized arm or leg. • Swollen and tender lymph nodes in the underarm (resolves in up to 7-10 days). • Headache, muscle aches, stiffness, joint pain, fever, chills, rash, fatigue, nausea, vomiting, loss of appetite. • A local delayed reaction (onset at least 7 days) known as 'COVID arm' is associated with mRNA COVID-19 vaccines and resolves on its own within 7-10 days. **Rare** • Anaphylaxis • Myocarditis (inflammation of the heart) and pericarditis (inflammation of the outer lining of the heart) have been reported with the administration of previous mRNA vaccines. Health Canada monitors for myocarditis and pericarditis following mRNA vaccine administration. • Non-severe allergic reactions (such as rash, itching, hives or swelling of the face), severe allergic reactions, erythema multiforme (red round patches on the skin) and/or facial paralysis / Bell's palsy have been reported with the administration of previous mRNA vaccines. Vaccinated individuals (including parents or caregivers) should be instructed to seek immediate medical attention if they develop symptoms indicative of myocarditis or pericarditis such as (acute and persisting) chest pain, shortness of breath, or palpitations following vaccination.
Special Considerations	• Store frozen between -50°C to -15°C up to expiry date. **Do not store below -50°C.** • Store in original carton to protect from light. **After thawing, do not refreeze.**
Vaccine Components	**To be updated for 2026-27.**

- *Canadian Immunization Guide*: COVID-19 Vaccines: https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-26-covid-19-vaccine.html

Sanofi Pasteur Nuvaxovid® COVID-19 12+ years

Single-dose pre-filled syringe, 5mcg/0.5 mL

Schedule & Dosage	• 0.5 mL Intramuscular injection (IM) only. • Do not inject the vaccine intravascularly, subcutaneously or intradermally. • Refer to the 2026-27 COVID-19 Immunization Schedules.
Contraindications	• **Anaphylaxis to previous dose of mRNA or other COVID-19 vaccine.** • COMIRNATY is contraindicated in individuals who are hypersensitive to the active substance or to any ingredient in the formulation
Precautions	• Refer to the *Canadian Immunization Guide* COVID-19 Vaccine chapter for precautions.
Expected reactions	**Common or very commonly reported local and systemic adverse reactions lasting 2-3 days:** • Pain, warmth, redness and swelling at the injection site and/or limited movement of the immunized arm or leg. • Headache, muscle aches, stiffness, joint pain, fever, chills, rash, fatigue, nausea, vomiting, loss of appetite. **Rare** • Anaphylaxis
	• Non-severe allergic reactions (such as rash, itching, hives or swelling of the face), severe allergic reactions, erythema multiforme (red round patches on the skin) and/or facial paralysis / Bell's palsy have been reported with the administration of previous mRNA vaccines. Vaccinated individuals (including parents or caregivers) should be instructed to seek immediate medical attention if they develop symptoms indicative of myocarditis or pericarditis such as (acute and persisting) chest pain, shortness of breath, or palpitations following vaccination. • Prophylactic oral analgesics or antipyretics (e.g., acetaminophen or ibuprofen) should not be routinely used before or at the time of vaccination, but their use is not a contraindication to vaccination. • Oral analgesics or antipyretics may be considered for the management of adverse events (e.g., pain or fever, respectively), if they occur after vaccination.
Special Considerations	• Store between 2°C to 8°C and keep within the outer carton to protect from light.
Vaccine components	**To be updated for 2026-27.**

- *Canadian Immunization Guide*: COVID-19 Vaccines: https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-26-covid-19-vaccine.html

Pfizer BioNTech Comirnaty® COVID-19 12+ years

Multidose Vial, 30 mcg/0.3 mL

Single-dose pre-filled syringe, 30 mcg/0.3 mL

Schedule & Dosage	• 0.3 mL Intramuscular injection (IM) only. • Do not inject the vaccine intravascularly, subcutaneously or intradermally. • Refer to the 2026-27 COVID-19 Immunization Schedules.
Contraindications	• **Anaphylaxis to previous dose of mRNA or other COVID-19 vaccine.** • COMIRNATY® is contraindicated in individuals who are hypersensitive to the active ingredient or to any ingredients in the formulation, including any non-medicinal ingredient, or component of the container.
Precautions	• Refer to the *Canadian Immunization Guide* COVID-19 Vaccine chapter for precautions.
Expected reactions	**Common or very commonly reported local and systemic adverse reactions lasting 2-3 days:** • Pain, warmth, redness and swelling at the injection site and/or limited movement of the immunized arm or leg. • Swollen and tender lymph nodes in the underarm (resolves in up to 7-10 days). • Headache, muscle aches, stiffness, joint pain, fever, chills, rash, fatigue, nausea, vomiting, loss of appetite. • A local delayed reaction (onset at least 7 days) known as 'COVID arm' is associated with mRNA COVID-19 vaccines and resolves on its own within 7-10 days. **Rare** • Anaphylaxis • Myocarditis (inflammation of the heart) and pericarditis (inflammation of the outer lining of the heart) have been reported with the administration of previous mRNA vaccines. Health Canada monitors for myocarditis and pericarditis following mRNA vaccine administration.
	• Non-severe allergic reactions (such as rash, itching, hives or swelling of the face), severe allergic reactions, erythema multiforme (red round patches on the skin) and/or facial paralysis / Bell's palsy have been reported with the administration of previous mRNA vaccines. Vaccinated individuals (including parents or caregivers) should be instructed to seek immediate medical attention if they develop symptoms indicative of myocarditis or pericarditis such as (acute and persisting) chest pain, shortness of breath, or palpitations following vaccination.
Special Considerations	• **Store multidose vials ultra-frozen at -90°C to -60°C.** • **Do not store vials at -25°C to -15°C.** • Store in original carton to protect from light. **After thawing, do not refreeze.** • **Store pre-filled syringes between +2°C to +8°C.**
Ingredients	**To be updated for 2026-27.**

- *Canadian Immunization Guide*: COVID-19 Vaccines: https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-26-covid-19-vaccine.html

COVID-19 - Non-publicly Funded

mNEXSPIKE®
Moderna product monograph https://labels.modernatx.com/ca/mnexspike

Diphtheria-Tetanus-acellular Pertussis-Polio-*Haemophilus influenzae* type b Adsorbed (DTaP-IPV-Hib)

INFANRIX™-IPV/Hib

Product monograph: https://ca.gsk.com/en-ca/products/infanrix-ipvhib/
)

DOSE / PRIMARY SERIES [1, 2, 5]	**Dose 1**: 0.5 mL IM at 2 months old **Dose 2**: 0.5 mL IM at 4 months old **Dose 3**: 0.5 mL IM at 6 months old **Dose 4**: 0.5 mL IM at 18 months old [3]
REINFORCEMENT [4]	Tdap-IPV at age 4-6 years (school entry)
PRECAUTION	Acellular pertussis-containing vaccines may be administered to clients with the following conditions once a treatment regimen has been established and their condition has stabilized: • Progressive or unstable neurologic disorder (including infantile spasms for DTaP) • Uncontrolled seizures • Progressive encephalopathy
CONTRAINDICATIONS	• History of anaphylactic reaction to a previous dose of DPT, DTaP, IPV or Hib-containing vaccine or to any INFANRIX™-IPV/Hib vaccine component. • History of Guillain-Barré syndrome (GBS) within 6 weeks of receipt of a tetanus-containing vaccine. • Individuals who have experienced other neurological complications following an earlier immunization against diphtheria and/or tetanus. • Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) not attributable to another identifiable cause within 7 days after receiving a dose of a pertussis-containing vaccine.
VACCINE COMPONENTS	Sterile suspension for injection/ not less than 25 limit of flocculation (Lf) [30 International Units (IU)] of diphtheria toxoid; 10 Lf (40 IU) of tetanus toxoid; 25 mc of pertussis toxoid; 25 mcg of filamentous haemagglutinin; 8 mcg of pertactin; 40 D-antigen units (DU) of type 1 poliovirus; 8 DU type 2 poliovirus; 32 DU type 3 poliovirus; 10 mcg of purified polyribosyl-ribitol-phosphate capsular polysaccharide of *Haemophilus Influenzae* type B covalently bound to 25 mcg of tetanus toxoid per 0.5 mL dose. **Clinically Relevant Nonmedicinal Ingredients:** lactose, sodium chloride, aluminum adjuvant (as aluminum salts), Medium 199 (as stabilizer including amino acids, mineral salts and vitamins) and water for injection, residual formaldehyde, polysorbate 80, potassium chloride, disodium phosphate, monopotassium phosphate, glycine and trace amounts of neomycin sulphate and polymyxin B sulphate. Thimerosal and latex-free. The vial is sealed with a butyl rubber stopper. The syringes are fitted with butyl rubber plunger stoppers and tip caps.
EXPECTED REACTIONS	**Local**: Redness, tenderness, and swelling. **Systemic**: Irritability, crying, fever, drowsiness, decreased activity and decreased appetite, vomiting and diarrhea.

Diphtheria-Tetanus-acellular Pertussis-Polio-*Haemophilus influenzae* type b Adsorbed (DTaP-IPV-Hib)

INFANRIX™-IPV/Hib

EFFECTIVENESS	Following administration of the 4th dose in the second year of life, more than 99.5% of infants had tetanus and diphtheria antibody titres of > 0.1 IU/mL. Following administration of the 4th dose in the second year of life, a booster response was seen in 98.6%, 97.6% and 97.9% of vaccinated infants against pertussis antigens. Following administration of the 4th dose in the second year of life, 100% of infants were seroprotected for the three polio serotypes. One month after the 4th dose was administered in the second year of life, a Hib titre of ≥ 0.15 mcg/mL was obtained in 99.7% of all infants, and in > 98.3% of infants, a Hib titre of 1 mcg/mL was reached.

[1] Minimum age is 6 weeks.

[2] If a child's immunization schedule is delayed, the child may require fewer doses of Hib vaccine. Refer to SIM, Chapter 5, *Immunization Schedules* Section 1.2, *Hib Schedule for Children Delayed by 1 Month or More* .

[3] If required, this dose can be given as early as 24 weeks following dose number 3. For protection against Hib, do not give the 4th dose before 12 months of age.

[4] The 5th dose is not necessary if the 4th dose was given after the 4th birthday.

[5] May be administered off label to HSCT and solid organ transplant patients (whose age is beyond the vaccine's licensed age range) to reduce the number of injections they require to meet the antigen requirements as noted in SIM chapter 7 Appendix 7.6, 7.9 or 7.10 immunization schedules.

Diphtheria-Tetanus-acellular Pertussis-Polio-*Haemophilus influenzae* type b Adsorbed (DTaP-IPV-Hib)

PENTACEL®

Product monograph: https://www.sanofi.com/en/canada/your-health/vaccines-products

DOSE / PRIMARY SERIES [1, 2, 5]	**Dose 1**: 0.5 mL IM at 2 months old **Dose 2**: 0.5 mL IM at 4 months old **Dose 3**: 0.5 mL IM at 6 months old **Dose 4**: 0.5 mL IM at 18 months old [3]
REINFORCEMENT [4]	Tdap-IPV at age 4-6 years (school entry)
PRECAUTION	Acellular pertussis-containing vaccines may be administered to clients with the following conditions once a treatment regimen has been established and their condition has stabilized: • Progressive or unstable neurologic disorder (including infantile spasms for DTaP) • Uncontrolled seizures • Progressive encephalopathy
CONTRAINDICATIONS	• History of anaphylactic reaction to a previous dose of DPT, DTaP, IPV or Hib--containing vaccine or to any PENTACEL® vaccine component. • History of Guillain-Barré syndrome (GBS) within 6 weeks of receipt of a tetanus-containing vaccine. • Individuals who have experienced other neurological complications following an earlier immunization against diphtheria and/or tetanus. • Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) not attributable to another identifiable cause within 7 days after receiving a dose of a pertussis-containing vaccine.
VACCINE COMPONENTS	Diphtheria toxoid, tetanus toxoid, acellular pertussis [pertussis toxoid (PT), filamentous haemagglutinin (FHA), pertactin (PRN), fimbriae types 2 and 3 (FIM)], inactivated poliomyelitis vaccine [type 1 (Mahoney), type 2 (MEF1), type 3 (Saukett)], purified polyribosylribitol phosphate capsular polysaccharide (PRP) of *Haemophilus influenzae* type b covalently bound to tetanus protein, water for injection, Tris (hydroxymethyl) aminomethane, sucrose. **Excipients**: aluminum phosphate (adjuvant), 2-phenoxyethanol, polysorbate 80. **Manufacturing process residuals**: formaldehyde, glutaraldehyde, bovine serum albumin, neomycin, polymyxin B, streptomycin sulfate. Latex and thimerosal free.
EXPECTED REACTIONS	**Local**: Redness, tenderness, and swelling. **Systemic**: Irritability, crying, fevers greater than 38.3°C, drowsiness, decreased activity and decreased appetite, vomiting and diarrhea.

Diphtheria-Tetanus-acellular Pertussis-Polio-*Haemophilus influenzae* type b Adsorbed (DTaP-IPV-Hib) **PENTACEL®**	
EFFECTIVENESS	One month after the third and fourth doses, no clinically significant differences were observed between the antibody responses to each of the vaccine antigens in children receiving PEDIACEL®. After the third and fourth doses, at least 97.9% of the PEDIACEL® vaccinees achieved seroprotective levels against Hib disease (anti-PRP antibody ≥ 0.15 mcg/mL), diphtheria (diphtheria antitoxin ≥ 0.01 IU/mL), tetanus (tetanus antitoxin ≥ 0.01 EU/mL) and poliomyelitis types 1, 2, and 3 (poliovirus neutralizing antibody titre ≥ 1:8). Seroconversion rates (≥ 4-fold rise) were high for each of the pertussis antibodies after the primary series. A robust booster response was observed after the fourth dose.

[1] Minimum age is 6 weeks.

[2] If a child's immunization schedule is delayed, the child may require fewer doses of Hib vaccine. Refer to SIM, Chapter 5, *Immunization Schedules* Section 1.2, *Hib Schedule for Children Delayed by 1 Month or More* .

[3] If required, this dose can be given as early as 24 weeks following dose number 3. For protection against Hib, do not give the 4th dose before 12 months of age.

[4] The 5th dose is not necessary if the 4th dose was given after the 4th birthday.

[5] May be administered off label to HSCT and solid organ transplant patients (whose age is beyond the vaccine's licensed age range) to reduce the number of injections they require to meet the antigen requirements as noted in SIM chapter 7 Appendix 7.6, 7.9 or 7. 10 immunization schedules.

Diphtheria-Tetanus-acellular Pertussis-Hepatitis B-Polio-*Haemophilus influenzae* type b Adsorbed (DTaP-HB-IPV-Hib) [Non-publicly funded]

INFANRIX-hexa®
Product monograph: https://ca.gsk.com/en-ca/products/infanrix-hexa/

Refer to Appendix 5.1: DTaP-IPV-Hib and HB Vaccine Schedule for Children who have previously Received DTaP-HB-IPV-Hib (INFANRIX hexa®) Vaccine Doses for immunization directives.

Ebola Zaire (EZV) (rVSVΔG-ZEBOV-GP, live)
[not publicly funded]

ERVEBO®
Merck product monograph: https://www.merck.ca/en/wp-content/uploads/sites/20/2022/11/ERVEBO-PM_E.pdf

Haemophilus influenzae type b Conjugate (Hib)

Act-HIB®

Product monograph: https://www.sanofi.com/en/canada/your-health/vaccines-products

INDICATIONS and DOSE / SERIES [1]	
1. As a component of DTaP-IPV-Hib 0.5 mL IM for children at 2, 4, 6, and 18 months of age [2]**.** **2. Children 2-59 months of age who are delayed by 1 month or more** [3] **3. People 5 years and older with the following medical conditions regardless of Hib immunization or Hib disease history:** [4] Anatomic or functional asplenia Including (sickle cell disease) [5, 7]; HIV [7]; immunosuppression related to disease [7] (e.g., congenital immunodeficiency states such as complement, properidin or factor D deficiency; malignant neoplasm including leukemia and lymphoma;) or therapy [7]; candidates or recipients of solid organ or islet cell transplants [7], or cochlear implants [7]. **4. Haematopoietic stem cell transplant (HSCT) recipient** [6]	
CONTRAINDICATIONS	History of anaphylactic reaction to a previous dose of a Hib-containing vaccine or to any component of Act-HIB®.
VACCINE COMPONENTS	Purified Polyribosylribitol Phosphate Capsular Polysaccharide (PRP) of *Haemophilus influenzae* type b covalently bound to 18-30 mcg of Tetanus Protein 10 mcg. **Excipients**: Tris (hydroxymethyl) aminomethane, sucrose, sodium chloride. Thimerosal free. The stoppers of the vials containing Act-HIB® and the diluent (0.4% saline) do not contain latex (natural rubber).
EXPECTED REACTIONS	**Local**: redness, tenderness, swelling, pain. **Systemic:** fever more than 38.3°C, fussiness, irritability, lethargy, loss of appetite.
EFFECTIVENESS	After 4 doses, 99% of children maintained high antibody levels at age 4-5 years.

[1] Minimum age is 6 weeks old.

[2] The 18-month reinforcement dose may be given at 12 months if there is an 8-week interval following the previous dose.

[3] Refer to SIM, Chapter 5 *Immunization Schedules,* section 1.2 *Hib Schedule for Children Delayed by 1 Month or More.*

[4] **Provide at least 1 year after a previous Hib dose** (CIG). Refer to SIM, Chapter 7, *Immunization of Special Populations* for more information on specific conditions.

[5] Give vaccine at least 14 days prior to elective splenectomy, or if impossible, 14 days or more days post-splenectomy. If there is concern that the client may not present later for immunization, give vaccine before discharge.

[6] Refer to SIM, Chapter 7, *Immunization of Special Populations,* Section 3.6 *Transplant Recipient - Haematopoietic Stem Cell Transplant.*

[7] At least 1 year after any previous dose.

Publicly Funded Hepatitis A (HA) Vaccine Indications [3] *

- People born since January 1, 1982, who: live in any SK First Nations community; live in the Athabasca Health Authority; or live in a non-First Nations community in Northern SK (former Mamawetan Churchill River and Keewatin Yatthé health regions excluding Creighton, Air Ronge and La Ronge).
- Men who have sex with men.
- Individuals that use or share illicit drug snorting, smoking or injection equipment.
- Sexual partners and household contacts 6 months and older of individuals who use illicit drugs.
- Post-exposure prophylaxis of case contacts 6 months and older with one dose as outlined in the Saskatchewan Communicable Disease Control Manual.[1]
- Non-immune individuals 6 months and older with bleeding disorders and others who receive repeated infusions of blood or blood products or plasma-derived replacement clotting factors.
- Individuals 6 months and older who have liver disease (e.g., alcoholism, hepatitis C, hepatitis B, cirrhosis) who are non-immune to HA.
- Liver transplant candidates or recipients 6 months and older.
- Haematopoietic stem cell transplant (HSCT) recipients 6 months and older.

HA vaccine recommended for but not provided free: [2]

- Travellers to countries with endemic hepatitis A.
- Food handlers.
- Residents in certain institutions, such as correctional facilities and those for developmentally challenged individuals.
- Residents in communities in rural or remote areas lacking adequate sanitation or a secure supply of potable water.

[1] If a client received 1 dose of a HA-containing vaccine more than 6 months previously, provide a second dose of HA vaccine.

[2] These individuals should be referred to a travel clinic, family physician, nurse practitioner or pharmacist to receive non-publicly funded vaccine.

[3] CIG Hepatitis A chapter https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-6-hepatitis-a-vaccine.html).

* Previously, HIV positive individuals were deemed eligible to receive HA vaccine based on this diagnosis. If such an individual had started a HA series, the series may be completed.

Hepatitis A (HA) (inactivated viral)

AVAXIM® / AVAXIM® - Pediatric

Product monograph available at: https://www.sanofi.com/en/canada/your-health/vaccines-products

INDICATIONS	**Refer to publicly funded HA vaccine indications**
DOSE [1] / SERIES NOTE: Either vaccine may be used for persons between 12 to 15 years of age.	**Children 6 months up to and including 15 years of age:** (In SK, AVAXIM Pediatric may be provided off label to those 6-11 months). **Dose 1**: AVAXIM® - Pediatric 0.5 mL IM **Dose 2**: AVAXIM® - Pediatric 0.5 mL IM 6-36 months after dose
	Persons 12 years and older: **Dose 1**: AVAXIM® 0.5 mL IM **Dose 2**: AVAXIM® 0.5 mL IM 6-36 months after dose
REINFORCEMENT	Currently no recommendations.
CONTRAINDICATIONS	History of an anaphylactic reaction to a previous dose of any HA vaccine or to any AVAXIM® vaccine components.
VACCINE COMPONENTS	Inactivated hepatitis A virus, (GBM strain, Phenoxyethanol-Ethanol (50% v/v solution) with 2 phenoxyethanol (2.5 µL) and ethanol anhydrous (2.5 µL); Formaldehyde (12.5 mcg); Aluminum hydroxide, hydrated (expressed as aluminum 0.3 mg); 1 x C Medium 199 Hanks (up to 0.5 mL). 1 x C Medium 199 Hanks (without phenol red) is a complex mixture of amino acids (including phenylalanine), mineral salts, vitamins and other components supplemented with polysorbate 80 and is reconstituted in water for injection. Hydrochloric acid and or sodium hydroxide can be used for pH adjustment; these components are only present in trace amounts. Neomycin is also present in trace amounts Latex and thimerosal free.
EXPECTED REACTIONS	Tend to be mild and transient. **Local:** Pain, swelling, redness at injection site. **Systemic:** Weakness, myalgia/arthralgia, headache, gastrointestinal symptoms and mild fever.
EFFECTIVENESS	In clinical studies involving over 1,000 volunteers, specific humoral antibodies against hepatitis A were elicited after the first injection and more than 90% of immunocompetent subjects were protected (titres above 20 mIU/mL) 14 days after vaccination. One month after the first injection, 100% of the subjects were protected. Immunity persisted for at least 36 months and was reinforced after a first booster dose.

[1] HA vaccines are interchangeable for any scheduled dose for children and adults, using the age-specific dosage for the particular product.

Hepatitis A (HA) (inactivated viral)

HAVRIX® (for Havrix® 1440 and Havrix® 720 Junior)

Product monograph available at: https://ca.gsk.com/en-ca/products/havrix/

INDICATIONS	**Refer to publicly funded HA vaccine indications**
DOSE / SERIES [1]	**Children 6 months up to and including 18 years of age:** (In SK, HAVRIX 720 may be provided off label to those 6-11 months). **USE HAVRIX® pediatric presentation of 720 ELU per 0.5 mL** **Dose 1**: 0.5 mL IM **Dose 2**: 0.5 mL IM 6-12 months after dose 1
	Adults 19 years and older: (In SK, HAVRIX 1440 may be provided off-label to those 18 years old if another adult HA vaccine brand is unavailable). • **USE HAVRIX® adult presentation of 1440 ELU per 1 mL** **Dose 1**: 1 mL IM **Dose 2**: 1 mL IM 6-12 months after dose 1 [2]
REINFORCEMENT	Currently no recommendations.
CONTRAINDICATIONS	History of an anaphylactic reaction to a previous dose of any HA vaccine, or to any HAVRIX® vaccine components.
VACCINE COMPONENTS	HAVRIX 1440 contains: 1440 ELISA units per 1 mL of formaldehyde-inactivated hepatitis A virus (HM175 hepatitis A virus strain); HAVRIX 720 Junior contains: 720 ELISA units per 0.5 mL of formaldehyde-inactivated hepatitis A virus (HM175 hepatitis A virus strain). The virus is adsorbed on aluminium (0.5 mg/1 mL adult dose, 0.25 mg/0.5 mL pediatric dose) in the form of aluminium hydroxide. Excipients: aluminium (as aluminium hydroxide), amino acids for injection, disodium phosphate, monopotassium phosphate, polysorbate 20, potassium chloride, sodium chloride, water for injection. Residue from the manufacturing process: neomycin sulphate (less than 10 ng for HAVRIX 720 Junior; less than 20 ng for HAVRIX 1440). Thimerosal and latex free.
EXPECTED REACTIONS	Tend to be mild and transient. **Local:** Soreness, swelling and redness at injection site. **Systemic:** Headache, fatigue, fever, malaise, and gastrointestinal symptoms.
EFFECTIVENESS	Protective serum antibody levels in 95-100% of people within 4 weeks of immunization.

[1] HA vaccines are interchangeable for any scheduled dose for children and adults, using the age-specific dosage for the particular product.

[2] In SK, all eligible adult recipients must receive 1440 ELU for each publicly funded dose, even though studies show that 720 ELISA units may provide an effective 2nd HA dose in adults.

Hepatitis A (HA)
(purified inactivated viral)

VAQTA®

Product monograph available at https://www.merck.ca/en/wp-content/uploads/sites/20/2021/04/VAQTA-PM_E.pdf

INDICATIONS	**Refer to publicly funded HA vaccine indications**
DOSE / SERIES [1]	**Eligible children 6 months up to and including 17 years**: (In SK, VAQTA Pediatric may be provided off label to those 6-11 months). • **USE VAQTA® pediatric presentation of 25U per 0.5 mL** **Dose 1**: 0.5 mL IM **Dose 2**: 0.5 mL IM 6-12 months after dose 1
	Eligible adults 18 years and older: • **USE VAQTA® adult presentation of 50U per 1 mL** **Dose 1**: 1 mL IM **Dose 2**: 1 mL IM 6-12 months after dose 1
REINFORCEMENT	Currently no recommendations.
CONTRAINDICATIONS	History of an anaphylactic reaction to a previous dose of any HA vaccine, to any VAQTA® vaccine components, or to latex (vials).
VACCINE COMPONENTS	Hepatitis A virus protein, aluminum (as amorphous aluminum hydroxyphosphate sulfate), sodium borate, sodium chloride, water for injection. **Manufacturing process residuals:** Within the limits of current assay variability, the 50 unit (1 mL) dose of VAQTA® contains less than 0.1 mcg (less than 100 ng) of non-viral protein, less than 4 x 10-6 mcg (less than 0.004 ng) of DNA, less than 10-4 mcg (less than 0.1 ng) of bovine albumin, less than 0.8 mcg (less than 800 ng) of formaldehyde and a trace of neomycin [≤ 0.002 mcg (≤ 2 ng)]. Other process chemical residuals are less than 10 parts per billion (ppb). VAQTA® meets the World Health Organization requirement for biological substances including those for final vaccine residual bovine serum albumin. The vial stopper contains latex.
EXPECTED REACTIONS	**Local:** Soreness, swelling and redness at injection site. **Systemic:** Headache, fatigue, fever, malaise, and gastrointestinal symptoms.
EFFECTIVENESS	Protective serum antibody levels in 95-100% of people within 4 weeks of immunization.

[1] HA vaccines are interchangeable for any scheduled dose for children and adults, using the age-specific dosage for the particular product.

Hepatitis A and B (combined) (HAHB)

[Not publicly funded]

TWINRIX® and TWINRIX® Junior

Product monograph available at https://ca.gsk.com/en-ca/products/twinrix/

Adult presents with history of:	**HA completion** [1]	**HB completion** [2]
1 dose HAHB 1.0 ml	2 doses of HA adult	2 doses of HB 1.0 ml
2 doses HAHB 1.0 ml	1 dose of HA adult	1 dose of HB 1.0 ml
Child or adolescent presents with history of:	**HA completion** [1]	**HB completion** [2]
1 dose of HAHB 0.5 ml	2 doses of HA pediatric	2 doses of 0.5 ml HB
1 dose of HAHB 1.0 ml	1 dose of HA pediatric	**6 mo. – 10 years:** 2 doses of HB 0.5 ml **11 – 15 years**: 1 dose of HB 1.0 ml **16 – 19 years**: 2 doses of HB 0.5 ml
2 doses of HAHB 0.5 ml	1 dose of HA pediatric	1 dose of HB 0.5 ml
2 doses of HAHB 1.0 ml [3]	Complete	Complete

[1] See SIM chapter 10 biologics page Hepatitis A for appropriate dosing and scheduling for age.
[2] See SIM chapter 10 biologics page Hepatitis B for appropriate dosing and scheduling for age.
[3] Two doses of HAHB adult 1.0 mL given 24 weeks apart for age 6 months up to including age 15 years is considered a complete series.

