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HIGH RISK

(Manual http://www.bccdc.ca/health-professionals/clinical-resources/communicable-disease-control-manual)

AGE	PROVINCIAL VACCINE	ROUTE	OTHER VACCINES & COMMENTS
2 months	Rotavirus (Rotarix®)	PO	• Give first if IM immunizations being given at the same visit. ^{1,2} 2 dose series only.
			Live vaccine, please see <u>BC Centre for Disease Control Communicable Disease Control Immunization</u> <u>Program Section 4 – Biological Products</u> for list of contradictions.
	DTaP-HB-IPV-Hib (Infanrix hexa™)	IM	
	Pneumococcal conjugate (Prevnar® 13)	IM	
	Men-C conjugate (NeisVac-C®) or Men-C-ACYW (Menveo™ or Nimenrix®) for high risk only	IM	 For children at high risk for invasive meningococcal disease due to medical conditions or close contacts of meningococcal A/C/W/Y disease, Men-C-ACYW (Menveo[®] or Nimenrix[®]) should be given in place of Men-C conjugate and administered at 2, 4 and 12 months of age.³ Periodic revaccination recommended if risk ongoing. Recommended but not publicly funded for travelers for whom meningococcal vaccine is indicated.
			See <u>Factsheet: Meningococcal Disease</u>
			 NACI recommends the multi-component meningococcal serogroup B (4CMenB) vaccine be considered on an individual basis for children 2 months of age and older. It should be strongly considered for children at high risk. Not publicly funded.⁴ Dose schedule available <u>here</u>.
			See Factsheet: Meningococcal B Vaccine: What Parents Need to Know
4 months	2 nd Rotavirus (Rotarix [®])	PO	Give first if IM immunizations being given at the same visit. ^{1,2}
			Live vaccine, please see <u>BC Centre for Disease Control Communicable Disease Control Immunization</u> <u>Program Section 4 – Biological Products</u> for list of contradictions.
	2 nd DTaP-HB-IPV-Hib (Infanrix hexa [™])	IM	
	2 nd Pneumococcal conjugate (Prevnar [®] 13)	IM	
	2 nd Men-C-ACYW (Menveo [™] or Nimenrix [®]) for high risk only	IM	 Consider meningococcal B vaccine for high risk.⁴
6 months	3 rd DTaP-HB-IPV-Hib (Infanrix hexa [™])	IM	 Consider meningococcal B vaccine for high risk.⁴
	3 rd Pneumococcal conjugate (Prevnar [®] 13) for high risk	IM	
	MMR	SC	Consider if travelling to endemic countries in consultation with ID specialist. ²
	COVID-19	IM	 Children ≥6 months of age are eligible as per latest <u>BCCDC guidelines</u>. A 3 dose primary series with a booster 6 months later is indicated for some immunocompromised children depending on age and product used.
	Influenza	IM	 Annual influenza immunization for children beginning at 6 months (two doses in 1st year of vaccine receipt if <9 years old). As of 2022/2023, influenza immunization is publicly funded for all ≥6 months of age.
			See <u>Factsheet: Influenza</u>
	Hepatitis A	IM	 Recommended and publicly funded for Aboriginal children and infants ≥6 months up to 18 years of age.⁵
			 Recommended and publicly funded for all infants ≥6 months of age at increased risk of Hepatitis A severe liver disease (e.g., underlying liver disease of idiopathic, metabolic, infectious or cholestatic etiology).⁵
			See <u>Factsheet: Hepatitis A – Local Risks</u>