Publicly Funded Hepatitis B (HB) Vaccine Indications [1, 4]

Routine	• Those born since January 1, 1984 • Grade 6 students • Those who started a publicly funded series in another Canadian jurisdiction
Occupation	• AHA/SHA/SCA/FNJ Healthcare workers (refer to SIM Chapter 7 section 6.2) • Healthcare students as noted in SIM Ch. 7 section 6.3
Medical & post-exposure risk factors	• Non-immune individuals with bleeding disorders and others who receive repeated infusions of blood or blood products or plasma-derived replacement clotting factors • Individuals with congenital immunodeficiencies [3] • Individuals who are HIV positive who are non-immune to HB [3] • Individuals who have liver disease (e.g., alcoholism, hepatitis C, cirrhosis) who are non-immune to HB • Individuals with renal disease (predialysis, hemodialysis & peritoneal dialysis) who are non-immune to HB [3] • Liver or kidney transplant candidates or recipients who are non-immune to HB [2] • Haematopoietic stem cell transplant (HSCT) recipients [2] • Infant born to a HBsAg+ mother or high-risk mother whose HB status at delivery is unknown and STAT test results cannot be obtained within 12 hours after delivery [5, 7] • Percutaneous (e.g., needle stick, bite) or mucosal exposure (e.g., sexual assault) [4, 6, 7]
At risk of ongoing exposure	• Household/sexual/close contacts of individuals who have an acute or chronic HB infection, including children in a childcare setting in which there is an HB infected individual 6 • Individuals with multiple sexual partners • Men who have sex with men • Individuals that use or share illicit drug snorting, smoking or injection equipment • Sexual partners and household contacts of individuals who use illicit drugs • Group home residents • Provincial correctional facility residents
At risk of endemic exposure	• Children of immigrants to Canada from regions with HB prevalence of 2% and higher. Refer to: HB Immunization Eligibility for Children of Families from Countries with Moderate or High (≥ 2%) HB Prevalence in SIM Ch. 10 • Refer to SIM Ch. 10 *Risk Based HB Revaccination Assessment Algorithm* for additional recommendations
Not publicly funded [8]	• Travellers to countries with endemic HB • Non-healthcare workers who have an occupational risk of exposure

[1] Most SK residents born since 1984 would have received routine HB vaccine in Grade 6. If records are unavailable and the client does not recall receiving HB series, proceed with HB vaccine as per indication.
[2] Refer SIM, Chapter 7, *Immunization of Special Populations* for specific medical conditions.
[3]. Refer SIM, Chapter 7, *Immunization of Special Populations,* Appendix 7.4: *High Dose Hepatitis B Immunization Algorithm.*
[4] Refer to *Guidelines for the Management of Exposures to Blood and Body Fluids* recommendations.
[5] Refer to SIM, *Chapter 7, Immunization of Special Populations, Section 4.2.1, Hepatitis B Infant Immunoprophylaxis Protocol.*
[6] Must present within 14 days of sexual assault.
[7] Post-vaccination testing should be performed no sooner than 1 month after completion of HB vaccine series.
[8] These individuals should be referred to a travel clinic, family physician, nurse practitioner or pharmacist to receive non-publicly funded vaccine.

HB Immunization Eligibility for Children of Families from Countries with Moderate or High (≥ 2%) HB Prevalence

- Children whose families originated or immigrated from countries **other than the countries listed below** are eligible to be immunized with publicly funded HB vaccine prior to Grade 6/11 years of age.
- Apply the Panorama risk factor 'Children of Immigrants – HB'.

Countries with low (< 2%) HB prevalence

Afghanistan	Chile	Grenada	Montserrat	Scotland
Algeria	Colombia	Grenadines	Montenegro	Serbia
Andorra	Costa Rica	Guam	Morocco	Slovakia
Anguilla	Croatia	Guatemala	Nepal	Slovenia
Antigua & Barbuda	Cuba	Haiti	Netherlands	Spain
Argentina	Curacao	Honduras	Netherlands Antilles	Sri Lanka
Armenia	Cyprus	Hungary	New Zealand	Saint Croix (USVI)
Aruba	Czechia	Iceland	Nicaragua	Saint Kitts & Nevis
Australia	Denmark	Iran	Niue	Saint John (USVI)
Austria	Dominica	Ireland	North Macedonia	Saint Lucia
Azerbaijan	Dominican Republic	Israel	Northern Ireland	Saint Thomas (USVI)
Bahamas	Ecuador	Italy	Norway	Saint Vincent
Bahrain	Egypt	Japan	Oman	Suriname
Barbados	El Salvador	Jordan	Pakistan	Sweden
Belarus	England	Kosovo	Palestine	Switzerland
Belgium	Estonia	Kuwait	Panama	Thailand
Belize	Falkland Islands	Kyrgyzstan	Paraguay	Trinidad & Tobago
Bermuda	Fiji	Lebanon	Peru	Turks & Caicos
Bhutan	Finland	Libya	Poland	Ukraine
Bolivia	France	Liechtenstein	Portugal	United Arab Emirates
Brazil	French Polynesia	Lithuania	Puerto Rico	United States
British Virgin Islands	Georgia	Luxemburg	Qatar	Uzbekistan
Brunei	Germany	Malta	Russia	Venezuela
Burundi	Greece	Mexico	San Marino	Zambia
Cayman Islands	Greenland	Monaco	Saudi Arabia	

Sources: The CDA Foundation: https://cdafound.org/polaris/database-query/. The WHO: Viral hepatis country profiles.

HB Recommendations for Healthcare Workers & Students

Scenario 1: Has no documented completed age and interval appropriate HB series (incomplete series or no doses) AND no documented serology

1. **Do not do serology** prior to starting/resuming **or** during the HB series.
2. Provide and complete an appropriately spaced HB vaccines series (0, 1, 6 months).
    a. Refer individuals with risk factors noted in SIM Chapter 7 App. 7.4 (e.g., renal disease, immunocompromised) to Public Health for high dose HB series.
3. Test anti-HBs, HBsAg and Anti-HBc at least 4 weeks after the last dose.
4. Refer to Scenario 6 if anti-HBs is less than 10 IU/L.

Scenario 2: HB immunity from natural infection

A. Has documented serology results: HBsAg negative, anti-HBc positive and anti-HBs positive OR negative.
B. Document as immune. Future immunization or serology is not required, even upon potential HB exposure, **UNLESS** the individual becomes immunocompromised.

Scenario 3: HB immunity from immunization

1. Has documented completed and appropriately spaced HB series for age at immunization.
2. Has documented anti-HBs equal to/greater than 10 IU/L when done at least 4 weeks after last dose.
3. Document as immune. Further serology and immunization are not required, even upon potential HB exposure **UNLESS** they become immunocompromised (T-cells retain long-term memory and B-cells will activate upon HB exposure).

Scenario 4: Has documentation of a completed age and interval appropriate HB series BUT no documented serology

1. Test for anti-HBs, HBsAg and Anti-HBc at least 4 weeks after the last dose.
2. Refer to Scenario 6 if anti-HBs is less than 10 IU/L.

Scenario 5: Has no documented completed age and interval appropriate HB series (incomplete or no doses) AND has documented anti-HBsAb equal to/greater than 10IU/L.

1. Provide and/or complete an appropriately spaced HB vaccines series (0, 1, 6 months)
    a. Refer individuals with risk factors noted in SIM Chapter 7 App. 7.4 (e.g., renal disease, immunocompromised) to Public Health for high dose HB series.
2. Test anti-HBs, HBsAg and Anti-HBc at least 4 weeks after the last dose in the series.
3. Refer to Scenario 6 if anti-HBs is less than 10 IU/L.

Scenario 6: Anti-HBs is less than 10 IU/mL when done at least 4 weeks after completing the first HB series

a. **If anti-HBs is detectable between 2 and 9.9 IU/L:**
    i. Provide 1 HB vaccine dose and retest anti-HBs at least 4 weeks later.
        - If anti-HBs is equal to/greater than 10 IU/L, they are immune.
        - If anti-HBs remains less than 10 IU/L, complete the second HB vaccine series and retest anti-HBs at least 4 weeks after the last dose.
        - Refer to Scenario 7 if Anti-HBs remains less than 10 IU/L.

b. **If anti-HBs is undetectable at less than 2 IU/L:**
    - Provide a second HB vaccine series (**do not** do any serology during the second HB series) and retest anti-HBs at least 4 weeks after the last dose.
    - Refer to Scenario 7 if anti-HBs remains less than 10 IU/L

Scenario 7: Anti-HBs remains less than 10 IU/L when done at least 4 weeks after completing the second HB series

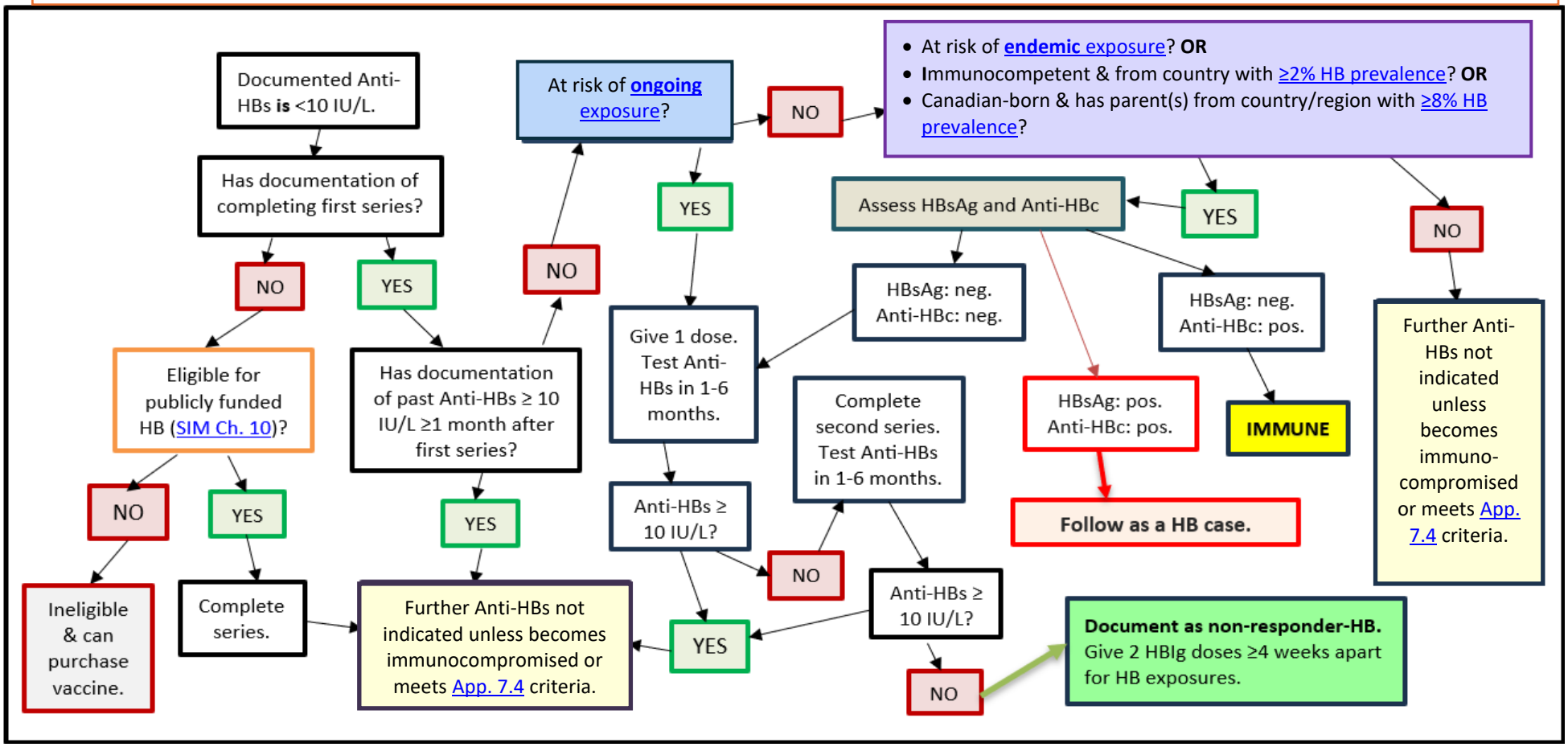
1. The individual is considered non-responder and susceptible to HB.
2. Document as a non-responder.
3. Provide HBIg after a HB exposure.
4. The individual's primary care provide should order HBsAg and total anti-HBc tests to determine their HBV infection status or immunologic issues.

References: https://www.immunize.org/ask-experts/?q=HB+series+completion; Hepatitis B Chapter, SK CDC Manual

Risk-Based Hepatitis B Re-Vaccination Assessment Algorithm

This risk-based algorithm provides guidance to determine if an individual is eligible to receive *publicly funded HB vaccine* when tested **FOR NO SPECIFIC REASON** and their documented Anti-HBs <10 IU/L. **This algorithm does not supersede testing for HB markers for:**

- Clinical HB investigations.
- Individuals who are immunocompromised or have other medical risk factors noted in SIM Ch. 7.
- HB post-exposure management in the Guidelines for Exposures to Blood and Body Fluids.
- SIM Ch. 7 Appendix 7.4: High Dose Hepatitis B Immunization Algorithm.
- SIM Ch. 10 HB Recommendations for Healthcare Workers & Students.



HB Series Completion Recommendations for Children 11-15 Years Old

If a student has an incomplete HAHB or HB series:

1. The PHN should recommend completion of the original HAHB series [1].
2. If parent wishes to complete HB only, follow these Saskatchewan Committee on Immunization's (SCOI) recommendations for the appropriate scenario [2].
3. Applies to students in Grade 6 who are younger than 11 years old.

#	Historical (Valid) Dose(s) & Vaccine(s) [3]	Dosing Recommendations / Comments
1	1) HAHB 0.5 ml at ≥ 6 months old	2) HB 0.5 ml min. 4 weeks later; then 3) HB 0.5 ml min. 8 weeks later from 2nd HB. There must be min. 16 weeks between 1st HB **&** 3rd HB.
2	1) HAHB 0.5 ml at ≥ 6 months old 2) HAHB 0.5 ml min. 4 weeks later	3) HB 0.5 ml min. 8 weeks later from 2nd HAHB. There must be min. 16 weeks between 1st HAHB **&** 3rd HB.
3	1) HAHB 0.5 ml at ≥ 6 months old 2) HAHB 1 ml min. 4 weeks later	3) HB 0.5 ml min. 8 weeks later from 2nd HAHB. There must be min. 16 weeks between 1st HAHB & 3rd HB.
4	1) HAHB 0.5 ml at ≥ 6 months old 2) HB 0.5 ml min. 4 weeks later	3) HB 0.5 ml min. 8 weeks later from 2nd HB. There must be min. 16 weeks between 1st HAHB **&** 3rd HB.
5	1) HAHB 0.5 ml at ≥ 6 months old 2) HB 1 ml min. 4 weeks later	3) HB 0.5 ml min. 8 weeks later from 2nd HB. There must be min. 16 weeks between 1st HAHB **&** 3rd HB.
6	1) HAHB 1 ml at ≥ 6 months old	2) HB 1.0 ml ≥ 24 weeks (min. 16 weeks) later.
7	1) HAHB 1 ml at ≥ 6 months old 2) HB 0.5 ml min. 4 weeks later	3) HB 0.5 ml min. 8 weeks later from 2nd HB. There must be min. 16 weeks between 1st HAHB **&** 3rd HB.
8	1) HAHB 1 ml at ≥ 6 months old 2) HB 1 ml min. 4 weeks later but less than 16 weeks	3) HB 0.5 ml min. 8 weeks later from 2nd HB. There must be min. 16 weeks between 1st HAHB **&** 3rd HB.
9	1) HB 0.5 ml at any age 2) HAHB 0.5 ml at ≥ 6 months old, min. 4 weeks later	3) HB 0.5 ml min. 8 weeks later from 2nd HAHB. There must be min. 16 weeks between 1st HB **&** 3rd HB.
10	1) HB 0.5 ml at any age 2) HAHB 1 ml at ≥ 6 months old, min. 4 weeks later	3) HB 0.5 ml min. 8 weeks later from 2nd HAHB. There must be min. 16 weeks between 1st HB **&** 3rd HB.
11	1) HB 1 ml at any age 2) HAHB 0.5 ml at ≥ 6 months old, min. 4 weeks later but less than 16 weeks	3) HB 0.5 ml min. 8 weeks later from 2nd HB. There must be min. 16 weeks between 1st HB **&** 3rd HB.
12	1) HB 1 ml at any age 2) HAHB 1 ml at ≥ 6 months old, min. 24 weeks later	Considered complete (CIG HB Table 3).
13	1) HAHB 1 ml at ≥ 6 months old 2) HB 1 ml min. 24 weeks later	Considered complete (CIG HB Table 3).
14	1) HAHB 1 ml at ≥6 months old 2) HAHB 1 ml min. 24 weeks later	Considered complete (CIG HB Table 3).

[1] If completing with HAHB, document HB refusal. Document in the Comments section of the consent directives: "Parent intends to complete HAHB to complete series."

[2] Document consent grant.

[3] DTaP-HB-IPV-Hib doses are equivalent to HB 0.5 mL pediatric vaccine doses.

HB Completion Scenarios (excluding children 11-15 years old)

- If a client was immunized by **Public Health in Saskatchewan**, SIM chapter 1, *Appendix 5.1 School Immunization Programs* **may be** consulted to determine the HB series the client was eligible for.
- If a client's documented immunization record does not show the HB-containing vaccine volumes **and** the client **was not immunized by Public Health in Saskatchewan** for previous doses in which a minimum 3-dose series has not been completed, it is recommended that:
  - 0.5 mL HB doses are administered to clients younger than 20 years of age at appropriate intervals to complete a 3-dose series.
  - 1 mL HB doses are administered to clients 20 years of age and older at appropriate intervals to complete a 3-dose series.
- **PHNs are to consult their regional MHO for case-by-case determination** before contacting the Ministry.

Scenario A: Client originally started on a 2-dose series when 11-15 years (or at 10 years old and in Grade 6):

#1 Q – A client between 16-19 years of age needs to complete the HB series. They received their first dose (1 mL) of a 2-dose series in Grade 6, when they were between 11-15 years of age. How should their series be completed?
#1 A – If the minimum interval of 4 weeks has passed since the first dose, and based on their age at this presentation, their schedule is complete when the get:

- A 2nd dose of 0.5 mL IM HB vaccine then;
- A 3rd dose of 0.5 mL IM HB vaccine 8 weeks after the second dose and at least 16 weeks after dose 1.

#2 Q – A client aged ≥ 20 years needs to complete the HB series. They received their first dose (1 mL) of a 2-dose series in Grade 6, when they were between 11-15 years of age. How should their series be completed?
#2 A – If the minimum interval of 4 weeks has passed since the first dose, and based on their age at this presentation, their schedule is complete when the get:

- A 2nd dose of 1 mL IM HB vaccine then;
- A 3rd dose of 1 mL IM HB vaccine 8 weeks after the second dose and at least 16 weeks after dose 1.

Scenario B: Client originally started on a 3-dose series of 0.5 mL

#3 Q – A client received their first and/or second dose(s) of 0.5 mL between 0-19 years and presents between ages 0-19. How should the series be completed?
#3 A – Complete the series with 0.5 mL IM for each outstanding dose.

- A 2nd dose of 0.5 mL IM HB vaccine 4 weeks later (if required) then;
- A 3rd dose of 0.5 mL IM HB vaccine 8 weeks after the second dose and at least 16 weeks after dose 1.

#4 Q – If client received first and/or second dose of 0.5 mL dose between 0-19 years and presents ≥ age 20 years or older. How should their series be completed?
#4 A – Complete the series with 1 mL IM for each outstanding dose.

- A 2nd dose of 1 mL IM HB vaccine 4 weeks later (if required) then;
- A 3rd dose of 1 mL IM HB vaccine 8 weeks after the second dose and at least 16 weeks after dose 1.

Hepatitis B (HB) (recombinant viral)

ENGERIX®-B

Product monograph available at https://ca.gsk.com/en-ca/products/engerix-b/

INDICATIONS	Refer to publicly funded HB vaccine indications
DOSE / SERIES [1, 2, 3, 4] **NOTE: Accelerated and Rapid vaccination schedules noted in the product monograph should not be administered for publicly funded indications.**	**Children from birth up to and including 19 years old:** • **USE ENGERIX-B pediatric formulation 10 mcg per 0.5 mL** 0.5 ml IM (10 mcg) at 0, 1 and 6 months[5] or refer to minimum intervals in Ch. 5.
	2-dose regimen for adolescents 11 to 15 years of age (including Grade 6 students younger than 11 years old): • **USE ENGERIX-B adult formulation 20 mcg per 1 mL** **Dose 1**: 1 mL (20 mcg) IM **Dose 2**: 1 mL (20 mcg) IM 6 months after dose 1
	Eligible adults 20 years and older: • **USE ENGERIX-B adult formulation 20 mcg per 1 mL** 1 ml (20 mcg) IM at 0, 1 and 6 months
	Those with renal disease, HIV and Congenital Immunodeficiency Disorder [3] Refer to SIM, Chapter 7, *Appendix 7.4 High Dose Hepatitis B Immunization Algorithm*
REINFORCEMENT	Currently no recommendations.
CONTRAINDICATIONS	History of anaphylactic reaction to a previous dose of any hepatitis B vaccine or to any component of Engerix-B.
VACCINE COMPONENTS	Each 1.0 mL adolescent/adult dose of vaccine contains 20 mcg of hepatitis B surface antigen adsorbed onto 0.5 mg of Al3+ as aluminum hydroxide. Each 0.5 mL pediatric dose contains 10 mcg of hepatitis B surface antigen adsorbed onto 0.25 mg of Al3+ as aluminum hydroxide. Aluminium (as aluminium hydroxide), disodium phosphate dihydrate, sodium chloride, sodium dihydrogen phosphate dihydrate, and water for injection. Preservative, thimerosal and latex free. Rubber stoppers.
EXPECTED REACTIONS	**Local:** Soreness, swelling and redness at injection site. **Systemic:** Headache, fatigue, fever, nausea and malaise.
EFFECTIVENESS	50-99% response-varies with age and immunocompetence.

[1] Engerix®-B & Recombivax HB® are interchangeable at any dose, using age-specific dosage and recommended schedule for the particular product.

[2] Refer to SIM, Chapter 5, *Immunization Schedules,* Section 2.1, *Minimum Intervals for Specific Vaccine Series* for minimum interval scheduling.

[3] Those with renal disease, HIV and Congenital Immunodeficiency Disorder require a specific HB vaccine dosage and series; refer to SIM, Chapter 7, *Appendix 7.4 High Dose Hepatitis B Immunization Algorithm.*

[4] High risk infants less than 2000 g require 4 dose series. Refer to SIM, Chapter 7, *Immunization of Special Populations,* Section 4.2.1, *Hepatitis B Infant Immunoprophylaxis Protocol.*

[5] Infant must be at least 24 weeks of age to receive 3rd dose.

- If a client was immunized by Public Health in Saskatchewan, SIM Chapter 1, Appendix 5.1 School Immunization Programs may be consulted to determine the HB series the client was eligible for.
- If a client's documented immunization record does not show the HB-containing vaccine volumes and the client was not immunized by Public Health in Saskatchewan for previous doses in which a minimum 3-dose series has not been completed, it is recommended that:
  - 0.5 mL HB doses are administered to clients younger than 20 years of age at appropriate intervals to complete a 3-dose series.
  - 1 mL HB doses are administered to clients 20 years of age and older at appropriate intervals to complete a 3-dose series.
  - PHNs are to consult their regional MHO for case-by-case determination before contacting the Ministry.

Hepatitis B (recombinant)

RECOMBIVAX HB®

Product monograph available at: https://www.merck.ca/en/wp-content/uploads/sites/20/2021/04/RECOMBIVAX_HB-PM_E.pdf

INDICATIONS	Refer to publicly funded HB vaccine indications
DOSE / SERIES [1, 2, 3, 4]	**Eligible children from birth up to and including 19 years:** • **USE RECOMBIVAX® HB pediatric formulation 5 mcg per 0.5 mL** 0.5 ml IM (5 mcg) at 0, 1 and 6 months[5] or refer to minimum intervals in Ch. 5.
	2-dose regimen for adolescents 11 to 15 years of age (including Grade 6 students younger than 11 years old): • **USE RECOMBIVAX ® HB adult formulation 10 mcg per 1 mL** **Dose 1**: 1 mL (10 mcg) IM **Dose 2**: 1 mL (10 mcg) IM 6 months after dose 1
	Eligible adults 20 years and older: • **USE RECOMBIVAX ® HB adult formulation 10 mcg per 1 mL** 1 mL (10 mcg) IM at 0, 1 and 6 months
	Those with renal disease, HIV and Congenital Immunodeficiency Disorder [3] Refer to SIM, Chapter 7, *Appendix 7.4 High Dose Hepatitis B Immunization Algorithm*
REINFORCEMENT	Currently no recommendations.
CONTRAINDICATIONS	History of anaphylactic reaction to a previous dose of any hepatitis B vaccine or to any component of RECOMBIVAX® HB.
PRECAUTION	Use caution when vaccinating latex-sensitive individuals since the vial stopper contains dry natural latex rubber that may cause allergic reactions.
VACCINE COMPONENTS	Hepatitis B surface antigen. **Excipients:** Aluminum (as amorphous aluminum hydroxyphosphate), sodium chloride, sodium borate, water for injection. **Manufacturing Process Residuals**: Each dose contains less than 1% yeast protein. The vaccine also contains < 15 mcg/mL formaldehyde as all preparations have been treated with formaldehyde prior to adsorption onto amorphous aluminum hydroxyphosphate. Thimerosal free.
EXPECTED REACTIONS	**Local:** Soreness, swelling and redness at injection site. **Systemic**: Headache, fatigue, fever, nausea and malaise.
EFFECTIVENESS	50-99% response-varies with age and immunocompetence.

[1] Engerix®-B & RECOMBIVAX HB® are interchangeable at any dose, using age-specific dosage and recommended schedule for the particular product.

[2] Refer to SIM, Chapter 5, *Immunization Schedules,* Section 2.1, *Minimum Intervals for Specific Vaccine Series* for minimum interval scheduling.

[3] Those with renal disease, HIV and Congenital Immunodeficiency Disorder require a specific HB vaccine dosage and series; refer to SIM, Chapter 7, *Appendix 7.4 High Dose Hepatitis B Immunization Algorithm*.

[4] High risk infants less than 2000 g require 4 dose series. Refer to SIM, Chapter 7, *Immunization of Special Populations,* Section 4.2.1, *Hepatitis B Infant Immunoprophylaxis Protocol*.

[5] Infant must be at least 24 weeks of age to receive 3rd dose.

- If a client was immunized by **Public Health in Saskatchewan**, SIM Chapter 1, *Appendix 5.1 School Immunization Programs* **may be** consulted to determine the HB series the client was eligible for.
- If a client's documented immunization record does not show the HB-containing vaccine volumes **and** the client **was not immunized by Public Health in Saskatchewan** for previous doses in which a minimum 3-dose series has not been completed, it is recommended that:
  - 0.5 mL HB doses are administered to clients younger than 20 years of age at appropriate intervals to complete a 3-dose series.
  - 1 mL HB doses are administered to clients 20 years of age and older at appropriate intervals to complete a 3-dose series.
  - **PHNs are to consult their regional MHO for case-by-case determination** before contacting the Ministry.

Herpes Zoster (RZV) (non-live recombinant, AS01$_B$ adjuvanted)

Shingrix™

Product monograph: https://ca.gsk.com/en-ca/products/shingrix/

Eligibility	• Solid organ transplant candidates and recipients 18 years and older. • Autologous, CAR-T therapy and allogeneic hematopoietic stem cell recipients 18 years and older.
Dosage & route	0.5 mL IM Administer the entire volume of the reconstituted product.
Series	**Dose 1**: Day 0 **Dose 2**: 6 months later (min. 4 weeks acceptable for SOT candidates /recipients **AND** all HSCT recipients)
Adult SOT candidate recommendations	• **The RZV series should be completed at least 2 weeks prior to transplant**. • **SOT candidates who are VZV seropositive AND who have not had *Herpes zoster* infection within 1 year:** ➢ Includes SOT candidates previously immunized with LZV (Zostavax®). ➢ A 1-year interval is currently recommended: – between LZV and RZV; and – *Herpes zoster* infection and immunization with RZV. • **If the SOT candidate is VZV seronegative:** ➢ Do not give RZV AND follow varicella immunization recommendations in SIM Appendix 7.9. Confirmation of VZV seropositivity post-Var series is recommended. ➢ An 8-week spacing interval is required between the last dose in the varicella series and the first RZV dose.
Adult SOT recipient recommendations	• **SOT recipient immunizations may commence once they are on baseline immunosuppression, usually 6-12 months after transplant, AND as determined appropriate by the individual's attending transplant physician.** ➢ Includes SOT recipients previously immunized with LZV (Zostavax®). ➢ A 1-year interval is currently recommended: – between LZV and RZV; and – *Herpes zoster* infection and immunization with RZV • The Saskatchewan Transplant Program has confirmed **that a patient clearance letter is not required to begin or resume immunizations** for SOT recipients.
Adult autologous HSCT and CAR-T therapy recipient recommendations	• **Autologous HSCT and CAR-T therapy recipients who are VZV seropositive AND who have not had *Herpes zoster* infection within the past 6 months AND are at least 6 months post-transplant.** • **If the autologous HSCT and CAR-T therapy recipient is VZV seronegative:** ➢ Do not give RZV **AND** follow varicella immunization recommendations in SIM Appendix 7.6. Confirmation of VZV seropositivity post-Var series is recommended. ➢ Commence the RZV series starting 36 months post-transplant.
Adult allogeneic HSCT recipient recommendations	• **Allogeneic HSCT recipients who are VZV seropositive AND who have not had *Herpes zoster* infection within the past 6 months AND are at least 2 years post-transplant AND are at least 12 months off immunosuppression AND have no flare of GVHD**. • **If the allogeneic HSCT recipient is VZV seronegative:** ➢ Do not give RZV **AND** follow varicella immunization recommendations in SIM Appendix 7.6. Confirmation of VZV seropositivity post-Var series is recommended. ➢ Commence the RZV series starting 36 months post-transplant.

Herpes Zoster (RZV) (non-live recombinant, $AS01_B$ adjuvanted)
Shingrix™ Product monograph: https://ca.gsk.com/en-ca/products/shingrix/

Contraindications	• Persons with active HZ should not be immunized with RZV. • Known hypersensitivity to the active substance or to any component of the vaccine. • Anaphylaxis to a previous dose of the vaccine.
Possible reactions	**Local:** pain, redness, swelling, tenderness at injection site. **Systemic**: myalgia, fatigue, headache, shivering, fever, nausea, vomiting, diarrhea, and/or abdominal pain. **Post-market reported reactions**: hypersensitivity reactions including rash, urticaria, angioedema Very rare cases of Guillain-Barré syndrome have been reported and data is inconclusive to prove causation.
Vaccine components	Each dose contains 50 mcg Varicella Zoster Virus (VZV) glycoprotein E (gE). Non-medicinal ingredients: Cholesterol, dioleoyl phosphatidylcholine, dipotassium phosphate, disodium phosphate anhydrous, polysorbate 80, potassium dihydrogen phosphate, Quillaja saponaria Molina, fraction 21 (QS-21), 3-O-desacyl-4'-monophosphoryl lipid A (MPL), sodium chloride, sodium dihydrogen phosphate dihydrate, sucrose, water for injection

Human Papillomavirus bivalent [Non-publicly funded]

CERVARIX® (HPV-2)
Product monograph available at: https://ca.gsk.com/en-ca/products/cervarix/

Human Papillomavirus 9-Valent (recombinant)

GARDASIL®9 (HPV-9)

Product monograph available at: https://www.merck.ca/en/wp-content/uploads/sites/20/2021/04/GARDASIL_9-PM_E.pdf

PUBLICLY FUNDED INDICATIONS	• Grade 6 students • As of April 1, 2025: All individuals eligible to start series through 26 years old. • Immunocompromised individuals aged 9 up to and including 26 years old. NOTE: Individuals who are eligible to receive publicly funded HPV-9 vaccine must start their series prior to age 27: ➢ If their first dose is given prior to age of 27, then subsequent publicly funded doses can be given to complete series after this age. ➢ If series is not started before 27th birthday, they are ineligible to start a publicly funded series.
SERIES --- **Note: immune compromised individuals must always receive a 3-dose HPV series.**	• **2-dose schedule**: 0.5 mL IM at 0 and 6 months for those 9 to 14 years of age ➢ Persons who received their first HPV dose before their 15th birthday **must** complete the 3-dose schedule if they present for their second dose after their 15th birthday. • **3-dose schedule**: 0.5 mL IM at 0, 2, and 6 months for eligible immune competent persons ≥15 years of age up to and including 26 years of age (ineligible at 27th birthday). --- • **3-dose schedule**: 0.5 mL IM at 0, 2, and 6 months for individuals aged 9 up to and including 26 years of age with the following risk factors (ineligible at 27th birthday). **NOTE: Birth cohort eligibility (as described above under Publicly Funded Indications) does not apply to these risk factors; age at presentation applies.** ➢ Immunocompromised – Acquired complement deficiency ➢ Immunocompromised – Congenital immunodeficiency ➢ Immunocompromised – HIV ➢ Immunocompromised – Related to Disease ➢ Immunocompromised – Treatment – Additional Information
REINFORCEMENT	Currently no recommendations.
NOTE	GARDASIL®9 should be used to complete an HPV series that was initiated with HPV-u, HPV-2 or HPV-4. Clients should be informed that a complete series of GARDASIL®9 is recommended to ensure protection against the five additional HPV types in the vaccine; however, additional doses of GARDASIL®9 beyond a complete HPV series for healthy or immune compromised individuals **are not part of the publicly funded program**.
CONTRA-INDICATIONS	History of anaphylactic reaction to a previous dose of a HPV vaccine, or to any component of GARDASIL®9.

Human Papillomavirus 9-Valent (recombinant) **GARDASIL®9 (HPV-9)**	
VACCINE COMPONENTS	Each 0.5-mL dose contains approximately 30 mcg of HPV Type 6 L1 protein, 40 mcg of HPV Type 11 L1 protein, 60 mcg of HPV Type 16 L1 protein, 40 mcg of HPV Type 18 L1 protein, 20 mcg of HPV Type 31 L1 protein, 20 mcg of HPV Type 33 L1 protein, 20 mcg of HPV Type 45 L1 protein, 20 mcg of HPV Type 52 L1 protein, and 20 mcg of HPV Type 58 L1 protein, approximately 500 mcg of aluminum (as Amorphous Aluminum Hydroxyphosphate Sulfate adjuvant), 0.78 mg of L-histidine, 50 mcg of polysorbate 80, 35 mcg of sodium borate, 9.56 mg of sodium chloride, and water for injection. Latex, antibiotic and preservative free.
EXPECTED REACTIONS	**Local:** Mild to moderate pain, swelling, erythema and pruritus at injection site. **Systemic:** Headache, tiredness, fever, nausea, dizziness. **Reported post-market**: vomiting, swollen glands (neck, armpit, or groin), Guillain-Barré syndrome, joint pain, aching muscles, unusual tiredness, weakness, or confusion, chills, stomachache, muscle weakness, leg pain, shortness of breath, generally feeling unwell, bleeding or bruising more easily than normal, and skin infection.
EFFECTIVENESS	Please refer to the product monograph for data for females and males in specific age categories.
OTHER CONSIDERATIONS	• Immunization with HPV vaccine does not remove the need for screening for cervical, vulvar, vaginal, anal, and certain head and neck cancers, such as oral, throat and back of mouth cancers as recommended by a health care professional; women should still get routine cervical cancer screening. • It is not known whether GARDASIL®9 is excreted in human milk. • There are no adequate and well-controlled studies in pregnant individuals. Because animal reproduction studies are not always predictive of human response, pregnancy should be avoided during the vaccination regimen for GARDASIL®9. **Pregnancy is NOT a contraindication for HPV-9 immunization**, however, individuals who become pregnant before completion of the vaccine series **may choose to defer** their vaccination schedule until after childbirth. Pregnant individuals exposed to GARDASIL® are encouraged to report their exposure or suspected adverse reactions by contacting Merck Canada Inc., at 1-800-567-2594.

Influenza (Inf) (surface antigen, inactivated, adjuvanted with MF59C.1)
FLUAD® SEQIRUS product monograph https://www.cslseqirus.ca/products

ELIGIBILITY	Prevention of seasonal influenza in those ≥ 65 years old
DOSE / SERIES	0.5 mL IM annually
CONTRA-INDICATIONS	1. History of anaphylactic reaction to a previous dose of any type of influenza vaccine 2. History of anaphylactic reaction to any component of any influenza vaccine (excluding egg).[1] 3. History of Guillain-Barré syndrome (GBS) within 6 weeks of receipt of a previous dose of influenza vaccine without another cause being identified.
PRECAUTIONS	Severe oculo-respiratory syndrome (ORS) after previous receipt of an influenza vaccine.
VACCINE COMPONENTS	Each 0.5 mL Fluad dose contains 15 mcg of each of the three influenza virus strains recommended annually by the WHO. Other ingredients: MF59C.1 adjuvant (citric acid, polysorbate 80, sodium citrate, sorbitan trioleate, squalene, water for injection), calcium chloride dehydrate, disodium phosphate dehydrate, magnesium chloride hexahydrate, potassium chloride, potassium dihydrogen phosphate, sodium chloride, and water for injection. May contain residual trace amounts of cetyltrimethylammonium bromide (CTAB), formaldehyde, hydrocortisone, kanamycin, neomycin, and ovalbumin (egg protein). Latex free.
EXPECTED REACTIONS	The most common (≥10%) reactions occurring after FLUAD administration in those ≥ 65 years old were pain at the injection site, temperature at the injection site, and erythema.
ADVERSE EVENTS	Immediate, allergic-type responses, such as hives, allergic asthma, or systemic anaphylaxis occur extremely rarely.
SPECIAL CONSIDERATIONS	Protect from light. Do not freeze. Gently shake the prefilled syringe to uniformly distribute the suspension before administering the dose.
EFFECTIVENESS	The antibody response to FLUAD® is increased when compared to the response to vaccines without adjuvant and is most pronounced for A/H3N2 and B influenza antigens.

[1] Individuals who are allergic or hypersensitive to eggs (including those who have experienced anaphylaxis following egg ingestion) can be immunized with inactivated or live attenuated influenza vaccine in any setting attended by immunization service providers who are following standard vaccine administration practice.

Influenza (Inf) (inactivated split virion)
FLUVIRAL®
GSK product monograph https://ca.gsk.com/en-ca/products/fluviral/

INDICATION	**DOSE / SERIES (Min. 6 months old)**		
Prevention of seasonal influenza	**Age group**	**Dosage**	**No. of Doses**
	6 months-8 years	0.5 mL	1 or 2 [1]
	9 years and older	0.5 mL	1
CONTRA-INDICATIONS	1. History of anaphylactic reaction to a previous dose of any type of influenza vaccine. 2. History of anaphylactic reaction to any component of any influenza vaccine (excluding egg).[2] 3. History of Guillain-Barré syndrome (GBS) within 6 weeks of receipt of a previous dose of influenza vaccine without another cause being identified. 4. Infants less than 6 months of age.		
PRECAUTIONS	Severe oculo-respiratory syndrome (ORS) after a previous dose of influenza vaccine.		
VACCINE COMPONENTS	Each 0.5 mL dose of vaccine contains 15 micrograms haemagglutinin of each of the three influenza virus strains recommended annually by the WHO. The vaccine is formulated with phosphate buffered saline composed of sodium chloride, potassium chloride, disodium hydrogen phosphate heptahydrate, potassium dihydrogen phosphate and water for injection. Each 0.5 mL dose contains, α-tocopheryl hydrogen succinate (200μg), and polysorbate 80 (512 μg). Each 0.5 mL dose may also contain residual amounts of egg proteins (ovalbumin $\leq$0.3μg), sodium deoxycholate, ethanol, formaldehyde and sucrose from the manufacturing process. Thimerosal in MDVs. Antibiotic-free.		
EXPECTED REACTIONS	In adults, the most common (≥10%) solicited local reaction was pain (32%); the most common solicited systemic adverse events were, headache (16%), fatigue (16%), and myalgia (15%). In children 3 to 17 years of age, the most common (≥10%) solicited local reaction was pain (56%). In children 3 to 4 years of age, the most common (≥10%) solicited systemic adverse events were irritability (25%), drowsiness (19%), and loss of appetite (16%). In children 5 to 17 years of age, the most common (≥10%) systemic adverse events were muscle aches (24%), fatigue (17%), headache (17%) and arthralgia (8%). In children 6 to 35 months of age, injection site pain was the most common (≥10%) solicited local reaction (40%). The most common solicited systemic adverse events were irritability (49%), drowsiness (37%), and loss of appetite (29%).		
ADVERSE EVENTS	Immediate, allergic-type responses, such as hives, allergic asthma, or systemic anaphylaxis occur extremely rarely.		
SPECIAL CONSIDERATIONS	Discard multi-dose vials 28 days after first entry. Protect from light. Do not freeze. Shake vial well prior to withdrawal of dose.		
EFFECTIVENESS	Refer to product monograph as data depends on age and studies design.		

[1] Children under 9 years of age who have not previously received seasonal influenza vaccine require 2 doses given 4 weeks apart. If the child has received 1 or more doses in any previous season, only a single dose is required.

[2] Individuals who are allergic or hypersensitive to eggs (including those who have experienced anaphylaxis following egg ingestion) can be immunized with inactivated or live attenuated influenza vaccine in any setting attended by immunization service providers who are following standard vaccine administration practice.

Influenza (Inf) (inactivated split virion)
FLUZONE®
Sanofi Pasteur product monograph:
https://www.sanofi.com/assets/countries/canada/docs/products/vaccines/fluzone-en.pdf

INDICATION	**DOSE / SERIES (Min. 6 months old)**		
Prevention of seasonal influenza	Age group	Dosage	No. of Doses
	6 months-8 years	0.5 mL	1 or 2 [1]
	9 years and older	0.5 mL	1
CONTRA-INDICATIONS	1. History of anaphylactic reaction to a previous dose of any type of influenza vaccine. 2. History of anaphylactic reaction to any component of any influenza vaccine (excluding egg).[2] 3. History of Guillain-Barré syndrome (GBS) within 6 weeks of receipt of a previous dose of influenza vaccine without another cause being identified. 4. Infants less than 6 months of age.		
PRECAUTIONS	Severe oculo-respiratory syndrome (ORS) after previous receipt of an influenza vaccine.		
VACCINE COMPONENTS	15 mcg hemagglutinin of each of the three influenza strains recommended annually by the WHO, phosphate buffered saline (sodium chloride, sodium phosphate (dibasic anhydrous), sodium phosphate (monobasic anhydrous) water for injection, Triton® X-100 NMT. May contain traces of egg protein, formaldehyde and sucrose from the manufacturing process. Latex, antibiotic and gelatin free. Thimerosal in MDVs.		
EXPECTED REACTIONS	**Very common (≥10%)**: pain at the injection site, erythema, induration, swelling, headache, myalgia and malaise. **Common (≥1% to <10%)**: Arthralgia, chills and fever. **Children 6 months-36 months** of age also experienced irritability, crying, lethargy, decreased appetite, diarrhea and vomiting.		
ADVERSE EVENTS	Immediate, allergic-type responses, such as hives, allergic asthma, or systemic anaphylaxis occur extremely rarely.		
SPECIAL CONSIDERATIONS	Protect from light. Do not freeze. Shake the prefilled syringe well to uniformly distribute the suspension before administration.		
EFFECTIVENESS	Refer to product monograph as data depends on age and studies design. Seroprotection is generally obtained within 2 to 3 weeks.		

[1] Children under 9 years of age who have not previously received seasonal influenza vaccine require 2 doses given 4 weeks apart. If the child has received 1 or more doses in any previous season, only a single dose is required.
[2] Individuals who are allergic or hypersensitive to eggs (including those who have experienced anaphylaxis following egg ingestion) can be immunized with inactivated or live attenuated influenza vaccine in any setting attended by immunization service providers who are following standard vaccine administration practice.

Influenza High Dose (InfHD) (inactivated split virion)
FLUZONE® High Dose
Sanofi Pasteur Product monograph:
https://www.sanofi.com/assets/countries/canada/docs/products/vaccines/fluzone-highdose-en.pdf

INDICATION	Prevention of seasonal influenza in those ≥ 65 years old
DOSE / SERIES	0.5 mL IM annually
CONTRA-INDICATIONS	1. History of anaphylactic reaction to a previous dose of any type of influenza vaccine 2. History of anaphylactic reaction to any component of any influenza vaccine (excluding egg).[1] 3. History of Guillain-Barré syndrome (GBS) within 6 weeks of receipt of a previous dose of influenza vaccine without another cause being identified.
PRECAUTIONS	Severe oculo-respiratory syndrome (ORS) after previous receipt of an influenza vaccine.
VACCINE COMPONENTS	60 mcg hemagglutinin of each influenza strain recommended annually by the WHO, phosphate buffered saline (sodium chloride; sodium phosphate (dibasic anhydrous); sodium phosphate (monobasic anhydrous), water for injection, Triton® X-100 NMT. May also contain traces of egg protein, formaldehyde and sucrose from the manufacturing process. Latex, antibiotic, gelatin and thimerosal free.
EXPECTED REACTIONS	The most common reactions occurring after FLUZONE® High-Dose administration were injection site pain (35.6%), myalgia (21.4%), headache (16.8%) and malaise (18%). Onset usually occurred within the first 3 days after vaccination. Most solicited reactions resolved within three days of vaccination.
ADVERSE EVENTS	Immediate, allergic-type responses, such as hives, allergic asthma, or systemic anaphylaxis occur extremely rarely.
SPECIAL CONSIDERATIONS	Protect from light. Do not freeze. Shake the prefilled syringe well to uniformly distribute the suspension before administering the dose.
EFFECTIVENESS	FLUZONE® High-Dose has been shown to induce higher antibody levels and have superior efficacy in preventing laboratory-confirmed influenza (prevented 24% more influenza cases) compared to the standard dose vaccine. Seroprotection is generally obtained within 4 weeks.

[1] Individuals who are allergic or hypersensitive to eggs (including those who have experienced anaphylaxis following egg ingestion) can be immunized with inactivated or live attenuated influenza vaccine in any setting attended by immunization service providers who are following standard vaccine administration practice.

Influenza - Non-publicly Funded

FLUCELVAX®
Seqirus product monograph: https://www.cslseqirus.ca/products

FLUMIST®
AstraZeneca product monograph available at https://www.astrazeneca.ca/en/our-medicines.html

Japanese Encephalitis

[Non-publicly funded]

IXIARO®

Product monograph available at: https://valneva.com/products/valnevas-products/

Measles-Mumps-Rubella (MMR) (live, attenuated)

M-M-R® II

Merck Canada Inc. product monograph available at: https://www.merck.ca/en/wp-content/uploads/sites/20/2021/04/MMR_II-PM_E.pdf

INDICATIONS [1]	**DOSE / SERIES**
1. Series for those born since January 1, 1970, who are 12 months and older. According to CIG, 1 dose of rubella is considered sufficient for immunity in all ages. Refer to Appendix 5.2: Publicly Funded MMR Vaccine Eligibility. **2.** Recommended for post-exposure prophylaxis of measles contacts as outlined in the Saskatchewan Communicable Disease Control Manual. **3.** Susceptible immunocompromised individuals as referred by their specialist via submission of *Chapter 7, Immunization of Special Populations. Appendix 7.3: MMR Immunization Referral Form.* **4.** Additional indications as noted in SIM Chapter 5 Appendix 5.2: Publicly Funded MMR Vaccine Eligibility. **a.** 1 dose for some adult travellers born before January 1, 1970. **b.** Infants 6-11 months old who are travelling abroad may be offered 1 early publicly funded dose of MMR.	**Dose 1**: 0.5 mL SC **Dose 2**: 0.5 mL SC minimum 4 weeks later ***MMR II may be given IM or SC per the product monograph, but SC recommended for practice consistency.***

REINFORCEMENT	Not indicated after 2 MMR doses.
PRECAUTIONS	• MMR should be given at the same time as other live vaccines. Otherwise, there must be 4 or more weeks between administering live vaccines. • For immune compromised clients only: separate the administration of MMR and Var by 4 weeks. • Do TB skin testing on the same day as MMR immunization, or delay TB skin testing for 4 weeks. • Family history of congenital immunodeficiency. • Physician or NP diagnosed thrombocytopenia within 6 weeks after first dose of a MMR-containing vaccine.
CONTRA-INDICATIONS	• History of anaphylactic reaction to a previous dose of a measles/mumps/rubella-containing vaccine, to any component of MMRII. • **Immunocompromised individuals unless determined by their specialist.** Refer to SIM, Chapter 7, *Immunization of Special Populations,* under specific condition for information. • Pregnancy. Counsel female recipients to avoid pregnancy for 1 month following immunization. Inadvertent immunization during pregnancy is not considered a medical indication for therapeutic abortion. • People with active untreated tuberculosis. • Recent administration of an immune globulin preparation **(excluding RhIg)** or blood product. [1]
VACCINE COMPONENTS	Measles virus, Enders' Edmonston strain (live, attenuated); Mumps virus, Jeryl Lynn® (B level) strain (live, attenuated); and Rubella virus, Wistar RA 27/3 strain (live, attenuated); hydrolyzed gelatin / Medium 199 with Hank's salts / Minimum Essential Medium, Eagle / Monosodium L-glutamate monohydrate / Neomycin / Phenol red / Potassium phosphate dibasic (anhydrous) / Potassium phosphate monobasic / Sodium bicarbonate / Sodium phosphate dibasic (anhydrous) / Sodium phosphate monobasic / Sorbitol / Sucrose / Water for injection Manufacturing Process Residuals: Fetal bovine serum / Recombinant human albumin. May contain minute quantities of egg protein. Preservative, latex and thimerosal free.

Measles-Mumps-Rubella (MMR) (live, attenuated) **M-M-R® II** (Merck Canada Inc. product monograph available at: https://www.merck.ca/en/wp-content/uploads/sites/20/2021/04/MMR_II-PM_E.pdf)	
EXPECTED REACTIONS	**Local:** Tenderness, redness, swelling, induration, wheal and flare reaction, urticaria. **Systemic:** • A fever lasting up to 3 days may occur 6 to 23 days after immunization. Monitor your child and treat their fever **if** they are uncomfortable, refusing fluids and not sleeping. • Swelling of the jawline (salivary glands), cheeks and neck 7 to 12 days later. • A blotchy red rash 4 to 12 days later. • Joint or muscle aches and pain. • Nausea, vomiting, diarrhea or decreased appetite. • Headache, dizziness, fussiness, tiredness. • Lymph nodes swelling near the immunized limb. **Extremely rare** reactions may include: • A temporary drop in the number of blood cells (platelets) that prevent bleeding (thrombocytopenia) within 6 weeks of being immunized. In most people, this resolves within 3 months without serious complications. • Encephalitis (less than 1 in a million). The risk of encephalitis from measles disease is about 1 in 1,000, which is much higher than from this vaccine.
SPECIAL CONSIDERATION	Re: Immunization of immunocompromised clients - consult the appropriate physician (i.e., either the primary care physician most familiar with the client's current medical status or a medical specialist) and obtain a completed *MMR Immunization Referral Form* (Chapter 7, *Immunization of Special Populations,* Appendix 7.3) before immunization.
EFFECTIVENESS	After 1st dose, 85-95% protection to measles; 95.5% to mumps; 99.3% to rubella. After 2nd dose 100% protection to all antigens.

[1] Refer to SIM, Chapter 5, *Immunization Schedules*, Section 3.5, *Spacing of Live Vaccines, Blood Products and Immune Globulin Preparations* and Section 3.51, *Immune Globulin Preparations or Blood: Timing Intervals for Vaccines Containing Live Measles, Mumps, Rubella, or Varicella Virus.*

Measles-Mumps-Rubella (MMR) (live, attenuated)

PRIORIX®

Product monograph available at: https://ca.gsk.com/en-ca/products/priorix/

INDICATIONS [1]	**DOSE / SERIES**
1. Series for those born since January 1, 1970, who are 12 months and older. According to CIG, 1 dose of rubella is considered sufficient for immunity in all ages. Refer to Appendix 5.2: Publicly Funded MMR Vaccine Eligibility. **2.** Recommended for post-exposure prophylaxis of measles contacts as outlined in the Saskatchewan Communicable Disease Control Manual. **3.** Susceptible immunocompromised individuals as referred by their specialist via submission of *Chapter 7, Immunization of Special Populations. Appendix 7.3: MMR Immunization Referral Form.* **4.** Additional indications as noted in SIM Chapter 5 Appendix 5.2: Publicly Funded MMR Vaccine Eligibility. **a.** 1 dose for some adult travellers born before January 1, 1970. **b.** Infants 6-11 months old who are travelling abroad may be offered 1 early publicly funded dose of MMR.	**Dose 1**: 0.5 mL SC **Dose 2**: 0.5 mL SC minimum 4 weeks later

REINFORCEMENT	Not indicated after 2 MMR doses.
PRECAUTIONS	• MMR should be given at the same time as other live vaccines. Otherwise, there must be 4 weeks between administering live vaccines. • For immune compromised clients only: separate the administration of MMR and Var by 4 weeks. • Do TB skin testing on the same day as MMR immunization, or delay TB skin testing for 4 weeks. • Family history of congenital immunodeficiency. • Physician-diagnosed thrombocytopenia within 6 weeks after first dose of a MMR-containing vaccine.
CONTRA-INDICATIONS	• History of anaphylactic reaction to a previous dose of a measles/mumps/rubella-containing vaccine, to any component of Priorix, or to latex when administering Priorix with the pre-filled syringe (latex is present in the pre-filled syringe of diluent for Priorix). • **Immunocompromised individuals unless determined by their specialist**. Refer to SIM, Chapter 7, *Immunization of Special Populations*, under specific condition for information. • Pregnancy. Counsel female recipients to avoid pregnancy for 1 month following immunization. Inadvertent immunization during pregnancy is not considered a medical indication for therapeutic abortion. • People with active untreated tuberculosis. • Recent administration of an immune globulin preparation **(excluding RhIg)** or blood product [1]
VACCINE COMPONENTS	Not less than: $10^{3.0}$ $CCID_{50}$ of the Schwarz measles; $10^{3.7}$ $CCID_{50}$ of the RIT 4385 mumps; and $10^{3.0}$ $CCID_{50}$ of the Wistar RA 27/3 rubella virus strains/ per 0.5 mL dose, and amino acids, lactose, mannitol and sorbitol. Residual: neomycin sulphate. Thimerosal free. The vaccine may contain minute quantities of egg protein

Measles-Mumps-Rubella (MMR) (live, attenuated)

PRIORIX®

Product monograph available at: https://ca.gsk.com/en-ca/products/priorix/

EXPECTED REACTIONS	**Local:** Pain, redness, swelling, induration, wheal and flare reaction, urticaria. **Systemic:** • A fever lasting up to 3 days may occur 6 to 23 days after immunization. Monitor your child and treat their fever **if** they are uncomfortable, refusing fluids and not sleeping. • Pain, swelling and redness where the needle was given. • Swelling of the jawline (salivary glands), cheeks and neck 7 to 12 days later. • A blotchy red rash 4 to 12 days later. • Joint or muscle aches and pain. • Nausea, vomiting, diarrhea or decreased appetite. • Headache, dizziness, fussiness, tiredness. • Lymph nodes swelling near the immunized limb. **Extremely rare** reactions may include: • A temporary drop in the number of blood cells (platelets) that prevent bleeding (thrombocytopenia) within 6 weeks of being immunized. In most people, this resolves within 3 months without serious complications. • Encephalitis (less than 1 in a million). The risk of encephalitis from measles disease is about 1 in 1,000, which is much higher than from this vaccine.
SPECIAL CONSIDERATIONS	Re: Immunization of immunocompromised clients - consult the appropriate physician (i.e., either the primary care physician most familiar with the client's current medical status or a medical specialist) and obtain a completed *MMR Immunization Referral Form* (Chapter 7, *Immunization of Special Populations,* Appendix 7.3) before immunization.
EFFECTIVENESS	After 1st dose, 85-95% protection to measles; 95.5% to mumps; 99.3% to rubella. After 2nd dose 100% protection to all antigens.

[1] Refer to SIM, Chapter 5, *Immunization Schedules*, Section 3.5, *Spacing of Live Vaccines, Blood Products and Immune Globulin Preparations* and Section 3.5.1, *Immune Globulin Preparations or Blood: Timing Intervals for Vaccines Containing Live Measles, Mumps, Rubella, or Varicella Virus.*

Measles-Mumps-Rubella-Varicella (MMRV)

(live, attenuated)

PRIORIX-TETRA™

Product monograph available at https://ca.gsk.com/en-ca/products/priorix-tetra/

INDICATION [1]	DOSE / SERIES[2, 3, 4]
Healthy children 1 year up to and including 12 years of age who require protection against MMR and varicella diseases.	**Dose 1**: 0.5 mL SC (at 12 months) **Dose 2**: 0.5 mL SC (at 18 months) **NOTE:** According to CIG, 1 dose of rubella is considered sufficient for immunity in all ages. Refer to *Appendix 5.2: Publicly Funded MMR Vaccine Eligibility.*
PRECAUTIONS	• Those 18 years and younger should avoid taking salicylates for 6 weeks after receiving a varicella-containing vaccine. Specialist consultation is required prior to immunization of these children with a varicella-containing vaccine. • Physician-diagnosed thrombocytopenia within 6 weeks after first dose of a MMR-containing vaccine. • Family history of congenital immunodeficiency. • Do TB skin testing on the same day as MMR immunization, or delay TB skin testing for 4 or more weeks. • Systemic antiviral therapy (e.g., acyclovir, valacyclovir, famciclovir) should be avoided for 24 hours, as it may affect the reproduction of the vaccine virus and may reduce the efficacy of varicella-containing vaccine (CIG). • It is recommended that people taking long-term antiviral therapy should discontinue these drugs, if possible, from at least 24 hours before administration of varicella-containing vaccine and should not restart antiviral therapy until 14 days after vaccine administration (CIG).
CONTRA-INDICATIONS	• History of anaphylactic reaction to a previous dose of a measles/mumps/rubella or varicella-containing vaccine, to any component of PRIORIX-TETRA™. • Recent administration of an immune globulin preparation or blood product [3]. • Pregnancy. • People with active untreated tuberculosis. • Immunocompromised individuals (MMR and Var may be provided as separate doses if approved by specialist, refer to Ch. 7).
VACCINE COMPONENTS	Live, attenuated measles virus (Schwarz strain) not less than $10^{3.0}$ $CCID_{50}$; Live, attenuated mumps virus (RIT 4385 strain, derived from Jeryl Lynn strain) not less than $10^{4.4}$ $CCID_{50}$; Live, attenuated rubella virus (Wistar RA 27/3 strain) not less than $10^{3.0}$ $CCID_{50}$; Live, attenuated varicella virus (Oka strain) not less than $10^{3.3}$ PFU; amino acids for injection, lactose, mannitol, neomycin sulphate, sorbitol, water for injection. Vaccine and diluent vial stoppers contain rubber. The measles and mumps components of the vaccine are produced in chick embryo cell culture and may therefore contain traces of egg protein. Thimerosal free. Latex-free

Measles-Mumps-Rubella-Varicella (MMRV)

(live, attenuated)

PRIORIX-TETRA™

EXPECTED REACTIONS	**Local:** Pain, redness and swelling. **Systemic**: • A fever lasting up to 3 days may occur 7 to 10 days after getting this vaccine. Monitor your child and treat their fever (at least 6 to 8 hours after immunization) **if** they are uncomfortable, refusing fluids and not sleeping. • Less than 1 in 3,000 children with high fevers after getting their first dose of MMRV **may** have a febrile seizure. **Febrile seizures are temporary and not harmful to the child. If you are concerned, please talk to a public health nurse.** • Swelling of the jawline (salivary glands), cheeks and neck 7 to 12 days later. • Joint or muscle aches and pain. • Nausea, vomiting, diarrhea or decreased appetite. • Headache, dizziness, fussiness, tiredness. • Lymph nodes swelling near the immunized limb. • A blotchy red rash 4 to 12 days later. • A varicella-like (blister) rash 5 to 26 days after getting immunized. People who have this rash rarely spread the vaccine virus to others. To prevent possible viral spreading, the rash should be covered until the blisters have dried and crusted over**.** **Extremely rare** reactions may include: • A temporary drop of the number of blood cells (platelets) that prevent bleeding (thrombocytopenia) within 6 weeks of being immunized. In most people, this resolves within 3 months without serious complications. • Encephalitis (less than one in one million). The risk of encephalitis from measles disease is about one in 1,000, which is much higher than from this vaccine.
ADVERSE EVENTS	Following the administration of the first dose of PRIORIX-TETRA®, higher incidences of fever (approximately 1.5-fold) were observed when compared to the concomitant administration of PRIORIX® [*MMR*] and VARILRIX® vaccines at separate injection sites (p.6). Review fever management with client.
EFFECTIVENESS	One year after 2nd MMRV dose, 98.8% of all children were protected measles, rubella and varicella and 90.6% were protected against mumps.

[1] Minimum age for vaccine is 9 months in the product monograph and applies to exceptional circumstances only approved by a MHO.

[2] There must be 4 weeks minimum spacing between MMRV doses

[3] Refer to SIM, Chapter 5, *Immunization Schedules*, Section 3.5, *Spacing of Live Vaccines, Blood Products and Immune Globulin Preparations* and Section 3.5.1, *Immune Globulin Preparations or Blood: Timing Intervals for Vaccines Containing Live Measles, Mumps, Rubella, or Varicella Virus.*

[4] Individuals who are eligible for a 2-dose varicella series who have **documentation of lab confirmed** varicella after their first varicella-containing vaccine dose do not require a second varicella-containing vaccine dose as they will have developed immunity. Provide a second dose of varicella-containing vaccine to those without this documentation.

[5] MMRV vaccines are considered interchangeable.

Measles-Mumps-Rubella-Varicella (MMRV) (live, attenuated)

ProQuad™

Product monograph available at: https://www.merck.ca/en/wp-content/uploads/sites/20/2021/04/PROQUAD-PM_E.pdf

INDICATION [1]	**DOSE / SERIES**[2, 3, 4]
Healthy children 1 year up to and including 12 years of age who require protection against MMR and varicella diseases.	**Dose 1**: 0.5 mL SC (at 12 months) **Dose 2**: 0.5 mL SC (at 18 months) **NOTE:** According to CIG, 1 dose of rubella is considered sufficient for immunity in all ages. Refer to Appendix 5.2: *Publicly Funded MMR Vaccine Eligibility.*
PRECAUTIONS	• Those 18 years and younger should avoid taking salicylates for 6 weeks after receiving a varicella-containing vaccine. Specialist consultation is required prior to immunization of these children with a varicella-containing vaccine. • Physician-diagnosed thrombocytopenia within 6 weeks after first dose of a MMR-containing vaccine. • Family history of congenital immunodeficiency. • Do TB skin testing on the same day as MMR immunization, or delay TB skin testing for 4 or more weeks. • Systemic antiviral therapy (e.g., acyclovir, valacyclovir, famciclovir) should be avoided in the peri-immunization period, as it may affect the reproduction of the vaccine virus and may reduce the efficacy of varicella-containing vaccine (CIG). • It is recommended that people taking long-term antiviral therapy should discontinue these drugs, if possible, from at least 24 hours before administration of varicella-containing vaccine and should not restart antiviral therapy until 14 days after vaccine administration (CIG).
CONTRA-INDICATIONS	• History of anaphylactic reaction to a previous dose of a measles/mumps/rubella or varicella-containing vaccine, or to any component of ProQuad™**.** • Recent administration of an immune globulin preparation or blood product [3]. • Pregnancy. • People with active untreated tuberculosis. • Immunocompromised individuals (MMR and Var may be provided as separate doses if approved by specialist).
VACCINE COMPONENTS	Live, attenuated measles virus derived from Enders' Edmonston strain; live, attenuated mumps virus (JERYL LYNN® (B level) strain; live, attenuated rubella virus (Wistar RA 27/3 strain); live, attenuated Oka/Merck strain of varicella zoster virus; bovine serum albumin, buffer and media ingredients, hydrolyzed gelatin, monosodium L-glutamate, MRC-5 cell residuals, neomycin, potassium chloride, potassium phosphate, recombinant human albumin (rHA), sodium bicarbonate, sodium chloride, sodium phosphate, sorbitol, sucrose, urea. The vaccine may contain minute quantities of egg protein. Preservative, latex and thimerosal free.

Measles-Mumps-Rubella-Varicella (MMRV) (live, attenuated)

ProQuad™

EXPECTED REACTIONS	**Local:** Pain, redness and swelling. **Systemic**: • A fever lasting up to 3 days may occur 7 to 10 days after getting this vaccine. Monitor your child and treat their fever (at least 6 to 8 hours after immunization) **if** they are uncomfortable, refusing fluids and not sleeping. • Less than 1 in 3,000 children with high fevers after getting their first dose of MMRV **may** have a febrile seizure. **Febrile seizures are temporary and not harmful to the child. If you are concerned, please talk to a public health nurse.** • Swelling of the jawline (salivary glands), cheeks and neck 7 to 12 days later. • Joint or muscle aches and pain. • Nausea, vomiting, diarrhea or decreased appetite. • Headache, dizziness, fussiness, tiredness. • Lymph nodes swelling near the immunized limb. • A blotchy red rash 4 to 12 days later. • A varicella-like (blister) rash 5 to 26 days after getting immunized. People who have this rash rarely spread the vaccine virus to others. To prevent possible viral spreading, the rash should be covered until the blisters have dried and crusted over**.** **Extremely rare** reactions may include: • A temporary drop of the number of blood cells (platelets) that prevent bleeding (thrombocytopenia) within 6 weeks of being immunized. In most people, this resolves within 3 months without serious complications. • Encephalitis (less than one in one million). The risk of encephalitis from measles disease is about one in 1,000, which is much higher than from this vaccine.
ADVERSE EVENTS	Administration of ProQuad™ (dose 1) to children 12 to 23 months old was associated with higher rates of fever and febrile seizures at 5 to 12 days after vaccination when compared to children vaccinated with M-M-R® II and VARIVAX® administered separately. Review fever management with client.
EFFECTIVENESS	The antibody persistence rates 1 year post-vaccination in recipients **of a single dose** of ProQuad™ were 98.9% (1722/1741) for measles, 96.7% (1676/1733) for mumps, 99.6 (1796/1804) for rubella, and 97.5% (1512/1550) for varicella (≥ 5 gp ELISA units/mL)

[1] Minimum age for this vaccine is 12 months. Consult MHO for recommendations regarding exceptional circumstances.

[2] There must be 4 weeks minimum spacing between MMRV doses

[3] Refer to SIM, Chapter 5, *Immunization Schedules*, Section 3.5, *Spacing of Live Vaccines, Blood Products and Immune Globulin Preparations* and Section 3.5.1, *Immune Globulin Preparations or Blood: Timing Intervals for Vaccines Containing Live Measles, Mumps, Rubella, or Varicella Virus.*

[4] Individuals who are eligible for a 2-dose varicella series who have **documentation of lab confirmed** varicella after their first varicella-containing vaccine dose do not require a second varicella-containing vaccine dose as they will have developed immunity. Provide a second dose of varicella-containing vaccine to those without this documentation.

[5] MMRV vaccines are considered interchangeable.

Meningococcal Conjugate ACYW-135 (Men-C-ACYW-135)

MenQuadfi™

Product monograph available at: https://www.sanofi.com/en/canada/your-health/vaccines-products/menquadfi

DOSE : 0.5 ml IM	
INDICATIONS [1]	
1. For meningococcal disease serogroup A, C, Y or W-135 post-exposure immunoprophylaxis, refer to the CDC Manual *Meningococcal Disease* chapter. 2. **1-dose** Men-C-ACYW-135 for 12 months and older as part of the **routine** immunization program. 3. **1-dose** Men-C-ACYW-135 for Grade 8 students (born since January 1, 2013) beginning in the 2026-27 school year. [2, 3] 4. Medically high-risk individuals ≥ 6 weeks and older with the following medical conditions as noted in Chapter 7 Special Populations. Refer to high-risk client series schedules below: • asplenia – congenital, acquired or functional [4] • HIV – ONLY for children up to and including 17 years of age • CSF disorders • sickle cell disease • cochlear implant recipient or candidate • congenital immunodeficiency or acquired complement deficiency [5] • solid organ or islet transplant recipient or candidate • hematopoietic stem cell transplant (HSCT) recipient	
HIGH-RISK CLIENT SERIES BASED ON AGE AT PRESENTATION (NACI)	**6 weeks to <7 months** 3-dose series • 1st dose followed by 2nd dose 2 months later • 3rd dose given at/after 12 months of age, with 2 months between doses 2 and 3
	7 months to <12 months 2-dose series • 1st dose followed by 2nd dose given at/after 12 months of age, with 2 months between doses 1 and 2
	12 months and older [2, 5] 2-dose series with 2 months between doses
REINFORCE-MENT DOSES	**1 dose every 5 years** for asplenia (congenital, acquired or functional), congenital immunodeficiency, acquired complement deficiency, and HSCT and SOT transplant recipients.
CONTRA-INDICATIONS	History of anaphylactic reaction to a previous dose of any meningococcal-containing vaccine, or to any component of MenQuadfi
VACCINE COMPONENTS	Each dose contains 10 mcg each of meningococcal A, C, Y and W-135 polysaccharide concentrate conjugated to a tetanus toxoid protein, tetanus toxoid, sodium chloride 3.35 mg, sodium acetate, water for injection. Latex-free. Preservative free.
EXPECTED REACTIONS	**Local**: Pain, redness, swelling. **Systemic**: fever, vomiting, myalgia, malaise, headache. In young children: abnormal crying, drowsiness, loss of appetite, irritability.
EFFECTIVENESS	Information available for age categories in product monograph.

[1] The recommended interval between the administration of any Men-C-C and Men-C-ACYW-135 vaccine doses is 4 weeks (regardless of which vaccine was given first).

[2] Those who missed the school age program are eligible to be immunized up to and including 21 years old (ineligible upon 22nd birthday).

[3] For students born since January 1, 2013, and who have previously received at least one Men-C-ACYW-135 dose (e.g., for travel, close contact of IMD, previous provincial schedule):

1. If their last Men-C-ACYW-135 vaccine dose was received when younger than 12 years of age, offer the vaccine in Grade 8 starting September 2026.
2. If their last Men-C-ACYW-135 vaccine dose was received at 12 years of age or older, they are considered up to date **for Grade 8**.

Meningococcal Conjugate ACYW-135 (Men-C-ACYW-135)
MenQuadfi

[4] Give vaccine at least 14 days prior to elective splenectomy, or if not possible, 14 or more days post-splenectomy. When there is concern that the patient may not present later for immunization, give vaccine before discharge.

[5] People with conditions requiring the receipt of a terminal complement inhibitor (TCI) should be vaccinated at least two weeks prior to receiving their first TCI dose.

Meningococcal Conjugate ACYW-135 (Men-C-ACYW-135)

Menveo™ Product monograph available at: https://ca.gsk.com/en-ca/products/menveo/

DOSE: 0.5 ml IM	
INDICATIONS [1]	
1. For meningococcal disease serogroup A, C, Y or W-135 post-exposure immunoprophylaxis, refer to the CDC Manual *Meningococcal Disease* chapter. 2. **1-dose** Men-C-ACYW-135 for 12 months and older as part of the **routine** immunization program. 3. **1-dose** Men-C-ACYW-135 for Grade 8 students (born since January 1, 2013) beginning in the 2026-27 school year.[2, 3] 4. Medically high-risk individuals ≥ 6 weeks and older with the following medical conditions as noted in Chapter 7 Special Populations. Refer to high-risk client series schedules below: • asplenia – congenital, acquired or functional [4] • HIV – ONLY for children up to and including 17 years of age • CSF disorders • sickle cell disease • cochlear implant recipient or candidate • congenital immunodeficiency or acquired complement deficiency [6] • solid organ or islet transplant recipient or candidate • hematopoietic stem cell transplant (HSCT) recipient	
HIGH-RISK CLIENT SERIES BASED ON AGE AT PRESENTATION (NACI)	**6 weeks to <7 months** 3-dose series • 1st dose followed by 2nd dose 2 months later • 3rd dose given at/after 12 months of age, with 2 months between doses 2 and 3
	7 months to <12 months 2-dose series • 1st dose followed by 2nd dose given at/after 12 months of age, with 2 months between doses 1 and 2
	12 months and older [2, 5] 2-dose series with min. 2 months between doses
REINFORCE-MENT DOSES	**1 dose every 5 years** for asplenia (congenital, acquired or functional), congenital immunodeficiency, acquired complement deficiency, and HSCT and SOT transplant recipients.
CONTRA-INDICATIONS	History of anaphylactic reaction to a previous dose of a meningococcal containing vaccine, or to any component of Menveo™.
VACCINE COMPONENTS	5 mcg each of meningococcal C, W-135 and Y oligosaccharides conjugated and 10 mcg of meningococcal A oligosaccharide conjugated to a total of approximately 47 mcg of Cross-Reactive Material (CRM197) from *Corynebacterium diphtheriae*, potassium dihydrogen phosphate, sodium chloride, sodium dihydrogen phosphate monohydrate, di-sodium hydrogen phosphate bihydrate, sucrose, water for injection. Thimerosal and latex free.
EXPECTED REACTIONS	**Local**: Pain, redness, swelling at injection site. **Systemic**: headache, tiredness, diarrhea, irritability, loss of appetite or fever.
EFFECTIVENESS	93-100% of children, adolescents & adults show a ≥4-fold rise in titres at day 28.

[1] The recommended interval between the administration of any Men-C-C and Men-C-ACYW-135 vaccine doses is 4 weeks (regardless of which vaccine was given first).

[2] Those who missed the school age program are eligible to be immunized up to and including 21 years old (ineligible upon 22nd birthday).

[3] For students born since January 1, 2013, and who have previously received at least one Men-C-ACYW-135 dose (e.g., for travel, close contact of IMD, previous provincial schedule):

1. If their last Men-C-ACYW-135 vaccine dose was received when younger than 12 years of age, offer the vaccine in Grade 8 starting September 2026.
2. If their last Men-C-ACYW-135 vaccine dose was received at 12 years of age or older, they are considered up to date **for Grade 8**

Meningococcal Conjugate ACYW-135 (Men-C-ACYW-135)
Menveo™

[4] Give vaccine at least 14 days prior to elective splenectomy, or if not possible, 14 or more days post-splenectomy. When there is concern that the patient may not present later for immunization, give vaccine before discharge.
[5] People with conditions requiring the receipt of a terminal complement inhibitor (TCI) should be vaccinated at least two weeks prior to receiving their first TCI dose.

Meningococcal Conjugate ACYW-135 (Men-C-ACYW-135)

NIMENRIX® Product monograph available at: https://pdf.hres.ca/dpd_pm/00073626.PDF

DOSE: 0.5 ml IM	
INDICATIONS [1]	
1. For meningococcal disease serogroup A, C, Y or W-135 post-exposure immunoprophylaxis, refer to the CDC Manual *Meningococcal Disease* chapter. 2. **1-dose** Men-C-ACYW-135 for 12 months and older as part of the **routine** immunization program. 3. **1-dose** Men-C-ACYW-135 for Grade 8 students (born since January 1, 2013) beginning in the 2026-27 school year. [2, 3] 4. Medically high-risk individuals ≥ 6 weeks and older with the following medical conditions as noted in Chapter 7 Special Populations. Refer to high-risk client series schedules below: • asplenia – congenital, acquired or functional [4] • HIV – ONLY for children up to and including 17 years of age • CSF disorders • sickle cell disease • cochlear implant recipient or candidate • congenital immunodeficiency or acquired complement deficiency [5] • solid organ or islet transplant recipient or candidate • hematopoietic stem cell transplant (HSCT) recipient	
HIGH-RISK CLIENT SERIES BASED ON AGE AT PRESENTATION (NACI)	**6 weeks to <7 months** 3-dose series • 1st dose followed by 2nd dose 2 months later • 3rd dose given at/after 12 months of age, with 2 months between doses 2 and 3
	7 months to <12 months 2-dose series • 1st dose followed by 2nd dose given at/after 12 months of age, with 2 months between doses 1 and 2
	12 months and older [2, 5] 2-dose series with 2 months between doses
REINFORCE-MENT DOSES	**1 dose every 5 years** for asplenia (congenital, acquired or functional), congenital immunodeficiency, acquired complement deficiency, and HSCT and SOT transplant recipients.
CONTRA-INDICATIONS	History of anaphylactic reaction to a previous dose of a meningococcal containing vaccine, or to any component of NIMENRIX™.
VACCINE COMPONENTS	*Neisseria meningitidis* serogroup A polysaccharide, *Neisseria meningitidis* serogroup C polysaccharide, *Neisseria meningitidis* serogroup W-135 polysaccharide, *Neisseria meningitidis* serogroup Y polysaccharide, sucrose, trometamol, sodium chloride, water for injection. Latex-free.
EXPECTED REACTIONS	**Local**: Pain, redness, swelling, bruising at injection site. **Systemic**: headache, tiredness, diarrhea, irritability, loss of appetite, fever.
EFFECTIVENESS	For all serogroups (A, C, W-135, Y), the persistence of the antibodies elicited by NIMENRIX™ was similar or higher than those induced by the licensed Men-C-ACYW-135 vaccines.

[1] The recommended interval between the administration of any Men-C-C and Men-C-ACYW-135 vaccine doses is 4 weeks (regardless of which vaccine was given first).

[2] Those who missed the school age program are eligible to be immunized up to and including 21 years old (ineligible upon 22nd birthday).

[3] For students born since January 1, 2013, and who have previously received at least one Men-C-ACYW-135 dose (e.g., for travel, close contact of IMD, previous provincial schedule):

1. If their last Men-C-ACYW-135 vaccine dose was received when younger than 12 years of age, offer the vaccine in Grade 8 starting September 2026.
2. If their last Men-C-ACYW-135 vaccine dose was received at 12 years of age or older, they are considered up to date **for Grade 8.**

Meningococcal Conjugate ACYW-135 (Men-C-ACYW-135)

NIMENRIX®

[4] Give vaccine at least 14 days prior to elective splenectomy, or if not possible, 14 or more days post-splenectomy. When there is concern that the patient may not present later for immunization, give vaccine before discharge.

[5] People with conditions requiring the receipt of a terminal complement inhibitor (TCI) should be vaccinated at least two weeks prior to receiving their first TCI dose.

Meningococcal B (Multicomponent, recombinant, adsorbed)

BEXSERO® (Men-B4C)

Product monograph available at: https://ca.gsk.com/en-ca/products/bexsero/

INDICATIONS[1, 2, 3]	1. For meningococcal disease serogroup B post-exposure immunoprophylaxis, refer to the CDC Manual *Meningococcal Disease* chapter. 2. Individuals ≥ 6 weeks and older with the following medical conditions as noted in Chapter 7 Special Populations: • Asplenia – congenital, acquired or functional • Sickle cell disease and other hemoglobinopathies • Congenital immunodeficiency • Acquired complement deficiency • Children up to and including 17 years of age who are infected with HIV • Solid organ or islet cell transplant candidates or recipients as per transplant agency **schedule recommendations** in SIM CH. 7* • Hematopoietic stem cell transplant (HSCT) recipients as per transplant agency **schedule recommendations** in SIM CH. 7*
DOSE	0.5 mL IM. Protect from light.
CONTRA-INDICATIONS	BEXSERO should not be administered to individuals who are hypersensitive to this vaccine or to any ingredient in the formulation or components of the container closure.
HIGH-RISK CLIENT SERIES BASED ON AGE AT PRESENTATION	**6 weeks through 5 months** 4-dose series • Doses 1, 2 and 3 given 1 month apart. Administration at 2 months, 4 months and 6 months is recommended. • Dose 4 given at/after 12 months of age, with min. 6 months between doses 3 and 4.
	6 months through 11 months 3-dose series • Doses 1 and 2 given 2 months apart. • Dose 3 given at/after 12 months of age, with 2 months between doses 2 and 3.
	12 months through 23 months 3-dose series • Doses 1 and 2 given 2 months apart. • Dose 3 given 12-23 months after dose 2.
	2 years and older (including adults*) 2-dose series with 1 month between doses.
VACCINE COMPONENTS	Recombinant *Neisseria meningitidis* serogroup B NHBA fusion protein; recombinant *Neisseria meningitidis* serogroup B NadA protein; recombinant *Neisseria meningitidis* serogroup B fHbp fusion protein; outer membrane vesicles (OMV) from *Neisseria meningitidis* serogroup B strain NZ98/254 measured as amount of total protein containing the PorA P1.4, aluminum hydroxide, histidine, sodium chloride, sucrose, water for injection. Residue: kanamycin less than 0.01 mcg/dose. Thimerosal free. The tip cap of the syringe may contain natural rubber latex. Although the risk for developing allergic reactions is very small, health professional should consider the benefit-risk prior to administering this vaccine to subjects with known history of hypersensitivity to latex.

Meningococcal B (Multicomponent, recombinant, adsorbed)

BEXSERO® (Men-B4C)

EXPECTED REACTIONS	Common reactions to the vaccine may include: • Soreness, pain, redness and swelling at the injection site. Extensive swelling of the vaccinated limb, blisters at or around the injection site, and/or a hard lump at the injection site (which may last for more than one month) have also been reported. • Fever, loss of appetite, sleepiness, irritability, headache, vomiting, diarrhea, headache or rash. • Unusual crying in young children. • These reactions are mild and generally last 1 to 2 days. • High fever and seizures are uncommon. • Hypotonic-hyporesponsive episode, syncope or vasovagal responses to injection have been reported as post-market events. • Lymphadenopathy. • Allergic reactions (including anaphylactic reactions) have been reported as post-market events.
EFFECTIVENESS	Immunogenicity information in the product monograph indicates that administration of age-appropriate series provides 75% to 100% immunogenicity among the 4 meningococcal components. Duration of protection is unknown.

NOTES

1. An increased risk of hemolysis or low hemoglobin has been observed when patients already being treated with SOLIRIS (eculizumab) get vaccinated against serogroup B meningococcal infection with Bexsero® (Alexion Pharma Canada).
2. People with conditions requiring the receipt of a terminal complement inhibitor (TCI) should be vaccinated at least two weeks prior to receiving their first TCI dose.

Meningococcal B
Bivalent recombinant lipoprotein [Non-publicly funded]

Trumenba™ (MenB bivalent)
Product monograph: https://www.pfizer.ca/en/our-products

Pneumococcal Conjugate 10-Valent [Non-publicly funded]

SYNFLORIX™ (Pneu-C-10)
Product monograph: https://ca.gsk.com/media/vrfprgyd/synflorix.pdf

Pneumococcal Conjugate 13-Valent [Non-publicly funded]

Prevnar® 13 (Pneu-C-13)
Product monograph: https://webfiles.pfizer.com/file/4c36f618-cb1a-412f-9d76-f8a7df560120?referrer=ccb731e5-4f2d-4f4a-b2dc-e5e912145fc6

Pneumococcal Conjugate 15-Valent

VAXNEUVANCE® (Pneu-C-15)

Product monograph: https://www.merck.ca/en/wp-content/uploads/sites/20/2021/04/VAXNEUVANCE-PM_E.pdf

Indication	• Children who do not have any medical or lifestyle risk factors and who present when younger than 5 years old. • Minimum age is 6 weeks old. • **This vaccine is not publicly funded for individuals 5 years and older.**
Dose / Primary Series[1]	Dose 1: 2 months of age: 0.5 mL IM Dose 2: 4 months of age: 0.5 mL IM Dose 3: 12 months of age: 0.5 mL IM
Reinforcement	N/A
Precautions	None noted in product monograph.
Contraindications	VAXNEUVANCE® is contraindicated in individuals with a history of a severe allergic reaction (e.g., anaphylaxis) to any component of the vaccine or any diphtheria toxoid-containing vaccine.
Expected reactions	**Local**: pain, swelling, redness, tenderness, induration, urticaria at injection site. **Systemic**: fever, irritability, fatigue, headache, myalgia, decreased appetite, generalized urticaria.
Vaccine components	Suspension for injection. Each 0.5 mL dose contains 32 mcg of total pneumococcal polysaccharide (2.0 mcg each of polysaccharide serotypes 1, 3, 4, 5, 6A, 7F, 9V, 14, 18C, 19A, 19F, 22F, 23F, and 33F, and 4.0 mcg of polysaccharide serotype 6B) conjugated to 30 mcg of CRM_{197} carrier protein. Non-medicinal ingredients: Each 0.5 mL dose contains 125 mcg of aluminum (as aluminum phosphate adjuvant), 1.55 mg L-histidine, 1 mg of polysorbate 20, 4.50 mg sodium chloride and water for injection. Latex-free. Preservative-free.
Effectiveness	Non-inferior to PREVNAR® 13 for similar strains. VAXNEUVANCE® may not prevent disease caused by *S. pneumoniae* serotypes that are not contained in the vaccine.

[1] If series is interrupted, refer Chapter 5, Section 1.3B *Pneu-C-20 Vaccine Schedule for Medically High-Risk Children (<5 years old) Delayed by 1 Month or More* and complete series according to age at which child re-presents using minimum intervals as noted in SIM Chapter 5 Section 2.*1 Minimum intervals for Specific Vaccines.*

Pneumococcal Conjugate 20-Valent (Pneu-C-20)

PREVNAR 20™

- Product monograph: https://www.pfizer.ca/en/our-products/prevnar-20-pneumococcal-20-valent-conjugate-vaccine-diphtheria-crm197-protein
- This vaccine is not publicly funded for individuals who do not meet publicly funded immunization eligibility criteria.

INDICATIONS:

1. **Individuals 6 weeks through 64 years old** who have at least one eligible risk factor [2]. **Refer to directives in** *Pneu-C-20 Immunization Schedules for Individuals Who Have Qualifying Medical/Lifestyle Risk Factors* (next page).
2. **Transplant patients 6 weeks and older including** hematopoietic stem cell transplant (HSCT), solid organ, Islet cell). **Refer to** SIM Ch. 7 for transplant-specific adult recommendations.

Dosage is 0.5 ml IM for all ages

High Risk Infant Series[1]	**Individuals 5-64 years**: One dose.
Dose 1: 2 months of age: 0.5 mL IM Dose 2: 4 months of age: 0.5 mL IM Dose 3: 6 months of age: 0.5 mL IM Dose 4: 12 months of age: 0.5 mL IM	

Precautions	None noted in product monograph.
Contraindications	PREVNAR 20 is contraindicated in individuals who are hypersensitive to the active substance or to any component of the vaccine, including diphtheria toxoid.
Expected reactions	**Local**: pain, swelling, redness, tenderness, induration, pruritus and urticaria at injection site, lymphadenopathy. **Systemic**: fever, irritability, fatigue, headache, myalgia, joint pain, decreased appetite, generalized rash.
Vaccine components	Each 0.5 mL dose of the vaccine is formulated to contain approximately 2.2 mcg of each of *S. pneumoniae* serotypes 1, 3, 4, 5, 6A, 7F, 8, 9V, 10A, 11A, 12F, 14, 15B, 18C, 19A, 19F, 22F, 23F and 33F saccharides, 4.4 mcg of 6B saccharide, 51 mcg CRM_{197} carrier protein, 100 mcg polysorbate 80, 295 mcg succinic acid, 4.4 mg sodium chloride, and 125 mcg aluminum as aluminum phosphate adjuvant. Latex-free. Preservative-free.
Effectiveness	Non-inferior to PREVNAR® 13 for similar strains. PREVNAR 20® may not prevent disease caused by *S. pneumoniae* serotypes that are not contained in the vaccine.
Storage and administration	Store pre-filled syringes horizontally in the refrigerator. Administer as soon as possible after being removed from the refrigerator.

[1] If series is interrupted, refer to Chapter 5, Section 1.3B *Pneu-C-20 Vaccine Schedule for Medically High-Risk Children (<5 years old) Delayed by 1 Month or More* and complete series according to age at which child re-presents using minimum intervals as noted in Chapter 5 Section 2.*1 Minimum intervals for Specific Vaccines.*

[2] **Qualifying Pneu-C-20 medical/lifestyle risk factors**

- Long-term care, personal care home or group home resident
- Acquired complement deficiency
- Asplenia (congenital, acquired, or functional)
- Cancer (must have current diagnosis and not in remission)
- Cerebrospinal fluid disorders
- Cochlear implant recipient or candidate
- Congenital immunodeficiency
- Cystic fibrosis
- Diabetes mellitus
- Heart disease (only if chronic condition)
- HSCT recipients refer to SIM Ch. 7
- HIV
- Homelessness
- Illicit substance (drug) use including injectable steroids (excludes marijuana)
- Immunosuppression related to disease or medical treatment (refer to Ch. 7 for adult transplant patients)
- Islet cell transplant candidates or recipients refer to SIM Ch. 7
- Kidney disease
- Liver disease (e.g., cirrhosis, hepatitis B, hepatitis C) and alcoholism
- Lung disease (excluding asthma unless on high dose corticosteroids)
- Neurological conditions that impede the clearance or oral/respiratory secretion
- Sickle cell disease/other hemoglobinopathies
- Solid organ transplant candidates or recipients refer to SIM Ch. 7

Pneu-C-20 Immunization Schedules for Individuals Who Have Qualifying Medical/Lifestyle Risk Factors[1]

Documented pneumococcal vaccine history determines eligibility	Age at Presentation	Pneu-C-20 Immunization Directives [4]
NO pneumococcal doses	**6 weeks-4 years**	**Refer to SIM Ch. 5 Section 1.3B.**
	5-64 years	**Provide 1 Pneu-C-20 dose.**
	+65 years	**Ineligible - Refer to Pneu-C-21 Immunization Schedules for Individuals 65 Years and Older**
Only has Pneu-C-unspecified, 7, 10, 13 **AND/OR** 15 dose(s)	**6 weeks-4 years**	• **Complete the primary series with Pneu-C-20 doses OR** • **Provide 1 dose Pneu-C-20 ≥ 8 weeks** after the final dose in the primary Pneu-C series. **Refer to SIM Ch. 5 Section 1.3B.**
	5-17 years	**Provide 1 dose Pneu-C-20 ≥ 8 weeks** after the last documented Pneu-C dose.
	18-64 years	**Provide 1 dose Pneu-C-20 ≥ 1 year** (min. 8 weeks) after the last documented Pneu-C dose.[2]
Only has Pneu-P-23 dose(s)	**2-17 years**	**Provide 1 dose Pneu-C-20 ≥1 year** after the last documented Pneu-P-23 dose.
	18-64 years	**Provide 1 dose Pneu-C-20 ≥ 5 years** (min. 1 year) after the last documented Pneu-P-23 dose.[3]
Has Pneu-C-unspecified, 7, 10, 13 **AND** Pneu-P-23 doses	**2-17 years**	**Provide 1 dose Pneu-C-20 ≥ 1 year** after the last documented Pneu-P-23 dose **AND ≥ 8 weeks** after the last documented Pneu-C dose.
	18-64 years	**Provide 1 dose Pneu-C-20 ≥ 5 years** after the last documented pneumococcal vaccine dose.
Has Pneu-C-20 dose(s)	**6 weeks-4 years**	**Ensure the primary series is completed. Refer to SIM Ch. 5 Section 1.3B.**
	5-64 years	**Ineligible for publicly funded Pneu-C-20 [4].**
Has Pneu-P-23 **AND** Pneu-C-15 doses	**2-64 years**	**Ineligible for publicly funded Pneu-C-20 [4].**
Has Pneu-C-21 dose(s)	**18-64 years**	**Ineligible for publicly funded Pneu-C-20 [4].**

[1] Qualifying Pneu-C-20 medical/lifestyle risk factors

- Long-term care, personal care home or group home resident
- Acquired complement deficiency
- Asplenia (congenital, acquired, or functional)
- Cancer (must have current diagnosis and not in remission)
- Cerebrospinal fluid disorders
- Cochlear implant recipient or candidate
- Congenital immunodeficiency
- Cystic fibrosis
- Diabetes mellitus
- Heart disease (only if chronic condition)
- HIV
- Homelessness
- Illicit substance (drug) use including injectable steroids (excludes marijuana)
- Immunosuppression related to disease or medical treatment (refer to Ch. 7 for adult transplant patients)
- Kidney disease
- Liver disease (e.g., cirrhosis, hepatitis B, hepatitis C) and alcoholism
- Lung disease (excluding asthma unless on high dose corticosteroids)
- Neurological conditions that impede the clearance or oral/respiratory secretion
- Sickle cell disease/other hemoglobinopathies

[2] An interval of 8 weeks may be considered for individuals anticipating immunosuppressive treatments or who have medical conditions that might lead to immunodeficiency.

[3] An interval of 1 year may be considered for individuals anticipating immunosuppressive treatments or who have medical conditions that might lead to immunodeficiency.

[4] **Refer to SIM Ch. 7 for** Solid organ transplant candidates/recipients, Islet cell transplant candidates/recipients, Hematopoietic stem cell transplant (HSCT) recipients.

Pneumococcal Conjugate 21-Valent (Pneu-C-21)

CAPVAXIVE®

- Product monograph available at https://www.merck.ca/en/wp-content/uploads/sites/20/2024/07/CAPVAXIVE-PM_E.pdf
- **This vaccine is not publicly funded for individuals who do not meet publicly funded immunization eligibility criteria.**

INDICATIONS **1. Individuals 65 years and older who do not have documentation of receiving previous pneumococcal vaccines (and considered non-immunized).** **2. Individuals 65 years and older who have documentation of previous pneumococcal vaccine** and have at least one eligible risk factors[1]. **Refer to directives in** *Pneu-C-21 Immunization Schedules for Individuals 65 Years and Older* (next page) **3. Hematopoietic stem cell transplant (HSCT) recipients 65 years and older [2]. Refer to SIM** Ch. 7.	
Dosage	0.5 mL IM
Precautions	None noted in product monograph.
Contra-indications	CAPVAXIVE® is contraindicated in individuals with a history of a severe allergic reaction (e.g., anaphylaxis) to any component of the vaccine including diphtheria toxoid.
Vaccine components	Each 0.5 mL dose contains a total of 84 mcg of pneumococcal polysaccharide antigen (4 mcg each of polysaccharide serotypes 3, 6A, 7F, 8, 9N, 10A, 11A, 12F, 15A, deOAc15B, 16F, 17F, 19A, 20A, 22F, 23A, 23B, 24F, 31, 33F, and 35B) conjugated to approximately 65 mcg of CRM197 carrier protein. Non-medicinal ingredients: Each 0.5 mL dose contains 1.55 mg L-histidine, 0.50 mg of polysorbate 20, 4.49 mg sodium chloride, and water for injection. Latex free. Preservative free.
Expected reactions	**Local:** injection site pain, redness and swelling. **Systemic:** fatigue, headache, myalgia, fever. **Less common:** lymphadenopathy, diarrhea, nausea, injection-site pruritus, chills, dizziness
Effectiveness	CAPVAXIVE® will not protect against other microorganisms that cause invasive disease or pneumonia and may not protect all individuals receiving the vaccine from pneumococcal disease. Pneu-C-21 generated similar immune responses as other Pneu-C vaccines for shared serotypes, and greater immune responses against all Pneu-C-21-unique serotypes (however, serotype 15C did not meet criteria for statistical superiority).
Storage and administration	Protect from light. Administer as soon as possible after being removed from the refrigerator.

[1] Qualifying Pneu-C-21 medical/lifestyle risk factors for 65+ years

- Long-term care, personal care home or group home resident
- Acquired complement deficiency
- Asplenia
- Cancer (current condition and not in remission)
- Congenital immunodeficiency
- HIV
- Immunosuppression related to disease or medical treatment (**for transplant patients** - only HSCT recipients +65 years qualify, see footnote **#2.** **SOT and Islet transplant patients are ineligible as per App. 7.9 & 7.10**).
- Kidney disease
- Sickle cell disease/other hemoglobinopathies

[2] Refer to SIM Ch. 7 for HSCT recipients who present at 65 years and older.

Pneu-C-21 Immunization Schedules for Individuals 65 Years and Older

Table A: No documented pneumococcal vaccine doses

No documented pneumococcal vaccine doses	Eligible based on age	Qualifies for 1 dose of Pneu-C-21

Table B: Pneu-C-21 Eligibility for Individuals 65 years and Older with Qualifying Risk Factors[1]

Documented pneumococcal vaccine history determines eligibility	Has ≥ 1 Qualifying Medical/ Lifestyle Risk Factor?[1, 4]	Pneu-C-21 Immunization Directives
Only has Pneu-C-unspecified, 7, 10, 13 **AND/OR** 15 dose(s)	**YES**	**Provide 1 dose Pneu-C-21 ≥ 1 year** (min. 8 weeks or 1 year) after the last documented Pneu-C dose.[2]
Only has Pneu-P-23 dose(s)	**YES**	**Provide 1 dose Pneu-C-21 ≥ 5 years** (min. 1 year) after the last documented Pneu-P-23 dose.[3]
Has Pneu-C-unspecified, 7, 10, 13 **AND** Pneu-P-23 doses	**YES**	**Provide 1 dose Pneu-C-21 ≥ 5 years** after the last documented pneumococcal vaccine dose.

Table C: Individuals 65 years and older who are **INELIGIBLE** for publicly funded Pneu-C-21 vaccine

Documented pneumococcal vaccine history determines eligibility	Has ≥ 1 Qualifying Medical/Lifestyle Risk Factor?[1, 4]	Pneu-C-21 Immunization Directives
Has Pneu-C-20 dose(s)	**YES OR NO**	**Ineligible for publicly funded Pneu-C-21.[4]**
Has Pneu-C-21 dose(s)	**YES OR NO**	**Ineligible for publicly funded Pneu-C-21.**
Has Pneu-P-23 **AND** Pneu-C-15 doses	**YES OR NO**	**Ineligible for publicly funded Pneu-C-21.[4]**
Only has Pneu-C-unspecified, 7, 10, 13 **AND/OR** 15 dose(s)	**NO**	**Ineligible for publicly funded Pneu-C-21.**
Only has Pneu-P-23 dose(s)	**NO**	**Ineligible for publicly funded Pneu-C-21.**
Has Pneu-C-unspecified, 7, 10, 13 **AND** Pneu-P-23 doses	**NO**	**Ineligible for publicly funded Pneu-C-21.**

[1] **Qualifying Pneu-C-21 medical/lifestyle risk factors for 65+ years**

- Long-term care, personal care home or group home resident
- Acquired complement deficiency
- Asplenia
- Cancer (current condition and not in remission)
- Congenital immunodeficiency
- HIV
- Immunosuppression related to disease or medical treatment (**for transplant patients** - only HSCT recipients +65 years qualify, see footnote **#4.** **SOT and Islet transplant patients are ineligible as per App. 7.9 & 7.10**).
- Kidney disease
- Sickle cell disease/other hemoglobinopathies

[2] An interval of 8 weeks may be considered for individuals anticipating immunosuppressive treatments or who have medical conditions that might lead to immunodeficiency.

[3] An interval of 1 year may be considered for individuals anticipating immunosuppressive treatments or who have medical conditions that might lead to immunodeficiency.

[4] Refer to SIM Ch. 7 for Hematopoietic stem cell transplant (HSCT) recipients who present at 65 years and older.

Poliomyelitis (IPV) (trivalent, inactivated, whole virus, Vero cell origin)

IMOVAX® Polio

Product monograph: https://www.sanofi.com/en/canada/your-health/vaccines-products

INDICATIONS NOTE: IPV must replace OPV doses documented as of April 1, 2016	**DOSE / SERIES (0.5 mL)**
1. Infants and children up to and including 3 years of age who do not require diphtheria, pertussis, tetanus, or Hib. **2**. Children 4 years to 17 years of age who do not require diphtheria or tetanus vaccine. **3.** Adults ≥18 years**.** **4**. Previously unimmunized children and adult solid organ transplant (SOT) candidates and recipients. **5**. HSCT recipients: [1]	**1. Infants and children up to and including 3 years of age:** **Dose 1**: 0.5 mL SC **Dose 2**: 0.5 mL SC given 1 month after dose 1 **Dose 3**: 0.5 mL SC given 6 months after dose 2 [2] **Dose 4**: 0.5 mL SC at school entry (min. interval is 6 months after dose 3). (This dose is not necessary if dose 3 was given on or after the 4th birthday). **2. & 3. Individuals 4 years and older that require a primary series** **Dose 1**: 0.5 mL SC **Dose 2**: 0.5 mL SC given 1 month after dose 1 **Dose 3**: 0.5 mL SC given 6 months after dose 2. **NOTE: At minimum, one dose must be given at or after 4 years of age.** **4.** Use schedule (1) or (2) above as appropriate for age **5. Dose 1**: 0.5 mL SC (1 year after HSCT) **Dose 2**: 0.5 mL SC (2 months after dose 1) **Dose 3**: 0.5 mL SC (1 year after dose 1)
REINFORCEMENT	**Reinforcement doses are not publicly funded**.
CONTRAINDICATIONS	History of anaphylactic reaction to any oral or injectable polio-containing vaccine, or to any IPV vaccine component.
VACCINE COMPONENTS	Each 0.5 mL dose contains: Type 1 (Mahoney) 40 D-antigen units; Type 2 (MEF1) 8 D-antigen units; Type 3 (Saukett) 32 D-antigen units. **Excipients**: 2-phenoxyethanol **Manufacturing Process Residuals**: Formaldehyde, residual calf serum protein. **Trace amounts of:** neomycin, streptomycin and polymyxin B, Medium 199 Hanks (without phenol red). Latex and thimerosal free.
EXPECTED REACTIONS	**Local**: Temporary pain, redness and swelling. **Systemic**: Mild fever, fatigue and headache.
EFFECTIVENESS	Immunity following injectable poliovirus vaccine series has been shown to persist for 4 or more years after a primary series.

[1] Refer to SIM, Chapter 7, *Immunization of Special Populations,* Section 3.6 *Transplant Recipient - Haematopoietic Stem Cell Transplant. Documentation of a 3-dose primary series given by any route with at least one dose received at 4 years of age or older.*

[2] Dose 3 must be given six months after dose 2 and at least after 1 year of age.

Rabies (Rab) Post-Exposure Indication
[Human Diploid Cell Vaccine (HDCV)] (Inactivated whole virus)
IMOVAX® Rabies
Product monograph: https://www.sanofi.com/en/canada/your-health/vaccines-products

INDICATIONS	**ONLY Post-Exposure Prophylaxis is publicly funded:** • As determined by Regional Medical Health Officers. • Refer to the Saskatchewan Communicable Disease Control Manual Rabies chapter.
SERIES	**1. Previously Unimmunized Individuals:** **(1A) Unimmunized immunocompetent individuals to receive a 4-dose series:** • **1 mL IM on days 0 – 3 – 7 – 14** • **Day 0**: 1 mL IM as soon as possible after exposure **PLUS Rabies Immune globulin (RabIg).** • **Days 3, 7**, and **14**: 1 mL IM. **(1B) Unimmunized immunocompromised individuals* to receive a 5-dose series**: • **1 ml IM on days 0 – 3 – 7 – 14 – 28** • **Day 0:** 1 mL IM as soon as possible after exposure **PLUS RabIg.** • **Days 3, 7, 14** and **28:** 1 mL IM. *includes those taking antimalarials and/or any immunosuppressants (e.g., corticosteroids) that can result in immunosuppression. --- **2. Previously Immunized Individuals**: • Refer to the CDC Manual Rabies chapter for information.

Rabies (Rab) Post-Exposure Indication [Human Diploid Cell Vaccine (HDCV)] (Inactivated whole virus)

IMOVAX® Rabies

RECONSTITUTION	**Package with Two Needles** 1. Attach the plunger and reconstitution needle to the syringe and reconstitute the freeze-dried vaccine by introducing the diluent provided into the vial of powder. 2. Gently swirl the contents until completely dissolved. 3. Withdraw the suspension from the vial into the syringe. 4. Remove the reconstitution needle and replace it with an appropriate needle for intramuscular injection. **Package with Attached Needle** 1. Reconstitute the freeze-dried vaccine in its vial with the diluent supplied in the syringe. 2. Gently swirl the contents until completely dissolved.
CONTRAINDICATIONS	1. There are **NO** contraindications to rabies vaccine given for post-exposure purposes**.** 2. **DO NOT GIVE RABIES VACCINE IN THE GLUTEAL REGION.** 3. Rabies vaccine and RabIg must not be administered in the same anatomical site. 4. Use separate needles and syringes for each product.
PRECAUTIONS	• Administer vaccine in an emergency room setting if history of anaphylactic reaction to a previous dose of rabies vaccine, IMOVAX® Rabies or to any of the components of IMOVAX® Rabies. • There are insufficient data regarding concurrent use of mefloquine with rabies immunization.
VACCINE COMPONENTS	Rabies virus (WISTAR Rabies PM/WI 38 1503-3M Strain), human albumin, neomycin, phenol red and may contain traces of beta propiolactone. Latex-free.
EXPECTED REACTIONS	**Local**: Pain, redness, swelling and itching at injection site. **Systemic:** Fever, nausea, headache, joint or muscle aches, fatigue, swollen lymph glands and dizziness.
SPECIAL CONSIDERATION	IMOVAX® Rabies is pink to red in color following reconstitution. Also, it does not contain any preservative and should be used immediately after reconstitution or discarded**.**
EFFECTIVENESS	After 3 pre-exposure doses, all vaccinees reached antibody levels to confer protection. 96% showed seroconversion at 5 years.

Rabies (Rab) Post-Exposure Indication [Purified Chick Embryo Cell Vaccine (PCECV)] (Inactivated) RabAvert®

Bavarian Nordic product monograph

INDICATIONS	**ONLY Post-Exposure Prophylaxis is publicly funded:** • As determined by Regional Medical Health Officers. • Refer to the Saskatchewan Communicable Disease Control Manual Rabies chapter.
SERIES	**1. Previously Unimmunized Individuals:** **(1A) Unimmunized immunocompetent individuals to receive a 4-dose series:** • **1 mL IM on days 0 – 3 – 7 – 14** • **Day 0**: 1 mL IM as soon as possible after exposure **PLUS Rabies Immune globulin (RabIg).** • **Days 3, 7**, and **14**: 1 mL IM. **(1B) Unimmunized immunocompromised individuals* to receive a 5-dose series**: • **1 ml IM on days 0 – 3 – 7 – 14 – 28** • **Day 0:** 1 mL IM as soon as possible after exposure **PLUS RabIg.** • **Days 3, 7, 14** and **28:** 1 mL IM. *includes those taking antimalarials and/or any immunosuppressants (e.g., corticosteroids) that can result in immunosuppression. --- **2. Previously Immunized Individuals**: • Refer to the CDC Manual Rabies chapter for information.

Rabies (Rab) Post-Exposure Indication
[Purified Chick Embryo Cell Vaccine (PCECV)] (Inactivated)

RabAvert®

RECONSTITUTION	1. Use the **longer of the 2 needles supplied** (21g x 1.5") to withdraw the entire contents of the sterile diluent into the syringe. 2. Insert the needle at a 45° angle and slowly inject the entire contents of the diluent into the vaccine vial. 3. Mix gently to avoid foaming. Unscrew the syringe from the needle to eliminate negative pressure. 4. Reinsert the syringe into the needle. Withdraw the total amount of reconstituted vaccine into the syringe. 5. **Replace the long needle with the smaller needle (25g x 1") for IM injection.**
CONTRAINDICATIONS	1. There are **NO contraindications** to rabies vaccine given for post-exposure purposes**.** 2. **DO NOT GIVE RABIES VACCINE IN THE GLUTEAL REGION.** 3. Rabies vaccine and RabIg must not be administered in the same anatomical site. 4. Use separate needles and syringes for each product
PRECAUTIONS	• Administer vaccine in an emergency room setting if history of anaphylactic reaction to a previous dose of rabies vaccine, RabAvert®, eggs or egg products, or to any of the components of RabAvert®. • There are insufficient data regarding concurrent use of mefloquine with rabies immunization.
VACCINE COMPONENTS	Freeze-dried rabies antigen, polygeline, human serum albumin, neomycin, chlortetracycline, amphotericin B, ovalbumin, potassium glutamate, sodium EDTA and may contain traces of beta propiolactone.
EXPECTED REACTIONS	**Local**: Pain, redness, swelling and itching at injection site. **Systemic:** Fever, nausea, headache, joint or muscle aches, fatigue, swollen lymph glands and dizziness.
SPECIAL CONSIDERATION	RabAvert® does not contain a preservative and should be used immediately after reconstitution or discarded.
EFFECTIVENESS	Antibodies develop 7 days after 2nd dose and persist for at least 5 years after the third dose.

Respiratory Syncytial Virus (RSV) (RSVpreF) (stabilized prefusion F protein subunit, bivalent)
ABRYSVO®
Product monograph: https://www.pfizer.ca/en/our-products/abrysvo-respiratory-syncytial-virus-stabilized-prefusion-f-dubunit-vaccine

ELIGIBILITY	Long term care (LTC) and Personal Care Home (PCH) residents aged 60 years and older who have never received an RSV vaccine dose.
DOSE	**One dose of 0.5 mL IM** **After reconstitution**: • Abrysvo® should be administered within 4 hours after reconstitution. • Store the reconstituted vaccine between 15°C and 30°C. • Do not freeze reconstituted vaccine
SPECIAL CONSIDERATION	The duration of protection of RSV vaccine is expected to be at least three years.
CONTRAINDICATIONS	Abrysvo® is contraindicated in individuals who are hypersensitive to this vaccine or to any ingredient in the formulation, including any non-medicinal ingredient, or component of the container.
VACCINE COMPONENTS	60 mcg of each stabilized RSV prefusion F antigens (A and B), 22.5 mg mannitol, 0.08 mg polysorbate 80, 1.1 mg sodium chloride, 11.3 mg sucrose, 0.11 mg tromethamine, 1.04 mg trometamol hydrochloride, mannitol, polysorbate 80, sodium chloride, sucrose, tromethamine, trometamol hydrochloride and sterile water as the diluent.
POSSIBLE and EXPECTED REACTIONS	**Local**: Pain, redness, swelling. **Systemic**: Fever, fatigue, headache, muscle pain, nausea, joint pain, diarrhea, vomiting. The results of a post-marketing observational study in individuals ≥65 years of age suggest an increased risk of Guillain-Barré syndrome during the 42 days following vaccination with Abrysvo®. Available evidence is insufficient to establish a causal relationship. Healthcare professionals should be alert to signs and symptoms of Guillain-Barré syndrome to ensure correct diagnosis, to initiate adequate supportive care and treatment, and to rule out other causes.

Non-publicly funded indications:

- Active immunization of pregnant individuals from 28 through 36 weeks gestational age for the prevention of lower respiratory tract disease (LRTD) and severe LRTD caused by respiratory syncytial virus (RSV) in infants from birth through 6 months of age.
- Active immunization for the prevention of LRTD caused by RSV in individuals 60 years of age and older who are not RSV vaccine-naïve LTC or PCH residents.
- Active immunization for the prevention of LRTD caused by RSV in individuals 18-59 years of age who are at increased risk for LRTD caused by RSV.

Respiratory Syncytial Virus (RSV) (RSVPreF3) (recombinant, AS01E adjuvanted**)**
AREXVY®
Product monograph: https://ca.gsk.com/en-ca/products/arexvy/

ELIGIBILITY	Long term care (LTC) and Personal Care Home (PCH) residents aged 60 years and older who have never received an RSV vaccine dose.
DOSE	**One dose of 0.5 mL IM** **After reconstitution**: • Administer AREXVY® promptly or store in the refrigerator (2°C – 8°C) or at room temperature up to 25°C for use within 4 hours. • If not used within 4 hours, the reconstituted vaccine should be discarded
SPECIAL CONSIDERATION	The duration of protection of RSV vaccine is expected to be at least three years.
CONTRAINDICATIONS	AREXVY® is contraindicated in individuals who are hypersensitive to the active ingredients or to any ingredients in the formulation, including any non-medicinal ingredients, or components of the container.
VACCINE COMPONENTS	120 mcg Respiratory Syncytial Virus PreF3 (RSVPreF3), 25 mcg *Quillaja saponaria* Molina, fraction 21 (QS-21), 25 mcg 3-O-desacyl-4'-monophosphoryl lipid A (MPL), Cholesterol, dioleoyl phosphatidylcholine, dipotassium phosphate, disodium phosphate anhydrous, MPL2, polysorbate 80, potassium dihydrogen phosphate, QS-212, sodium chloride, trehalose dihydrate, and water for injection.
POSSIBLE and EXPECTED REACTIONS	**Local**: Pain, redness, swelling. **Systemic**: Fever, fatigue, headache, muscle pain, nausea, joint pain, diarrhea, vomiting, rhinorrhea. In a US post-marketing observational study over 1 RSV season in individuals aged 65 years or older, an increased risk of Guillain-Barré syndrome (incidence rate ratio of 2.46 (95% CI: 1.19, 5.08; estimated 7 excess cases per million doses administered) was observed during the 42 days following vaccination with AREXVY®. The background risk of GBS in a study population influences the excess GBS case estimate and may differ between studies, precluding direct comparison to excess GBS case estimates from other vaccine studies or populations. The analyses of GBS diagnoses in claims data were supported by analyses of GBS cases confirmed by medical record review and by analyses of GBS cases in individuals who received AREXVY® alone, without other concomitantly administered vaccines. While the results of this observational study suggests an increased risk of GBS with AREXVY®, available evidence is insufficient to establish a causal relationship.

Non-publicly funded indications:

- The prevention of lower respiratory tract disease (LRTD) caused by respiratory syncytial virus in
  - adults 60 years of age and older who are not RSV vaccine-naïve LTC or PCH residents.
  - adults 50 through 59 years of age who are at increased risk for RSV disease.

Respiratory Syncytial Virus (RSV) (mRNA-1345)

mRESVIA®
Product monograph: https://www.modernatx.com/en-CA/products

Indications:

- mRESVIA (Respiratory Syncytial Virus (RSV) mRNA Vaccine) is indicated for active immunization for the prevention of lower respiratory tract disease (LRTD) caused by respiratory syncytial virus (RSV) in:
  - adults 60 years of age and older.
  - adults 18 through 59 years of age who are at increased risk for LRTD caused by RSV.

Rotavirus vaccine (human rotavirus, live, attenuated, oral vaccine)

[Not publicly funded in SK but administered in other provinces and territories]

ROTARIX™ (Rot-1)

Product monograph: https://ca.gsk.com/media/6256/rotarix_pm_en.pdf

DOSE / PRIMARY SERIES [1, 2]
Dose 1: 1.5 mL PO (entire contents of applicator) at 2 months of age. • **Dose 1 must be received between 6 weeks and 14 weeks 6 days of age.** **Dose 2**: 1.5 mL PO (entire contents of applicator) at 4 months of age. • **Dose 2 must be received by 8 months minus 1 day old.**

[1] The minimum interval is 4 weeks between both Rot-1 doses.

[2] There are no data on the interchangeability of RotaTeq® and ROTARIX™ vaccines. Whenever possible, the series should be completed with the same product. However, if the product used for a previous dose(s) is not known, complete the series with the available product. If any dose in the series was RotaTeq®, a total of 3 doses of vaccine should be administered provided the age limit of 8 months 0 days is not exceeded.

- **Infants who received two ROTARIX™ doses on schedule DO NOT REQUIRE FURTHER RotaTeq doses.** However, if the product used for a previous dose(s) is not known, complete the series with the available product.
- If any dose in the series was RotaTeq®, a total of 3 doses of rotavirus vaccine should be administered provided the age limit of 8 months minus 1 day is not exceeded.

Dose	**Possible rotavirus vaccine combinations**						
1st	Rot-5	Rot-5	Rot-5	Rot-5	Rot-1	Rot-1	Rot-1
2nd	Rot-5	Rot-5	Rot-1	Rot-1	Rot-5	Rot-5	Rot-1
3rd	Rot-5	Rot-1	Rot-5	Rot-1	Rot-1	Rot-5	N/A
Status	**Done**	**Done**	**Done**	**Done**	**Done**	**Done**	**Done**

Rotavirus (oral live viral pentavalent human-bovine reassortant)

RotaTeq® (Rot-5)

Product monograph: https://www.merck.ca/en/wp-content/uploads/sites/20/2021/04/ROTATEQ-PM_E.pdf)

- **Under no circumstances should RotaTeq® be injected.**
- **RotaTeq® is to be administered orally without mixing with any other vaccines or solutions.**
- **Do not reconstitute or dilute.**

INDICATIONS [1]	**DOSE / PRIMARY SERIES** [2, 3, 4, 5, 6, 8]
SCHEDULE for 6 weeks through 32 weeks old.	**Dose 1:** 2 mL PO (entire contents of applicator) at 2 months of age. • **Dose 1 must be received between 6 weeks and 14 weeks 6 days of age.** **Dose 2**: 2 mL PO (entire contents of applicator) at 4 months of age. **Dose 3**: 2 mL PO (entire contents of applicator) at 6 months of age. • **Dose 3 must be received by 8 months minus 1 day old.**
REINFORCEMENT	Not indicated at this time.
CONTRA-INDICATIONS	• History of anaphylactic reaction to a previous dose of a rotavirus-containing vaccine or to any RotaTeq® vaccine component. • Infants who have a history of intussusception. • **HIV is not a contraindication to receiving a rotavirus vaccine series**. Infants with a known or suspected immunocompromising condition **excluding HIV should** not receive RotaTeq® without consultation with a specialist or expert in the condition. • Infants diagnosed with Severe Combined Immunodeficiency (SCID) disorder or who have a family history of SCID or recurrent, unexplained early deaths in the family. • Infants with a history of a chronic gastrointestinal tract condition or disease, or any uncorrected congenital malformations (e.g., Meckel's diverticulum). • Infants whose mothers took monoclonal antibody medications during pregnancy. Refer to Chapter 8 Administration of Biological Products *Appendix 8.2 Potentially Immunosuppressive Biologic Agents*
PRECAUTIONS	1. Preterm infants can receive rotavirus vaccine if: a) they are chronologically aged 6 weeks and; b) are clinically stable. If the infant is in hospital, the vaccine can only be administered at the time of discharge or after discharge from the neonatal intensive care unit, nursery, etc. 2. Acute gastroenteritis: in infants with moderate to severe gastroenteritis, rotavirus vaccine should be deferred until the condition improves unless deferral will result in scheduling of the first dose at more than 14 weeks 6 days of age. 3. Excretion of the vaccine virus in the stools is known to occur after vaccination and lasts for 10 days on average with peak excretion around the 7th day. Contacts of recent vaccinees should be advised to observe careful hygiene (including washing their hands) when changing children's diapers.
VACCINE COMPONENTS [7]	Human-bovine rotavirus reassortants G1, G2, G3, G4, and P1A, sucrose, sodium citrate dihydrate, sodium phosphate monobasic monohydrate, sodium hydroxide, polysorbate 80, diluent and Vero cell culture media. Trace amounts of fetal bovine serum may be present. DNA fragments from porcine circoviruses (PCV) 1 and 2 have been detected in RotaTeq®. The source is porcine-derived material used in the manufacture of the vaccine. PCV-1 and PCV-2 are not known to cause disease in humans. Preservative-free, thimerosal-free and latex-free.

Rotavirus (oral live viral pentavalent human-bovine reassortant)

RotaTeq® (Rot-5)

(Merck Canada Inc. 2023 monograph available at: https://www.merck.ca/en/wp-content/uploads/sites/20/2021/04/ROTATEQ-PM_E.pdf)

EXPECTED REACTIONS	• Common temporary reactions such as fever, diarrhea, and vomiting may occur within 1 week after immunization. • Less common temporary reactions include irritability, loss of appetite, flatulence (gas), and abdominal pain. • Intussusception occurs in about 34 out of 100,000 babies in their first year. The current rotavirus vaccines have demonstrated a small increased risk of intussusception (1 to 7 cases per 100,000 doses). Intussusception related to rotavirus vaccines is extremely rare.
EFFECTIVENESS	In phase III clinical studies, 92.9% to 100% of recipients of RotaTeq® achieved a significant rise in serum anti-rotavirus IgA after a three-dose regimen.

NOTE: Refer to SIM chapter 8 *Appendix 8.4 Oral Vaccine Administration via Enteral Tube*.

[1] Infants 6 weeks through 32 weeks old who have had rotavirus gastroenteritis before starting or completing the full RotaTeq® series should still initiate or complete the RotaTeq® series because the initial infection frequently provides only partial immunity.

[2] The minimum interval is 4 weeks between all Rot-5 doses.

[3] If an infant spits out or regurgitates any of the Rot-5 dose no replacement dose should be administered.

[4] There are no restrictions on the infant's consumption of food or liquid, including breast milk, either before or after immunization with RotaTeq® vaccine.

[5] RotaTeq® vaccine may be administered at any time before, concurrently with, or after administration of any live vaccine and blood product, including antibody-containing products.

[6] There are no data on the interchangeability of RotaTeq® and ROTARIX™ vaccines. Whenever possible, the series should be completed with the same product.

- **Infants who received two ROTARIX™ doses on schedule DO NOT REQUIRE FURTHER RotaTeq doses.** However, if the product used for a previous dose(s) is not known, complete the series with the available product.
- If any dose in the series was RotaTeq®, a total of 3 doses of rotavirus vaccine should be administered provided the age limit of 8 months minus 1 day is not exceeded.

Dose	Possible rotavirus vaccine combinations						
1st	Rot-5	Rot-5	Rot-5	Rot-5	Rot-1	Rot-1	Rot-1
2nd	Rot-5	Rot-5	Rot-1	Rot-1	Rot-5	Rot-5	Rot-1
3rd	Rot-5	Rot-1	Rot-5	Rot-1	Rot-1	Rot-5	N/A
Status	**Done**	**Done**	**Done**	**Done**	**Done**	**Done**	**Done**

[7] DNA fragments from porcine circoviruses (PCV) 1 and 2 have been detected in RotaTeq®. The source is porcine-derived material used in the manufacture of the vaccine. PCV-1 and PCV-2 are not known to cause disease in humans.

[8] For infants in whom the first dose of RV vaccine is inadvertently administered at age 15 weeks or older, the rest of the series should be completed with a minimum of 4 weeks between each dose, and all doses should be administered before 8 months minus 1 day of age (CIG).

Smallpox and Mpox (SMV)
Modified Vaccinia Ankara-Bavarian Nordic® (live-attenuated, non-replicating)

IMVAMUNE®

Product monograph: https://bnvaccines.ca/

Composition/Platform Vaccine Type, Vaccine Efficacy	• Each single-dose vial of liquid-frozen IMVAMUNE is formulated to have a titer of at least 0.5 x 10^8 infectious units (Inf.U) per 0.5 mL (1 dose) of Modified Vaccinia Ankara-Bavarian Nordic (MVA-BN). • Tris buffer (Tris-hydroxymethyl-amino methane, sodium chloride, water for injection and hydrochloric acid), Trometamol (Tris-hydroxymethyl-amino methane), sodium chloride, water for injection. The vaccine contains trace amounts of host cell DNA and protein, benzonase, gentamicin and ciprofloxacin. • No adjuvants or preservatives
Dosage by Route	**0.5 ml Subcutaneous (SC) injection** ❖ 0.1 ml Intradermal (ID) injection for **only as dose sparing strategy** when there is limited vaccine supply and a second dose is required NOTE: Off-label ID administration is **only for immunocompetent adults** when given as a second dose following a first dose given subcutaneously.
ID Route Administration	• Those <18 years of age, at risk of keloid scars, or moderately to severely immunocompromised should be immunized using the subcutaneous route of administration only.
Series and eligibility	• **Those with a documented history of prior mpox infection need not be vaccinated.** **Post-exposure Prophylaxis (PEP)** (1 dose; see second bullet re second dose) • For individuals with high-risk exposures to a probable or confirmed case of mpox, or within a setting where transmission is happening, PEP should be offered as soon as possible and within 4 days of last exposure and can be considered up to 14 days since last exposure. PEP should not be offered to individuals who are symptomatic and who meet the definition of suspect, probable or confirmed case. • After 28 days, if an individual is assessed as having a predictable ongoing risk of exposure, a second dose may be offered in consultation with a Medical Health Officer. A second dose should not be offered to individuals who are symptomatic and therefore after medical evaluation meet suspect, probable or confirmed mpox case definitions. • For individuals who had received a live replicating 1st or 2nd generation smallpox vaccine in the past and who sustain a high-risk exposure to a probable or confirmed case of mpox, a single dose may be offered (i.e. as a booster dose) at least 28 days after the latest live replicating smallpox vaccine dose. **Pre-exposure Prophylaxis (PrEP)** (2 doses four weeks apart) • **Personnel who work in research laboratory settings and who are at high risk of occupational exposure** to replicating orthopoxviruses that pose a risk to human health ➢ Additional doses may be offered to personnel working in a research laboratory setting who remain at risk of occupational exposure, with a minimal interval of every 2 years. • **High risk individuals that include:** ➢ Men who have sex with men (MSM) who meet one or more of the following criteria: – have more than one partner

	– are in a relationship where at least one of the partners has other sexual partners – have had a confirmed sexually transmitted infection acquired in the last year – have engaged in sexual contact in sex-on-premises venues ➢ Sexual partners of individuals who meet the criteria above ➢ Individuals who identify as sex workers regardless of gender, sex assigned at birth, or sexual orientation ➢ Staff or volunteers in sex-on-premises venues where workers may have contact with fomites potentially contaminated with mpox ➢ Travellers who engage in risky sexual behaviours regardless of gender, sex assigned at birth, or sexual orientation ➢ Individuals who anticipate experiencing any of the above scenarios • ***Travellers who are high risk individuals (as outlined above)*** • **Travelers to an area with ongoing community transmission of MPXV clade I** (as per PHAC's Travel health notices, Mpox: Advice for travellers) and anticipate either prolonged close contact (such as sharing accommodation) with people who reside in that area or sexual contact with people who reside in, or spend extended time in, that area. • ***Travellers who are Canadian healthcare professionals*** *in advance of deployment to support the mpox clade I outbreak in countries where there is a level 2 travel health notice for mpox.* ➢ *Healthcare workers being deployed to these regions should receive 2 doses administered at least 28 days apart, in advance of deployment.* • Immunization may be considered on an individual basis [for non-international travelling] healthcare workers based on a high risk of frequent exposure. **Imvamune® may be offered to the following individuals who meet eligibility criteria:** • Those who are pregnant or breastfeeding and who are at risk. • Those who are immunocompromised due to disease or treatment and are at risk. • Those younger than 18 years of age where infection could have significant negative outcomes. **For immunocompetent individuals** who have received a live replicating first or second generation smallpox vaccine in the past and who are at high risk for occupational exposure, a single dose may be offered (i.e. as a booster dose), rather than the two dose primary vaccine series. This single dose should be given at least two years after the latest live replicating smallpox vaccine dose.
Contraindications	• Known severe hypersensitivity to a previous vaccine dose or any component of the vaccine. • Egg-allergic individuals may be immunized except if there is a known previous anaphylactic reaction to egg. Egg-allergic vaccine recipients should be kept under observation for 30 minutes following the administration of this vaccine. • Anaphylaxis to previous vaccine dose. If re-vaccinated, vaccine administration should be done in a controlled setting with expertise and equipment to manage anaphylaxis. Individuals should be observed for at least 30 minutes after re-vaccination.
Precautions	NACI (2022-06-10): • Myocarditis: First generation *orthopoxvirus* vaccines and mRNA COVID-19 vaccines both have a potential risk of cardiac adverse events (myocarditis). Risk for myo- or pericarditis with the newer generation non-replicating attenuated virus vaccine Imvamune® is still unknown. It would be prudent to wait for a period of at least 4 weeks **before** or **after** the administration of mRNA COVID-19 vaccine in order to prevent erroneous attribution of an AEFI to one particular vaccine or the other. This

	suggested minimum waiting period between vaccines is **precautionary** at this time. Protection from mpox exposure should be prioritized and recent mRNA vaccine receipt should not delay Imvamune® PEP or PrEP if protection is urgent. • In consultation with a physician, the benefit of protection against infection should be weighed against the risk of recurrent myocarditis for individuals with a history of myocarditis/pericarditis linked to a previous dose of live replicating 1st and 2nd generation smallpox vaccine and/or Imvamune®; a precautionary approach is warranted at this time until more information is available. • Imvamune® given as PEP or PrEP should not be delayed due to recent receipt of an mRNA COVID-19 vaccine. If vaccine timing can be planned (i.e. prior to employment within a research laboratory), NACI recommends that Imvamune® be given at least 4 weeks after or before an mRNA vaccine for COVID-19. • Individuals with the following conditions should discuss vaccination with their physician, who will be able to advise on safe vaccination or on alternative preventative measures to avoid infection with smallpox, mpox or other orthopoxviruses: Pregnant or breast-feeding women.
Possible reactions	• The adverse reactions listed below have been observed during clinical studies. The most common side effects reported were at the injection site. Most of the reported adverse reactions are mild to moderate in intensity and resolving without intervention within seven days following vaccination. • Local reactions may last longer/be more common if the vaccine was administered by the ID route. **Very common side effects** reported in at least 1 in 10 persons were: • Pain, redness, swelling, hardness, or itching at the injection site. • Tiredness, headache, aching muscles, nausea. **Common side effects** reported in at least 1 in 100 but less than 1 in 10 persons were: • Nodule, discolouration, bruising, warmth at the injection site, chills, fever, pain in extremity, joint pain, or loss of appetite. **Uncommon side effects** reported in at least 1 in 1000 but less than 1 in 100 persons were: • Irritation, bleeding, scaling, inflammation, sensitivity disorder, or reaction at the injection site. • Underarm swelling, malaise, flushing, axillary pain, chest pain, dizziness, sensibility disorder, musculoskeletal stiffness, back pain, neck pain, rash, pruritus, dermatitis, skin discolouration, diarrhea, vomiting, dry mouth, throat pain, flu-like symptoms, cough, sleep disorder, clinically not relevant increase of cardiac enzymes, hepatic enzyme increased, white blood cell count decreased, mean platelet volume decreased, contusion, nose and throat infection, upper respiratory tract infection or temporarily enlarged lymph nodes. **Rare side effects** reported in less than 1 in 1000 persons were: • Rash, anesthesia, dryness, movement impairment or vesicles at the injection site. • Weakness, influenza like illness, oedema peripheral, migraine, peripheral nerve sensations, muscle spasms, musculoskeletal pain, muscular weakness, urticarial, ecchymosis, increased sweating, night sweats, subcutaneous nodule, angioedema, abdominal pain, increased heartbeat, sinusitis, pink eye, mouth and throat pain, influenza, white blood cell count increased, vertigo.
Other Considerations	• IMVAMUNE is a non-replicating live vaccine and it can be co-administered with or given any time before or after another live vaccine, an immune globulin product or tuberculin skin testing. • Cardiac AESIs were reported to occur in 1.4% (91/6,640) of IMVAMUNE recipients and 0.2% (3/1,206) of placebo recipients who were smallpox vaccine-naïve. Cardiac

<table>
<tr><td></td><td>AESIs were reported to occur in 2.1% (16/762) of IMVAMUNE recipients who were smallpox vaccine-experienced. Replicating smallpox vaccines have been associated with myopericarditis. If a vaccinated subject exhibits signs and symptoms potentially associated with a cardiac disorder (e.g. chest pain or discomfort, dyspnea, or palpitations), ECG and troponin I tests should be performed. In case of ECG changes or troponin I elevations, further cardiologic examination should be performed.
• Persons who have atopic dermatitis may have more intense reactions or have a flare up after getting this vaccine.
• The safety profile of IMVAMUNE® in immune compromised subjects has been shown to be comparable to that recorded for healthy individuals. IMVAMUNE has been studied in more than 690 subjects infected with HIV to evaluate its immunogenicity and safety in an immunocompromised population. Since HIV directly infects T helper cells, and also indirectly impairs other immune system responses, HIV infection can be considered as being exemplary also for other forms of immunodeficiency.</td></tr>
<tr><td>Storage and Stability</td><td>Table 1: Approved Imvamune shelf life in Canada for storage at -20°C, -50°C and -80°C from date of manufacture
<table>
<tr><th>Storage temperature</th><th>Approved shelf life from date of manufacture</th></tr>
<tr><td>-20°C ± 5°C</td><td>3 years</td></tr>
<tr><td>-50°C ± 10°C</td><td>5 years</td></tr>
<tr><td>-80°C ± 10°C</td><td>9 years</td></tr>
</table>
Table 2. Approved Imvamune shelf life in Canada for storage at +2°C to +8°C
<table>
<tr><th>Storage temperature</th><th>Approved shelf life</th></tr>
<tr><td colspan="2">After prior storage at -20°C or -80°C (if within approved respective shelf-life)</td></tr>
<tr><td>+2°C to +8°C</td><td>2 months (8 weeks)</td></tr>
</table>
Table 3. Total allowable time for interim shipment and storage at -20°C following long-term storage at -80°C
<table>
<tr><th>Previous Long-Term Storage Temperature</th><th>Total number of cumulative days allowable at -20°C</th></tr>
<tr><td>-80°C ± 10°C (within 9-year shelf life)</td><td>3 months (91 days)</td></tr>
</table></td></tr>
<tr><td>Shipment & Temperature Excursions</td><td>Refer to the Storage and Handling of IMVAMUNE Vaccine work standard, and Imvamune: Storage temperatures, shelf life, shipment and supportive temperature excursion information.</td></tr>
<tr><td>Administration and Disposable</td><td>• Thaw in the refrigerator (2-8C) or at room temperature.
• To ensure homogeneity upon thawing, the vial should be swirled gently (not shaken) for at least 30 seconds.
• After thawing, the drug product should appear as a pale milky colored homogeneous suspension. Visually inspected for any foreign particulate matter prior to administration. In case of foreign particulate matter being visible, the vaccine must not be used.
• If a vial is used for multiple doses, it should be discarded after 6 hours following first puncture.
• Do not refreeze a vial once it has been thawed.
• Store in the original package to protect from light.
• Do not use after the expiry date shown on the label, unless batch certification documentation allows for use based on an updated expiry date.</td></tr>
</table>

Reference:

- NACI (September 2022). NACI Rapid Response – Update guidance on the use of Imvamune® for the prevention of mpox https://publications.gc.ca/collections/collection_2025/aspc-phac/HP40-389-2025-eng.pdf
- Imvamune: Storage temperatures, shelf life, shipment and supportive temperature excursion information (Feb. 7, 2025) https://www.canada.ca/en/public-health/services/diseases/mpox/technical-documents/imvamune-storage-temperatures-shelf-life-shipment-temperature-excursion.html

Tetanus-Diphtheria (Td) (Adsorbed)

Td Adsorbed

Product monograph: https://www.sanofi.com/en/canada/your-health/vaccines-products

INDICATIONS (≥7 years old) [1, 2] For those who have a contraindication to a pertussis-containing vaccine.	**DOSE** 0.5 mL IM
CONTRAINDICATIONS 1. History of anaphylactic reaction to a previous dose of any tetanus or diphtheria-containing vaccine, or to any Td vaccine component. 2. When a contraindication exists to tetanus toxoid and a client sustains a major or unclean wound, TIg should be given • Refer to *Tetanus Immune Globulin* (TIg) in this chapter. • Refer to Chapter 5, Section 3.7, *Tetanus Prophylaxis in Wound Management.* 3. History of Guillain-Barré syndrome (GBS) occurring within 6 weeks of receipt of a tetanus-containing vaccine.	
VACCINE COMPONENTS Tetanus toxoid, diphtheria toxoid. Latex and thimerosal free. • **Td Adsorbed with 2-phenoxyethanol (Preservative):** Aluminum Phosphate (adjuvant) (1.5 mg); 2-Phenoxyethanol (0.6% v/v) and Isotonic solution of Sodium Chloride in Water for Injection (q.s. to 0.5 mL). Formaldehyde is present in trace amounts. • **Td Adsorbed (Preservative Free):** Aluminum Phosphate (adjuvant) (1.5 mg); saline 0.9% , and Water for Injection. Formaldehyde is present in trace amounts.	
EXPECTED REACTIONS **Local:** Pain, swelling, redness at injection site. **Systemic**: Fatigue, headache, fever, dizziness, or sore or swollen joints.	
SPECIAL CONSIDERATION For wound prophylaxis, Td and TIg are administered using separate syringes and different sites.	
EFFECTIVENESS May not protect 100% of susceptible individuals.	

[1] Refer to Chapter 5, Section 3.7, Tetanus Prophylaxis in Wound Management.

[2] Tetanus toxoid should not be given routinely to clients who have received a tetanus-containing vaccine in the previous 5 years. Refer to Chapter 5, Section 2.1, *Minimum Intervals for Specific Vaccine Series.*

Tetanus-Diphtheria-acellular Pertussis (Tdap)

ADACEL®

Product monograph: https://www.sanofi.com/en/canada/your-health/vaccines-products

INDICATIONS, DOSES and SERIES [*, 1, 2, 3] (0.5 mL IM) (Min. age 4 years old)	
1. Wound Management [1] **2.** Booster (5th) dose at age 4-6 years (school entry) who have met polio vaccine requirements. **3.** Reinforcement dose for Grade 8 students. [2] **4.** Reinforcement dose for adults every 10 years **5.** Pregnant women: Tdap in every pregnancy, ideally between 27-32 weeks gestation. [4] **6.** Unimmunized individuals 7+ years who do not require IPV: 1. Dose 1 2. Dose 2: 1 months after 1st dose 3. Dose 3: 6 months after 2nd dose **7.** Children 7+ and Adolescents who do not require IPV: **A.** Booster dose for those who missed receiving the school entry booster dose. **B.** Incompletely immunized children and adolescents [3]: a. **If the first dose of DTaP-containing vaccine was administered before the 1st birthday**, administer remaining dose(s) in order to complete a 4-dose primary series given as: 1. Dose 1 was administered before the 1st birthday 2. Dose 2: 1 month after 1st dose 3. Dose 3: 1 month after 2nd dose 4. Dose 4: 6 months after 3rd dose (must be given ≥ 4 years old) b. **If the first dose of DTaP-containing vaccine was administered after the 1st birthday**, administer remaining dose(s) in order to complete a 3-dose primary series given as: 1. Dose 1 was administered after the 1st birthday 2. Dose 2: 1 month after 1st dose 3. Dose 3: 6 months after 2nd dose (must be given ≥ 4 years old)	
REINFORCEMENT	Adults every 10 years
PRECAUTION	Acellular pertussis-containing vaccines may be administered to clients with the following conditions once a treatment regimen has been established and their condition has stabilized: • Progressive or unstable neurologic disorder (including infantile spasms for DTaP) • Uncontrolled seizures • Progressive encephalopathy
CONTRA-INDICATIONS	1. Children younger than 4 years old. 2. History of anaphylactic reaction to a previous dose of any tetanus, diphtheria or pertussis-containing vaccine, or to any Tdap vaccine component. 3. When a contraindication exists to tetanus toxoid and a client sustains a major or unclean wound, TIg should be given. Refer to *Tetanus Immune Globulin* (TIg) in this chapter. [1] 4. History of Guillain-Barré syndrome (GBS) occurring within 6 weeks of receipt of a tetanus-containing vaccine. 5. Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) not attributable to another identifiable cause within 7 days after receiving a dose of a pertussis-containing vaccine. 6. Individuals who have experienced other neurological complications following an earlier immunization against diphtheria and/or tetanus.

Tetanus-Diphtheria-acellular Pertussis (Tdap) **ADACEL®**	
VACCINE COMPONENTS	Tetanus toxoid, diphtheria toxoid, acellular pertussis [pertussis toxoid (PT), filamentous haemagglutinin (FHA), pertactin (PRN), fimbriae types 2 and 3 (FIM)]. **Excipients**: Aluminum phosphate (adjuvant), 2-phenoxyethanol (not present in the preservative-free formulation). **Manufacturing residuals**: Formaldehyde and glutaraldehyde are present in trace amounts. Latex, antibiotic and thimerosal free.
EXPECTED REACTIONS	**Local**: pain, redness and swelling at the injection site. **Systemic:** fatigue, headache, mild fever, dizziness, body aches or nausea.
EFFECTIVENESS	93-100% show protective levels for at least 5 years

***** According to the National Advisory Committee on Immunization (NACI), there is no upper age limit for the administration of Tdap. This differs from the information in the Tdap product monographs.

[1] Refer to Chapter 5, Section 3.7, *Tetanus Prophylaxis in Wound Management*.

[2] Children who complete their primary series or receive a booster dose of Tdap after their 11th birthday, do not require an additional dose of Tdap in Grade 8. See Chapter 5, Appendix 5.3 *Grade 8 Tdap Algorithm*.

[3] There is no minimum interval between a dose of Td and Tdap when Tdap is being given for pertussis protection, especially if primary pertussis series is incomplete for age.

[4] Refer to Chapter 7 *Appendix 7.7: Tdap Immunization Decision Chart for Pregnant Women*.

Tetanus-Diphtheria-acellular Pertussis (Tdap)

BOOSTRIX®

Product monograph available at: https://ca.gsk.com/media/6234/boostrix.pdf

INDICATIONS, DOSES and SERIES [*, 1, 2, 3] (0.5 mL IM) (Min. age 4 years old)	
1. Wound Management [1] **2.** Booster (5th) dose at age 4-6 years (school entry) who have met polio vaccine requirements. **3.** Reinforcement dose for Grade 8 students. [2] **4.** Reinforcement dose for adults every 10 years **5.** Pregnant women: Tdap in every pregnancy, ideally between 27-32 weeks gestation. [4] **6.** Unimmunized individuals 7+ years who do not require IPV: 1. Dose 1 2. Dose 2: 1 months after 1st dose 3. Dose 3: 6 months after 2nd dose **9.** Children 7+ and Adolescents years of age who do not require IPV: **A.** Booster dose for those who missed receiving the school entry booster dose. **B.** Incompletely immunized children and adolescents [3]: a. **If the first dose of DTaP-containing vaccine was administered before the 1st birthday**, administer remaining dose(s) in order to complete a 4-dose primary series given as: 1. Dose 1 was administered before the 1st birthday 2. Dose 2: 1 month after 1st dose 3. Dose 3: 1 month after 2nd dose 4. Dose 4: 6 months after 3rd dose (must be given ≥ 4 years old) b. **If the first dose of DTaP-containing vaccine was administered after the 1st birthday**, administer remaining dose(s) in order to complete a 3-dose primary series given as: 1. Dose 1 was administered after the 1st birthday 2. Dose 2: 1 month after 1st dose 3. Dose 3: 6 months after 2nd dose (must be given ≥ 4 years old)	
REINFORCEMENT	Adults every 10 years
PRECAUTION	Acellular pertussis-containing vaccines may be administered to clients with the following conditions once a treatment regimen has been established and their condition has stabilized: • Progressive or unstable neurologic disorder (including infantile spasms for DTaP) • Uncontrolled seizures • Progressive encephalopathy
CONTRA-INDICATIONS	1. Children younger than 4 years old. 2. History of anaphylactic reaction to a previous dose of any tetanus, diphtheria or pertussis-containing vaccine, or to any Tdap vaccine component. 3. When a contraindication exists to tetanus toxoid and a client sustains a major or unclean wound, TIg should be given. Refer to *Tetanus Immune Globulin* (TIg) in this chapter. [1] 4. History of Guillain-Barré syndrome (GBS) occurring within 6 weeks of receipt of a tetanus-containing vaccine. 5. Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) not attributable to another identifiable cause within 7 days after receiving a dose of a pertussis-containing vaccine. 6. Individuals who have experienced other neurological complications following an earlier immunization against diphtheria and/or tetanus.

Tetanus-Diphtheria-acellular Pertussis (Tdap) **BOOSTRIX®**	
VACCINE COMPONENTS	Diphtheria toxoid, three purified pertussis antigens [pertussis toxoid (PT), filamentous haemagglutinin (FHA) and pertactin (69 kDalton outer membrane protein)], and tetanus toxoid. It also contains aluminum (as 0.5 mg aluminum salts), sodium chloride, water for injection. Latex, antibiotic and thimerosal free.
EXPECTED REACTIONS	**Local**: pain, redness and swelling at the injection site. **Systemic:** fatigue, headache, mild fever, dizziness, body aches or nausea.
EFFECTIVENESS	93-100% show protective levels for at least 5 years

***** According to the National Advisory Committee on Immunization (NACI), there is no upper age limit for the administration of Tdap. This differs from the information in the Tdap product monographs.

[1] Refer to Chapter 5, Section 3.7, *Tetanus Prophylaxis in Wound Management*.

[2] Children who complete their primary series or receive a booster dose of Tdap after their 11th birthday, do not require an additional dose of Tdap in Grade 8. See Chapter 5, Appendix 5.3 *Grade 8 Tdap Algorithm*.

[3] There is no minimum interval between a dose of Td and Tdap when Tdap is being given for pertussis protection, especially if primary pertussis series is incomplete for age.

[4] Refer to Chapter 7 *Appendix 7.7: Tdap Immunization Decision Chart for Pregnant Women.*

Tetanus-Diphtheria-Acellular Pertussis-Inactivated Poliomyelitis Adsorbed (Tdap-IPV)

ADACEL®-POLIO

Product monograph: https://www.sanofi.com/en/canada/your-health/vaccines-products

INDICATIONS, DOSES and SERIES (0.5 mL IM) (Min. age 4 years old)	
1. Wound Management [5] **2.** Booster (5th) dose at age 4-6 years (school entry) [1, 2] **3.** Unimmunized individuals 7+ years: 1. Dose 1 2. Dose 2: 1 months after 1st dose 3. Dose 3: 6 months after 2nd dose **4.** Children 7+ and Adolescents years of age: **A.** Booster dose for those who missed receiving the school entry booster dose. **B.** Incompletely immunized children 7+ and adolescents [3]: a. **If the first dose of DTaP-containing vaccine was administered before the 1st birthday**, administer remaining dose(s) in order to complete a 4-dose primary series given as [4]: 1. Dose 1 was administered before the 1st birthday 2. Dose 2: 1 month after 1st dose 3. Dose 3: 1 month after 2nd dose 4. Dose 4: 6 months after 3rd dose (must be given ≥ 4 years old) b. **If the first dose of DTaP-containing vaccine was administered after the 1st birthday**, administer remaining dose(s) in order to complete a 3-dose primary series given as: 1. Dose 1 was administered after the 1st birthday 2. Dose 2: 1 month after 1st dose 3. Dose 3: 6 months after 2nd dose (must be given ≥ 4 years old)	
REINFORCEMENT	None
PRECAUTION	Acellular pertussis-containing vaccines may be administered to clients with the following conditions once a treatment regimen has been established and their condition has stabilized: • Progressive or unstable neurologic disorder (including infantile spasms for DTaP) • Uncontrolled seizures • Progressive encephalopathy
CONTRA-INDICATIONS	1. Children younger than 4 years old. 2. History of anaphylactic reaction to a previous dose of any tetanus, diphtheria or pertussis-containing vaccine, or to any Tdap vaccine component. 3. When a contraindication exists to tetanus toxoid and a client sustains a major or unclean wound, TIg should be given. Refer to *Tetanus Immune Globulin* (TIg) in this chapter. [1] 4. History of Guillain-Barré syndrome (GBS) occurring within 6 weeks of receipt of a tetanus-containing vaccine. 5. Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) not attributable to another identifiable cause within 7 days after receiving a dose of a pertussis-containing vaccine. 6. Individuals who have experienced other neurological complications following an earlier immunization against diphtheria and/or tetanus.

Tetanus-Diphtheria-Acellular Pertussis-Inactivated Poliomyelitis Adsorbed (Tdap-IPV) ADACEL®-POLIO	
VACCINE COMPONENTS	Tetanus toxoid, reduced diphtheria toxoid, acellular pertussis antigens [pertussis toxoid (PT), filamentous haemagglutinin (FHA), pertactin (PRN), fimbriae types 2 and 3 (FIM)], and inactivated poliomyelitis vaccine [type 1 (Mahoney), type 2 (MEF-1) and type 3 (Saukett)]. **Excipients**: Aluminum phosphate (adjuvant), 2-phenoxyethanol, ethanol, polysorbate 80. **Manufacturing residuals**: Bovine serum albumin, formaldehyde, glutaraldehyde, streptomycin, neomycin and polymyxin B are present in trace amounts. Latex and thimerosal free.
EXPECTED REACTIONS	**Local**: Temporary pain, swelling and redness where the vaccine was given. Up to 20% of children who get this vaccine may have redness, swelling and pain at the injection site/arm for up to 5 days afterward. The symptoms usually resolve without any treatment (e.g., antihistamines) given. S**ystemic**: Tiredness, headache, mild fever, nausea, body aches and chills.
EFFECTIVENESS	Tetanus, diphtheria and polio antibodies are robust and pertussis antibodies in fully immunized children persist after 3 years of receiving Tdap-IPV as a replacement for DTaP-IPV.

[1] Not required if the 4th dose of DTaP-IPV-Hib or DTaP-IPV was given after the 4th birthday.

[2] Refer to SIM, Chapter 5 *Appendix 5.6: Immunization Recommendations for Children 4-6 years of Age.*

[3] Children who complete their primary series, or receive a booster dose of Tdap after their 11th birthday, do not require an additional dose of Tdap in Grade 8. See Chapter 5, Appendix 5.3 *Grade 8 Tdap Algorithm*.

[4] As only 3 doses of polio are required, Tdap may be used as one of the doses in this series, ensuring the recommended intervals for polio are maintained.

[5] Refer to Chapter 5, Section 3.7, Tetanus Prophylaxis in Wound Management

Tetanus-Diphtheria-Acellular Pertussis-Inactivated Poliomyelitis Adsorbed (Tdap-IPV)

BOOSTRIX®-POLIO

Product monograph available at: https://ca.gsk.com/media/6235/boostrix-polio.pdf)

INDICATIONS, DOSES and SERIES (0.5 mL IM) (Min. age 4 years old)	
1. Wound Management [5] **2.** Booster (5th) dose at age 4-6 years (school entry) [1, 2] **3.** Unimmunized individuals 7+ years: 1. Dose 1 2. Dose 2: 1 months after 1st dose 3. Dose 3: 6 months after 2nd dose **4.** Children 7+ and Adolescents years of age: **A.** Booster dose for those who missed receiving the school entry booster dose. **B.** Incompletely immunized children 7+ and adolescents [3]: a. **If the first dose of DTaP-containing vaccine was administered before the 1st birthday**, administer remaining dose(s) in order to complete a 4-dose primary series given as [4]: 1. Dose 1 was administered before the 1st birthday 2. Dose 2: 1 month after 1st dose 3. Dose 3: 1 month after 2nd dose 4. Dose 4: 6 months after 3rd dose (must be given ≥ 4 years old) b. **If the first dose of DTaP-containing vaccine was administered after the 1st birthday**, administer remaining dose(s) in order to complete a 3-dose primary series given as: 1. Dose 1 was administered after the 1st birthday 2. Dose 2: 1 month after 1st dose 3. Dose 3: 6 months after 2nd dose (must be given ≥ 4 years old)	
REINFORCEMENT	None
PRECAUTION	Acellular pertussis-containing vaccines may be administered to clients with the following conditions once a treatment regimen has been established and their condition has stabilized: • Progressive or unstable neurologic disorder (including infantile spasms for DTaP) • Uncontrolled seizures • Progressive encephalopathy
CONTRA-INDICATIONS	1. Children younger than 4 years old. 2. History of anaphylactic reaction to a previous dose of any tetanus, diphtheria or pertussis-containing vaccine, or to any Tdap vaccine component. 3. When a contraindication exists to tetanus toxoid and a client sustains a major or unclean wound, TIg should be given. Refer to *Tetanus Immune Globulin* (TIg) in this chapter. [1] 4. History of Guillain-Barré syndrome (GBS) occurring within 6 weeks of receipt of a tetanus-containing vaccine. 5. Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) not attributable to another identifiable cause within 7 days after receiving a dose of a pertussis-containing vaccine. 6. Individuals who have experienced other neurological complications following an earlier immunization against diphtheria and/or tetanus.

Tetanus-Diphtheria-Acellular Pertussis-Inactivated Poliomyelitis Adsorbed (Tdap-IPV) BOOSTRIX®-POLIO	
VACCINE COMPONENTS	Not less than 2.5 limit of flocculation ('Lf'), or 2 IU ('International Units') of diphtheria toxoid; not less than 5 Lf (20 IU) of tetanus toxoid; 8 mcg of pertussis toxoid, 8 mcg of filamentous haemagglutinin, 2.5 mcg of pertactin (69 kDa outer membrane protein), 40 D-antigen units (DU) of Type 1 poliovirus, 8 DU Type 2 polio virus and 32 DU Type 3 polio virus. Aluminum (as aluminum salts), sodium chloride, water for injection and medium 199. Residues*: disodium phosphate, formaldehyde, glutaraldehyde, glycine, monopotassium phosphate, neomycin sulphate, polymyxin B sulphate, polysorbate 80 and potassium chloride. Thimerosal free. Latex –free.
EXPECTED REACTIONS	**Local**: Temporary pain, swelling and redness where the vaccine was given. Up to 20% of children who get this vaccine may have redness, swelling and pain at the injection site/arm for up to 5 days afterward. The symptoms usually resolve without any treatment (e.g., antihistamines) given. S**ystemic**: Tiredness, headache, mild fever, nausea, body aches and chills.
EFFECTIVENESS	Tetanus, diphtheria and polio antibodies are robust and pertussis antibodies in fully immunized children persist after 3 years of receiving Tdap-IPV as a replacement for DTaP-IPV.

[1] Not required if the 4th dose of DTaP-IPV-Hib or DTaP-IPV was given after the 4th birthday.

[2] Refer to SIM, Chapter 5 *Appendix 5.6: Immunization Recommendations for Children 4-6 years of Age*

[3] Children who complete their primary series or receive a booster dose of Tdap after their 11th birthday, do not require an additional dose of Tdap in Grade 8. See Chapter 5, Appendix 5.3 *Grade 8 Tdap Algorithm.*

[4] As only 3 doses of polio are required, Tdap may be used as one of the doses in this series, ensuring the recommended intervals for polio are maintained.

[5] Refer to Chapter 5, Section 3.7, Tetanus Prophylaxis in Wound Management.

Typhoid (Typh-I)
(Salmonella typhi Vi Capsular Polysaccharide) (Inactivated) [Non-publicly funded]

TYPHIM Vi®
Product monograph: https://www.sanofi.com/en/canada/your-health/vaccines-products

Typhoid (Typh-O)
(Live Oral Attenuated Ty 21a) [Non-publicly funded]

Vivotif®
Bavarian Nordic product monograph

Varicella (Var) (live, attenuated)

VARILRIX®

Product monograph: https://ca.gsk.com/media/6263/varilrix.pdf)

INDICATIONS [1]	**DOSE / Series**
1. Those born since 1993-01-01 are eligible to receive an age or cohort appropriate series. 2. Non-immune HCW/post-secondary healthcare students as specified in Chapter 7. 3. Non-immune non-pregnant women of child-bearing age as specified in Chapter 5 Appendix 5.4, *Publicly Funded Varicella Immunization Eligibility and Panorama Directives.* [2] 4. Susceptible immunocompromised individuals **upon approval** by their specialist via submission of Chapter 7, *Immunization of Special Populations.* Appendix 7.2: *Varicella Immunization Referral Form*.	Two doses of 0.5 mL SC [3] given a minimum of 28 days apart.

CONTRAINDICATIONS

- History of an anaphylactic reaction to a previous dose of any varicella –containing vaccine, or to any component of VARILRIX®.
- Immunocompromised individuals unless determined by their specialist (**refer to indication #4**).
- Pregnancy. Women of childbearing age should avoid pregnancy for at least 28 days (1 month) post-vaccination.
- People with active untreated tuberculosis.
- Recent administration of an immune globulin preparation **(excluding RhIg)** or blood product [2] Refer to SIM, Chapter 5, *Immunization Schedules,* Section 3.5, *Spacing of Live Vaccines, Blood Products and Immune Globulin Preparations* and Section 3.5.1, *Immune Globulin Preparations or Blood: Timing Intervals for Vaccines Containing Live Measles, Mumps, Rubella, or Varicella Virus.* .

PRECAUTIONS

- Those 18 years and younger should avoid taking salicylates for 6 weeks after receiving a varicella-containing vaccine. Specialist consultation is required prior to immunization of these children with a varicella-containing vaccine.
- Family history of congenital immunodeficiency. Refer to SIM, Chapter 7, *Immunization of Special Populations* Section 3.1, *Congenital Immunodeficiency*
- Do TB skin testing on the same day as varicella immunization or delay TB skin testing for ≥ 4 weeks.
- Varicella immunization should be given on the same day as other live vaccines or delayed until 4 weeks after administration of any other live vaccine.
- Systemic antiviral therapy (e.g., acyclovir, valacyclovir, famciclovir) should be avoided for 24 hours as it may affect the reproduction of the vaccine virus and may reduce the efficacy of varicella-containing vaccine (CIG).
- It is recommended that people taking long-term antiviral therapy should discontinue these drugs, if possible, from at least 24 hours before administration of varicella-containing vaccine and should not restart antiviral therapy until 14 days after vaccine administration (CIG).

VACCINE COMPONENTS: Live, attenuated varicella virus vaccine (Oka-strain), amino acids, lactose, mannitol, sorbitol and water for injection. Neomycin sulphate is present as traces. Thimerosal free.

EXPECTED REACTIONS: Local: soreness, swelling, redness and rash where the needle was given. **Systemic:** fever, nausea, vomiting, diarrhea or decreased appetite, headache, dizziness, fussiness, tiredness. A varicella-like rash 5 to 26 days after getting immunized.

SPECIAL CONSIDERATION: Administer vaccine immediately after reconstitution.

*****Varicella footnotes are continued on next page.

Varicella (Var) (live, attenuated)
VARILRIX®

[1] Varicella susceptible is defined as:

- Lack of documented evidence of serological of VZV IgG antibodies; or
- Lack of documented evidence of immunization with 2 doses of a varicella-containing.
- **NOTE**: verbal history of disease is unacceptable evidence of immunity for those born since Jan. 1, 2003.

[2] Refer to SIM, Chapter 5, *Immunization Schedules,* Section 3.5, *Spacing of Live Vaccines, Blood Products and Immune Globulin Preparations* and Section 3.5.1, *Immune Globulin Preparations or Blood: Timing Intervals for Vaccines Containing Live Measles, Mumps, Rubella, or Varicella Virus.*

[3] Individuals who are eligible for a 2-dose varicella series who have documented evidence of **viral culture confirmed** (breakthrough) varicella disease 42 days or more after their first varicella-containing vaccine dose do not require a second varicella-containing vaccine dose. Provide a second dose of varicella-containing vaccine to those without this documentation as verbal history and/or healthcare practitioner diagnosis of breakthrough disease is unreliable.

Chapter 7, *Immunization of Special Populations.* Appendix 7.2: *Varicella Immunization Referral Form*.

Varicella (Var) (live, attenuated)

VARIVAX® III

Product monograph: https://www.merck.ca/en/wp-content/uploads/sites/20/2021/04/VARIVAX_III-PM_E.pdf)

INDICATIONS [1].	DOSE / Series
1. Those born since 1993-01-01 are eligible to receive an age or cohort appropriate series. 2. Non-immune HCW/post-secondary healthcare students as specified in Chapter 7. 3. Non-immune non-pregnant women of child-bearing age as specified in Chapter 5 Appendix 5.4, *Publicly Funded Varicella Immunization Eligibility and Panorama Directives.*[2] 4. Susceptible immunocompromised individuals *when Varilrix is unavailable* **and upon approva**l by their specialist via submission of Chapter 7, *Immunization of Special Populations.* Appendix 7.2: *Varicella Immunization Referral Form*.[4]	**Two doses of 0.5 mL SC [3] given a minimum of 28 days apart.**

CONTRAINDICATIONS

- History of an anaphylactic reaction to a previous dose of any varicella –containing vaccine, or to any component of VARIVAX®.
- Immunocompromised individuals unless determined by their specialist (**refer to indication #4**).
- Pregnancy. Women of childbearing age should avoid pregnancy for at least 28 days (1 month) post-vaccination.
- People with active untreated tuberculosis.
- Recent administration of an immune globulin preparation **(excluding RhIg)** or blood product.[2]

PRECAUTIONS

- Those 18 years and younger should avoid taking salicylates for 6 weeks after receiving a varicella-containing vaccine. Specialist consultation is required prior to immunization of these children with a varicella-containing vaccine.
- Family history of congenital immunodeficiency. Refer to SIM, Chapter 7, *Immunization of Special Populations* Section 3.1, *Congenital Immunodeficiency*
- Do TB skin testing on the same day as varicella immunization or delay TB skin testing for ≥ 4 weeks.
- Varicella immunization for immunocompetent clients should be given on the same day as other live vaccines or delayed until 4 weeks after administration of any other live vaccine.
- Systemic antiviral therapy (e.g., acyclovir, valacyclovir, famciclovir) should be avoided for 24 hours after the last dose as it may affect the reproduction of the vaccine virus and may reduce the efficacy of varicella-containing vaccine (CIG).
- It is recommended that people taking long-term antiviral therapy should discontinue these drugs, if possible, from at least 24 hours before administration of varicella-containing vaccine and should not restart antiviral therapy until 14 days after vaccine administration (CIG).

VACCINE COMPONENTS: Oka/Merck varicella strain (live, attenuated) ≥1350 PFU. **Excipients**: Sucrose, hydrolyzed gelatin, urea, sodium chloride, monosodium L-glutamate, sodium phosphate dibasic, potassium phosphate monobasic, potassium chloride, water for injection. Manufacturing Process Residuals: The product also contains residual components of MRC-5 cells including DNA and protein, and trace quantities of neomycin and fetal bovine serum from MRC-5 culture media. Preservative (thimerosal) free. Latex-free.

EXPECTED REACTIONS: Local: soreness, swelling, redness and rash where the needle was given. **Systemic:** fever, nausea, vomiting, diarrhea or decreased appetite, headache, dizziness, fussiness, tiredness. A varicella-like rash 5 to 26 days after getting immunized.

SPECIAL CONSIDERATION: Minimum potency remaining at expiry 90 minutes after reconstitution and storage at room temperature. Administer vaccine immediately after reconstitution.

*****Varicella footnotes are continued on next page.

Varicella (Var) (live, attenuated)
VARIVAX® III

[1] Varicella susceptible is defined as:

- Lack of documented evidence of serological of VZV IgG antibodies; or
- Lack of documented evidence of immunization with 2 doses of a varicella-containing vaccine.
- **NOTE**: verbal history of disease is unacceptable evidence of immunity for those born since Jan. 1, 2003.

[2] Refer to SIM, Chapter 5, *Immunization Schedules,* Section 3.5, *Spacing of Live Vaccines, Blood Products and Immune Globulin Preparations* and Section 3.5.1, *Immune Globulin Preparations or Blood: Timing Intervals for Vaccines Containing Live Measles, Mumps, Rubella, or Varicella Virus.*

[3] Individuals who are eligible for a 2-dose varicella series who have documented evidence of **viral culture confirmed** (breakthrough) varicella disease 42 days or more after their first varicella-containing vaccine dose do not require a second varicella-containing vaccine dose. Provide a second dose of varicella-containing vaccine to those without this documentation as verbal history and/or healthcare practitioner diagnosis of breakthrough disease is unreliable.

Yellow Fever (YF)

[Non-publicly funded]

YF-VAX®

Product monograph: https://www.sanofi.com/en/canada/your-health/vaccines-products

Tuberculin Purified Protein Derivative (PPD) (Mantoux)

TUBERSOL®

Product monograph: https://www.sanofi.com/en/canada/your-health/vaccines-products

INDICATIONS	Screening for tuberculosis infection (TBI).
DOSE/SERIES	PPD 5 TU 0.1 mL ID in anterior forearm (flexor or dorsal surface) between the wrist and the elbow: • For contact tracing, if the initial skin test is negative, a second test should be given 6 – 12 weeks after the last date of contact. • A second test, done 7 - 21 days after the first test, may be required in certain situations and would be on the advice of TB Control. • A small percentage of persons will only react after a second test or will react to a greater degree (so called "boosting" effect).
EXPECTED REACTIONS	• **Read result in 48 – 72 hours.** • Possible redness, induration and blistering. • Measure only induration (raised) diameter in millimetres and record this measurement.
CONTRA-INDICATIONS	• Pregnancy is not a contraindication to tuberculin testing. • A previous Bacille Calmette-Guerin (BCG) vaccine is not a contraindication to tuberculin testing**.** • History of anaphylactic reaction to a previous dose of Tubersol or any of its components. • **Tubersol should not be administered to:** ▪ known tuberculin positive reactors; ▪ persons with severe blistering tuberculin reactions in the past; ▪ persons with documented active tuberculosis or a clear history of treatment for TB infection or disease; or ▪ persons with extensive burns or eczema.
PRECAUTION	Do TB skin testing on the same day as live vaccines are administered, or delay TB skin testing for ≥4 weeks after a live vaccine if possible.
EXPECTED REACTIONS	Pain, pruritis and bruising may occur at the test site.
TB skin test result interpretations	Refer to *Canadian Tuberculosis Standards* (7th Ed.) Available at: https://www.canada.ca/en/public-health/services/infectious-diseases/canadian-tuberculosis-standards-7th-edition/edition-16.html
COMPONENTS	Purified protein derivative of *M. tuberculosis*, phenol, polysorbate 80.

Botulism Immune Globulin (BIg-IV)

BabyBIG
(Cangene USA https://www.infantbotulism.org/general/babybig

This product is not manufactured in Canada and is only available through the *Special Access Program* (SAP). An information binder is shipped with every request for professional reference.

INDICATIONS	To treat patients younger than 12 months of age diagnosed with infant botulism.
INITIAL SERIES	Refer to binder.
REINFORCEMENT	Refer to binder.
CONTRAINDICATIONS	Refer to binder.
COMPONENTS	Refer to binder.
EXPECTED REACTIONS	Refer to binder.
SPECIAL CONSIDERATION	Refer to binder.

Hepatitis B Immune Globulin (HBIg) (Human)

HepaGam B®

KI BioPharma LLC product monograph: https://www.kibiopharma.com/product/hepgam-b/

NOTE: Vital signs are not required to be taken before or after IM HBIg administration.

INDICATIONS	DOSE / SERIES [1]
1. Infant born to known HBsAg positive woman. 2. Infant born to woman at high risk for hepatitis B infection (i.e., intravenous drug use, sex trade work)) whose infectious status is unknown or negative (possible window period) and cannot be determined within 12 hours of birth. 3. Percutaneous or mucosal exposure to HBsAg positive source. 4. Sexual contact with a person who has acute or chronic hepatitis B infection. 5. An at-risk known non-responder to two series of HB vaccine.	1. & 2. Give HBIg 0.5 mL IM within 12 hours of birth, along with first dose of hepatitis B vaccine series [2, 3] 3. Give HBIg 0.06 mL/kg of body weight IM and hepatitis B vaccine IM as required, considering the client's immune status and history of hepatitis B immunization [4, 5] 4. Give HBIg 0.06 mL/kg of body weight IM as soon as possible following the last sexual exposure, along with hepatitis B vaccine series [4, 5] 5. **Dose 1**: HBIg 0.06 mL/kg of body weight IM. **Dose 2**: HBIg 0.06 mL/kg of body weight IM 4 weeks later.
REINFORCEMENT	Currently no recommendations
CONTRA-INDICATIONS	• In patients who have severe thrombocytopenia or any coagulation disorder that would contraindicate intramuscular injections, HepaGam B should be given only if the expected benefits outweigh the potential risks. • Patients with a history of anaphylactic or severe system reaction to any component of the product. • Patients who are deficient in IgA. While HepaGam B contains less than 40 mcg/mL IgA, individuals who are deficient in IgA may have the potential to develop IgA antibodies and have an anaphylactoid reaction.
PRECAUTIONS	• Human Ig products are among the safest blood-derived products available. The method of preparation includes one or more steps that exclude or inactivate hepatitis B, C and HIV; therefore the risk of transmission is extremely low. However, it is possible that unknown infectious agents may be present in such products. • Regarding HBIg and the administration of live vaccines refer to SIM, Chapter 5, *Immunization Schedules,* Section 3.5, *Spacing of Live Vaccines, Blood Products and Immune Globulin Preparations* and Section 3.5.1, *Immune Globulin Preparations or Blood: Timing Intervals for Vaccines Containing Live Measles, Mumps, Rubella, or Varicella Virus.* • Give HBIg with caution (i.e., in a setting capable of managing anaphylaxis) if the person has a history of anaphylactic reaction following receipt of any human Ig product, or a history of anaphylactic reaction to latex (assess risks versus benefits). • HBIg must be given at a separate anatomic site from hepatitis B vaccine.

Hepatitis B Immune Globulin (HBIg) (Human) **HepaGam B®**	
COMPONENTS	Human plasma protein (≥96% Human IgG), maltose, polysorbate 80. May contain trace amounts of tri-n-butyl phosphate and Triton X-100®
EXPECTED REACTIONS	•Temporary pain, swelling, tenderness and hives where the needle was given. •Headache. •Fever and diarrhea in infants. •Rarely, blot clots may occur after the administration of HB immune globulin.

[1] There is no upper limit to the volume of HBIg that can be administered.

[2] Refer to SIM, Chapter 7, *Immunization of Special Populations*, Section 4.2.1, *Hepatitis B Infant Immunoprophylaxis Protocol* for more information.

[3] There is no outer time limit for administering HBIg in infants less than 12 months of age, when the infant's exposure to the known risk factor(s) is ongoing. For infants less than 8.3 kg, give 0.5 ml HBIg.

[4] HBIg dose for all clients ≥ 8.3 kg is 0.06 ml/kg. Give HBIg as soon as possible, preferably within 48 hours of the exposure. For a percutaneous or permucosal exposure, HBIg may be given up to 7 days following the exposure. If the client presents more than 7 days following a percutaneous or permucosal exposure, give Hepatitis B vaccine only. For sexual exposures, HBIg may be given up to 14 days following the last exposure. If the client presents more than 14 days following a sexual exposure, give HB vaccine only. Refer to *Saskatchewan Post-Exposure Prophylaxis* recommendations available at: https://www.saskatchewan.ca/government/health-care-administration-and-provider-resources/resources-for-health-care-providers/public-health-manuals-policies/hiv-guidelines-manual

[5] Refer to *Immune Globulin Preparation Maximum Site Volumes*

Hepatitis B Immune Globulin (HBIg) (Human)

HyperHEP B®

Grifols Therapeutics product monograph: https://ca.products.grifols.com/en/product-catalogue

NOTE: Vital signs are not required to be taken before or after IM HBIg administration.

INDICATIONS	DOSE / SERIES [1]
1. Infant born to known HBsAg positive woman. **2**. Infant born to woman at high risk for hepatitis B infection (i.e., intravenous drug use, sex trade work) whose infectious status is unknown or negative (possible window period) and cannot be determined within 12 hours of birth. **3.** Percutaneous or mucosal exposure to HBsAg positive source. **4**. Sexual contact with a person who has acute or chronic hepatitis B infection. **5**. An at-risk known non-responder to two series of HB vaccine**.**	**1. & 2**. Give HBIg 0.5 mL IM within 12 hours of birth, along with first dose of hepatitis B vaccine series. [2, 3] **3.** Give HBIg 0.06 mL/kg of body weight and hepatitis B vaccine IM as required, considering the client's immune status and history of hepatitis B immunization. [4, 5] **4.** Give HBIg 0.06 mL/kg of body weight IM as soon as possible following the last sexual exposure, along with hepatitis B vaccine series [4, 5] **5**. **Dose 1**: HBIg 0.06 mL/kg of body weight IM. **Dose 2**: HBIg 0.06 mL/kg of body weight IM 4 weeks later.

CONTRAINDICATIONS	1. Patients who are hypersensitive to the immunoglobulin or to any ingredient in the formulation or component of the container 2. HyperHEP B® should not be administered to patients who have severe thrombocytopenia or any coagulation disorder that would contraindicate intramuscular injections. 3. IgA deficient patients with antibodies against IgA and a history of hypersensitivity.
PRECAUTIONS	• Human Ig products are among the safest blood-derived products available. The method of preparation includes one or more steps that exclude or inactivate hepatitis B, C and HIV; therefore the risk of transmission is extremely low. However, it is possible that unknown infectious agents may be present in such products. • Regarding HBIg and the administration of live vaccines refer to SIM, Chapter 5, *Immunization Schedules,* Section 3.5, *Spacing of Live Vaccines, Blood Products and Immune Globulin Preparations* and Section 3.5.1, *Immune Globulin Preparations or Blood: Timing Intervals for Vaccines Containing Live Measles, Mumps, Rubella, or Varicella Virus*. • Give HBIg with caution (i.e., in a setting capable of managing anaphylaxis) if the person has a history of anaphylactic reaction following receipt of any human Ig product, or a history of anaphylactic reaction to latex (assess risks versus benefits). • Clients with severe thrombocytopenia or coagulation disorders that contraindicate IM injections should not be given HBIg unless the benefits outweigh the risks. • HBIg must be given at a separate anatomic site from hepatitis B vaccine.

Hepatitis B Immune Globulin (HBIg) (Human) **HyperHEP B®**	
COMPONENTS	Contains 15-18% human hepatitis B hyperimmune immune globulin≥ 220 IU/mL, glycine. Preservative free. Prefilled syringes contain rubber needle shield and stopper.
EXPECTED REACTIONS	• Temporary pain, swelling, tenderness and hives where the needles was given. • Headache. • Fever and diarrhea in infants. • Rarely, blot clots may occur after the administration of HB immune globulin.

[1] There is no upper limit to the volume of HBIg that can be administered.
[2] Refer to Chapter 7, Section 4.2.1, *Hepatitis B Infants Immunoprophylaxis Protocol* for more information.
[3] There is no outer time limit for administering HBIg in infants less than 12 months of age, when the infant's exposure to the known risk factor(s) is ongoing. For infants less than 8.3 kg, give 0.5 ml HBIg.
[4] HBIg dose for all clients ≥ 8.3 kg is 0.06 ml/kg. Give HBIg as soon as possible, preferably within 48 hours of the exposure. For a percutaneous or permucosal exposure, HBIg may be given up to 7 days following the exposure. If the client presents more than 7 days following a percutaneous or permucosal exposure, give Hepatitis B vaccine only. For sexual exposures, HBIg may be given up to 14 days following the last exposure. If the client presents more than 14 days following a sexual exposure, give HB vaccine only. Refer to *Saskatchewan Post-Exposure Prophylaxis* recommendations available at: https://www.saskatchewan.ca/government/health-care-administration-and-provider-resources/resources-for-health-care-providers/public-health-manuals-policies/hiv-guidelines-manual
[5] Refer to *Immune Globulin Preparation Maximum Site Volumes*

Immune Globulin (Ig) (Human)

GamaSTAN®

Product monograph: https://ca.products.grifols.com/en/product-catalogue

NOTE: Vital signs are not required to be taken before or after IM Ig administration.

INDICATIONS	
1. Recommended and provided free for post-exposure prophylaxis of hepatitis A contacts as outlined in the *Saskatchewan Communicable Disease Control Manual*. [1] **2**. Recommended and provided free for post-exposure prophylaxis of measles contacts as outlined in the *Saskatchewan Communicable Disease Control Manual*. [1]	
CONTRA-INDICATIONS	**Do not give GamaSTAN® intravenously.**
PRECAUTIONS	• Health Canada has advised that the GamaSTAN® S/D product monograph has been updated to strengthen warnings on the rare but serious risk of blood clots. Blood clots have been reported in patients with and without risk factors, and can occur regardless of immunoglobulin dose or route of administration (injection into a muscle, vein or under the skin). [2] • Human Ig products are amongst the safest blood-derived products available. As the method of preparation includes one or more steps that exclude or inactivate hepatitis B, C and HIV, the risk of transmission is extremely low. However, it is possible that unknown infectious agents may be present in such products. • Persons with severe thrombocytopenia or coagulation disorders that contraindicate IM injections should not be given IM Ig unless the benefits outweigh the risks. • Give Ig with caution (e.g., in a setting capable of managing anaphylaxis) if the client has a history of anaphylactic reaction following receipt of any human Ig product, or history of anaphylactic reaction to glycine or to latex (assess risks versus benefits). • Persons with IgA deficiency have the potential for developing antibodies to IgA and could have an anaphylactic reaction to subsequent administration of blood products that contain IgA. Therefore, Ig should only be given to such persons if the expected benefits outweigh the risks. • Divide large volumes of Ig into two or more sites. • If administration of Ig is necessary less than 14 days after MMR or varicella vaccine, repeat vaccine as per recommended intervals. Refer to SIM, Chapter 5, *Immunization Schedules,* Section 3.5 *Spacing of Live Vaccines, Blood Products and Immune Globulin Preparations* and Section 3.5.1, *Immune Globulin Preparations or Blood: Timing Intervals for Vaccines Containing Live Measles, Mumps, Rubella, or Varicella Virus*.
COMPONENTS	GamaSTAN® S/D contains 15-18% immune globulin (human) as active ingredient. It also contains 0.16-0.26 M glycine, USP. Preservative free.
EXPECTED REACTIONS	Pain, swelling, tenderness and hives where the needle was given Tiredness, fever, headache, nausea. Rarely, blood clots may occur after the administration of an immune globulin product.

[1] Immune globulin should be given as soon as possible after a known exposure and no later than 2 weeks after the exposure.

[2] Health Canada (Oct. 9, 2014). *Safety information on the risk of blood clots with immunoglobulin products*. Available at: http://healthycanadians.gc.ca/recall-alert-rappel-avis/hc-sc/2014/41783a-eng.php

Rabies Immune Globulin (RabIg) (Human)

HyperRAB®

(Grifols Therapeutics monograph available at: https://ca.products.grifols.com/en/product-catalogue
NOTE: Vital signs are not required to be taken before or after IM RabIg administration.

INDICATIONS [1, 2, 4]	**RABIES POST-EXPOSURE PROPHYLAXIS (RPEP)** • As determined by Regional Medical Health Officers. • Refer to the SK CDC Manual Rabies chapter for information. • Rabies vaccine is given in conjunction with RabIg. Rabies vaccine and RabIg must be administered with separate needles and syringes at separate anatomical sites. • Tetanus immune globulin can be administered concurrently with RabIg and rabies vaccine using separate needles and syringes at separate anatomical sites.
DOSE/ INITIAL SERIES [3]	**RABIES POST-EXPOSURE PROPHYLAXIS:** • The recommended dosage for children and adults is the same: 20 IU/kg of body weight. Because of interference with active antibody production, do not exceed recommended dose. ➢ **HYPERRAB® is supplied as a 1 ml 300 IU vial or as a 2 ml vial of 300 IU (150 IU/mL) so read the label carefully to ensure correct dose calculation!** ➢ The dose of **HYPERRAB® S/D** is calculated as: [20 IU/kg x weight in kg] = _____mL **[vaccine IU concentration/mL]** ➢ If anatomically feasible, the full dose of HyperRAB® should be thoroughly infiltrated in the area around the wound. If the wound covers a large area and the HyperRAB® dose has insufficient volume to infiltrate the entire wound, the HyperRAB® dose may be diluted with an equal volume of dextrose, 5% (D5W) in water**. Do not dilute with normal saline.** ➢ Inject the remainder, if any, intramuscularly, preferably in the deltoid muscle of the upper arm or lateral thigh muscle using a separate syringe and needle, and anatomical site.
REINFORCEMENT	Currently no recommendations.
CONTRA-INDICATIONS	**There are no contraindications to RabIg given for post-exposure purposes.**
PRECAUTIONS	• If client has a history of anaphylactic reaction following receipt of any human Ig product or to any of the components of a RabIg product, administer RabIg in an emergency room setting. • Human Ig products are among the safest blood-derived products available. The method of preparation includes one or more steps that exclude or inactivate hepatitis B, C and HIV; therefore the risk of transmission is extremely low. However, it is possible, that unknown infectious agents may be present in such products.

Rabies Immune Globulin (RabIg) (Human) **HyperRAB®**	
	• Regarding RabIg and the administration of live vaccines, refer to SIM, Chapter 5, *Immunization Schedules,* Section 3.5, *Spacing of Live Vaccines, Blood Products and Immune Globulin Preparations* and Section 3.5.1, *Immune Globulin Preparations or Blood: Timing Intervals for Vaccines Containing Live Measles, Mumps, Rubella, or Varicella Virus.* • Persons with IgA deficiency have the potential for developing antibodies to IgA and could have an anaphylactic reaction to subsequent blood products that contain IgA. Administer RabIg in an emergency room setting.
COMPONENTS	Human rabies hyperimmune globulin, glycine, sodium carbonate. Preservative free.
EXPECTED REACTIONS	Temporary tenderness, soreness, pain or stiffness where the needle was given, fever, headache, malaise, rash, chills, nausea, joint or muscle aches.

[1] If RabIg is not administered on day 0, it can be administered up to and including day 7 of the RPEP series. Since vaccine induced antibodies begin to appear within one week, there is no value in administering RabIg more than 8 days after initiation of vaccine.

[2] Provide a written record to a client who receives any immune globulin product.

[3] When notification of an exposure is delayed, RPEP may be started as late as 6 or more months after an exposure.

[4] **RabIg should never be administered in the same syringe or needle or in the same anatomical site as vaccine.**

Rabies Immune Globulin (RabIg) (Human)

KamRAB™

Product monograph: https://www.kamada.com/product/kamrab/

NOTE: Vital signs are not required to be taken before or after IM RabIg administration.

INDICATIONS [1, 2, 4]	**RABIES POST-EXPOSURE PROPHYLAXIS (RPEP)** • As determined by Regional Medical Health Officers. • Refer to the CDC Manual Rabies chapter for information. • Rabies vaccine is given in conjunction with RabIg. Rabies vaccine and RabIg must be administered with separate needles and syringes at separate anatomical sites. • Tetanus immune globulin can be administered concurrently with RabIg and rabies vaccine using separate needles and syringes at separate anatomical sites.
INITIAL SERIES [3]	**RABIES POST-EXPOSURE PROPHYLAXIS:** • The recommended dosage for children and adults is the same: 20 IU/kg of body weight. Because of interference with active antibody production, do not exceed recommended dose. ➢ The dose of RabIg is calculated as: [20 IU/kg x weight in kg] = _____mL **[vaccine IU concentration/mL]** ➢ Infiltrate as much RabIg as possible deep into and around the wound(s) in order to neutralize the virus. When more than one wound site exists, each site should be infiltrated with a portion of the RabIg. ➢ If there are extensive wounds, where the calculated dose of RabIg (by weight) is not adequate in volume to infiltrate all wounds, dilute the RabIg 2-3 fold in normal saline to create an adequate volume to infiltrate all wounds (CIG).
REINFORCEMENT	Currently no recommendations.
CONTRAINDICATIONS	**There are no contraindications to RabIg given for post-exposure purposes.**
PRECAUTIONS	• If client has a history of anaphylactic reaction following receipt of any human Ig product, to any of the components of RabIg (glycine) or to latex, administer RabIg in an emergency room setting. • Human Ig products are among the safest blood-derived products available. The method of preparation includes one or more steps that exclude or inactivate hepatitis B, C and HIV; therefore the risk of transmission is extremely low. However, it is possible, that unknown infectious agents may be present in such products. • Regarding RabIg and the administration of live vaccines refer to SIM, Chapter 5, *Immunization Schedules,* Section 3.5, *Spacing of Live Vaccines, Blood Products and Immune Globulin Preparations* and Section 3.5.1, *Immune Globulin Preparations or Blood: Timing Intervals for Vaccines Containing Live Measles, Mumps, Rubella, or Varicella Virus*. • Persons with IgA deficiency have the potential for developing antibodies to IgA and could have an anaphylactic reaction to subsequent blood products that contain IgA. Administer RabIg in an emergency room setting.

Rabies Immune Globulin (RabIg) (Human) **KamRAB™**	
COMPONENTS	KamRAB is a sterile, non-pyrogenic aqueous solution of anti-rabies immunoglobulin (≥95% protein as IgG). The product is stabilized with 0.3 M glycine and has a pH of 5.5 ± 0.5. Medicinal ingredients: Anti-rabies immunoglobulin (human antibodies to rabies) Non-medicinal ingredients: glycine, water for injection and sodium hydroxide. No preservatives are added. Latex free.
EXPECTED REACTIONS	Temporary tenderness, soreness, pain or stiffness where the needle was given, fever, headache, malaise, rash, chills, nausea, joint or muscle aches.

[1] If RabIg is not administered on day 0, it can be administered up to and including day 7 of the RPEP series. Since vaccine induced antibodies begin to appear within one week, there is no value in administering RabIg more than 8 days after initiation of vaccine.

[2] Provide a written record to a client who receives any immune globulin product.

[3] When notification of an exposure is delayed, RPEP may be started as late as 6 or more months after an exposure.

[4] **RabIg should never be administered in the same syringe or needle or in the same anatomical site as vaccine.**

Tetanus Immune Globulin (TIg) (Human)

HyperTET® S/D

Product monograph: https://ca.products.grifols.com/en/product-catalogue

NOTE: Vital signs are not required to be taken before or after IM TIg administration.

INDICATIONS	DOSE / SERIES
TIg must be given at separate anatomic sites from a tetanus toxoid-containing vaccine or rabies immune globulin. 1. TIg is indicated for prophylaxis against tetanus following a major or unclean wound in individuals whose immunization history is incomplete or uncertain. Refer to Chapter 5, Section 3.7, *Tetanus Prophylaxis in Wound Management*. 2. TIg is indicated when a contraindication to a tetanus toxoid-containing vaccine exists and an individual sustains a major or unclean wound. 3. TIg is indicated in individuals known to have a significant immune deficiency state (e.g., HIV) regardless of their immunization history, following any major or unclean wound. 4. TIg is also indicated, although evidence of effectiveness is limited, in the regimen of treatment of active cases of tetanus.	• Give 250 units IM (entire single dose pre-filled disposable syringe) to adults and children who require TIg. • If a contraindication to tetanus toxoid-containing vaccine exists or a client refuses a tetanus toxoid-containing vaccine, and a client sustains a major or unclean wound, consider offering a 2nd dose of TIg approximately 28 days post the 1st dose of TIg (ImmunoFacts, 2013). **NOTE:** The syringe fill volume for each lot is adjusted to ensure a potency of not less than 250 IU/syringe. The actual fill volume for HyperTET® syringes typically ranges between 0.75 ml and 1.3 ml. The needle on the pre-filled syringe is fixed and cannot be changed.

REINFORCEMENT	None if Td/Tdap/Td-IPV/Tdap-IPV vaccine is given concurrently with TIg.
CONTRA-INDICATIONS	1.Anaphylactic or severe systemic hypersensitivity reactions to Immunoglobulin (Human), or to any ingredient in the formulation, including any non-medicinal ingredient, or component of the container. 2.HyperTET® should not be administered to patients who have severe thrombocytopenia or any coagulation disorder that would contraindicate intramuscular injections. 3.IgA deficient patients with antibodies against IgA and a history of hypersensitivity.
PRECAUTIONS	• Human Ig products are among the safest blood-derived products available. The method of preparation includes one or more steps that exclude or inactivate hepatitis B, C and HIV; therefore the risk of transmission is considered to be extremely low. However, it is possible that unknown infectious agents may be present in such products. • Regarding TIg and administration of live vaccines refer to SIM, Chapter 5, *Immunization Schedules,* Section 3.5, *Spacing of Live Vaccines, Blood Products and Immune Globulin Preparations* and Section 3.5.1, *Immune Globulin Preparations or Blood: Timing Intervals for Vaccines Containing Live Measles, Mumps, Rubella, or Varicella Virus*. • Give TIg with caution (i.e., in a setting capable of managing anaphylaxis) if the client has a history of anaphylactic reaction following receipt of any human Ig product, or a history of anaphylactic reaction to latex (assess risks versus benefits).

Tetanus Immune Globulin (TIg) (Human) **HyperTET® S/D**	
	• Persons with IgA deficiency have the potential for developing antibodies to IgA and could have an anaphylactic reaction to subsequent administration of blood products that contain IgA. Therefore, TIg should only be given to such persons if the expected benefits outweigh the risks. • In clients who have severe thrombocytopenia or any coagulation disorder that would contraindicate IM injections, TIg should be given only if the expected
COMPONENTS	15%-18% Human tetanus hyperimmune globulin, glycine. Preservative free. Prefilled syringe has rubber needle shield and stopper. Latex-free
EXPECTED REACTIONS	• Temporary pain, soreness and tenderness where the needle was given. • Fever, rash and itching skin. • Rarely, blood clots may occur after the administration of an immune globulin product.

Varicella Zoster Immune Globulin (VarIg) (Human)

VARIZIG®

Product monograph: https://www.kibiopharma.com/products/

NOTE: Vital signs are not required to be taken before or after IM VarIg administration.

INDICATIONS [1, 2]	For post-exposure prevention of varicella in the following high-risk clients who cannot receive varicella vaccine and who are at increased risk of severe varicella disease: **Infants and children:** • Immunocompromised clients (congenital or acquired) due to treatment or disease, including some clients receiving high doses of corticosteroids. • Clients receiving monthly IGIV may not require VariZIG®. • Newborn infants whose mothers develop varicella disease 5 days before to 48 hours after delivery. • Hematopoietic stem cell transplant (HSCT) recipients. • Infants and children in neonatal or pediatric intensive care settings, as determined by infectious disease/infection control specialist. **Adults:** • Susceptible pregnant women. • Immunocompromised adults (congenital or acquired) due to disease or treatment, including clients receiving corticosteroid treatment. Clients receiving regular monthly infusions of IGIV may not require VariZIG®. • Hematopoietic stem cell transplant recipients.
DOSE / SERIES	• Give VariZIG® IM or IV as soon as possible, and within 96 hours of the first exposure to varicella or zoster. Clinicians may opt to provide VarIg up to 10 days following exposure to attenuated illness. • 125 IU is given for each 10 kg of body weight and is the minimum dose. • The maximum dose is 625 IU. • If VariZIG® is administered by an intramuscular route, it should be given as an injection into the deltoid muscle or the anterolateral aspects of the upper thigh. Due to the risk of sciatic nerve injury, the gluteal region should not be used as a routine injection site. If the gluteal region is used, use only the upper, outer quadrant.
REINFORCEMENT	If a 2nd varicella exposure occurs more than 3 weeks after a dose of VariZIG®, another dose of VariZIG® should be given.
SPECIAL HANDLING INSTRUCTIONS	The product should be brought to room or body temperature immediately prior to use. The product should be clear or slightly opalescent. Do not use product that appears cloudy or contains deposits.
CONTRA-INDICATIONS	1. With known immunity to varicella zoster virus; i.e. with previous varicella infections or varicella vaccination. 2. Who are deficient in IgA. While VariZIG® contains less than 40 µg/mL IgA, individuals who are deficient in IgA may have the potential to develop IgA antibodies and have an anaphylactoid reaction. 3. With a history of anaphylactic or other severe systemic reaction to immune globulins. 4. Who are hypersensitive to this drug or to any ingredient in the formulation or components of the container.

Varicella Zoster Immune Globulin (VarIg) (Human) **VARIZIG®**	
PRECAUTIONS	• Regarding VariZIG® and administration of live vaccines (MMR & Varicella) refer to SIM, Chapter 5, *Immunization Schedules,* Section 3.5, *Spacing of Live Vaccines, Blood Products and Immune Globulin Preparations* and Section 3.5.1, *Immune Globulin Preparations or Blood: Timing Intervals for Vaccines Containing Live Measles, Mumps, Rubella, or Varicella Virus.* • Human Ig products are amongst the safest blood-derived products available. The method of preparation includes one or more steps that exclude or inactivate hepatitis B, C or HIV; therefore the risk of transmission of these viruses is considered to be extremely low. However, it is possible that unknown infectious agents may be present in such products.
COMPONENTS	VariZIG® is a sterile solution for injection. It is a gamma globulin (IgG) fraction of human plasma containing antibodies to varicella zoster virus. Non-medicinal ingredients include 10% maltose and 0.03% (w/w) polysorbate 80. Each 125 IU vial contains less than 156 mg human IgG. It contains no preservative and is intended for single use only. VariZIG® does not contain mercury and the stopper is latex free.
EXPECTED REACTIONS	• Temporary pain and tenderness at the injection site. • Headache, rash, joint or muscle aches, chills, tiredness, nausea, vomiting, or flushing may occur. • Rarely, blood clots may occur after the administration of an immune globulin product.

[1] A dose of ≥ 2 mg/kg/day of prednisone or equivalent, or more than 20 mg/per day, particularly when given for more than 2 weeks.

[2] Patients receiving monthly infusions of ≥ 400 mg/kg of IVIG and whose most recent infusion was within 3 weeks of exposure do not require VariZIG®.

Botulism Antitoxin (BAT®)

Botulism Antitoxin
Heptavalent (A, B, C, D, E, F, G) – (Equine)
Emergent BioSolutions Canada Inc. 2020 Product monograph:
https://www.emergentbiosolutions.com/wp-content/uploads/2022/01/BAT-Canada-Monograph-English.pdf

INDICATIONS	Treatment of botulism
INITIAL SERIES	Refer to product monograph
REINFORCEMENT	Refer to product monograph
CONTRAINDICATIONS	Refer to product monograph
COMPONENTS	Refer to product monograph
EXPECTED REACTIONS	Refer to product monograph
SPECIAL CONSIDERATION	Refer to product monograph

Diphtheria Antitoxin (DAT)

Diphtheria Antitoxin

Diphtheria antitoxin is ordered via Panorama from RRPL Vaccine Depot when indicated.
A product monograph is included with every vial.

INDICATIONS	For passive transient protection against or treatment of diphtheria infections.
INITIAL SERIES	
REINFORCEMENT	
CONTRAINDICATIONS	
COMPONENTS	
EXPECTED REACTIONS	
SPECIAL CONSIDERATION	