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AGE	PROVINCIAL VACCINE	ROUTE	OTHER VACCINES & COMMENTS
12 months	3 rd (or 4 th if high risk) Pneumococcal conjugate	IM	
	2 nd Men-C conjugate (NeisVac-C [®]) 3 rd Men-C-ACYW (Menveo [™] or Nimenrix [®]) for high risk only	IM	 For high risk infants, Men-C-ACYW (Menveo[®] or Nimenrix[®])³ should be given in place of Men-C conjugate. Men-C-ACYW is administered at 2, 4 and 12 months of age; NACI recommends two doses of Nimenrix[®] if given to high risk immunocompromised children. Nimenrix[®] is only one dose if given between 12 and 23 months of age. Consider meningococcal B vaccine for high risk.⁴ Consider hepatitis A vaccine (two dose series), especially if traveling.⁵
	MMR	SC	See <u>Factsheet: Travel Vaccines – Enterically Borne</u> Live vaccine, please see <u>BC Centre for Disease Control Communicable Disease Control Immunization</u> <u>Program Section 4 – Biological Products</u> for list of contradictions. ²
	Varicella (Varivax [®] III or Varilrix [®])	SC	 Live vaccine, please see <u>BC Centre for Disease Control Communicable Disease Control Immunization</u> <u>Program Section 4 – Biological Products</u> for list of contradictions.²
18 months	4 th DTaP-IPV-Hib	IM	 Consider Men-C-ACYW for high risk: Menveo[®] at 2-24 months of age; Menactra[®] or Nimenrix[®] at 2 years of age and older.³ NACI recommends two doses of Nimenrix[®] if given to high risk immunocompromised children. Nimenrix[®] is only one dose if given between 12 and 23 months of age. Consider meningococcal B vaccine for high risk.⁴
	Hepatitis A	IM	 Recommended and publicly funded for Aboriginal children and infants ≥6 months up to 18 years of age.⁵ Recommended and publicly funded for all infants ≥6 months of age at increased risk of Hepatitis A severe liver disease (e.g., underlying liver disease of idiopathic, metabolic, infectious or cholestatic etiology).⁵ See <u>Factsheet: Hepatitis A – Local Risks</u>
2 years	Pneumococcal polysaccharide (pneumovax 23®) for high risk	IM	 Consider Men-C-ACYW for high risk: Menveo[®] at 2-24 months of age; Menactra[®] or Nimenrix[®] at 2 years of age and older.³
4-6 years	Tdap-IPV	IM	
	MMRV (ProQuad [®] , Priorix-tetra [®])	SC	Live vaccine, please see <u>BC Centre for Disease Control Communicable Disease Control Immunization</u> <u>Program Section 4 – Biological Products</u> for list of contradictions. ²



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AGE	PROVINCIAL VACCINE	ROUTE	OTHER VACCINES & COMMENTS
11 years (Grade 6)	Nonovalent HPV (Gardasil® 9)	IM	 Gardasil[®]9 is publicly funded for grade 6 boys and girls and HIV+ individuals 9-26 yrs of age who have not received a complete series of HPV vaccine.⁶ Two doses for 9-14 year olds with a dose interval of ≥6 months.
			 HPV vaccine remains publicly funded for those who do not commence a series in grade 6 but initiate a series prior to age 19 (for males, born in 2006 or later), but not thereafter. A series commenced prior to the age of 19 may be completed with publicly funded HPV vaccine prior to the 26th birthday.
			 HPV vaccine is publicly funded for males 9-26 years, including those who have sex with men, street involved youth, boys who may be questioning their sexual or gender identity, and youth in custody or in care of Ministry of Children and Family Development.
			 Recommended for older females and women up to age 45, all boys age 9 to 26 years, and males 27 years of age and older who are men who have sex with men. Not publicly funded. It is available for purchase from most pharmacies and travel clinics.
			 Immunocompromised males and females 9-14 years of age (inclusive) initiating Gardasil[®] 9 should receive a 3 dose series given at 0, 2, and 6 month intervals.
			See <u>BCPS Factsheet: Human Papillomavirus (HPV)</u>
	Varicella (Varivax [®] III or Varilrix [®])	SC	• Children who have never had a dose receive 2 doses, the second dose at least 3 months after the first dose.
	if susceptible		 For those 13 years of age and older, the recommended interval between 2 doses of varicella vaccine is 6 weeks.⁷
			Children who received 1 dose at a younger age only need 1 dose.
			 Live vaccine, please see <u>BC Centre for Disease Control Communicable Disease Control Immunization</u> <u>Program Section 4 – Biological Products</u> for list of contradictions.²
			 Children who have had laboratory confirmed varicella after 12 months of age do not require varicella immunization.
			 Consider Men-C-ACYW for high risk. If vaccinated at 6 years of age and under, give 3 years after previous dose.³
			Consider annual influenza immunization for this age group.
14 years (Grade 9)	Tdap (Adacel [®]) then every 10 years	IM	 Males and females initiating Gardasil[®] at age 15 years or older should receive a 3 dose series at 0, 2 & 6 month intervals.⁵
			Consider annual influenza immunization for this age group.
	Men-C-ACYW	IM	See <u>Factsheet: Meningococcal Disease</u>
			 Two Meningococcal B vaccines are approved for use in Canada. NACI recommends the multi-component meningococcal serogroup B (4CMenB) vaccine be considered on an individual basis for children 2 months of age and older. It should be strongly considered for children at high risk. Not publicly funded.⁴ Dose schedule <u>available here for Bexsero</u>. For children 10 years of age and up, <u>Trumenba</u> is also an option.



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Hepatitis A, HPV, Meningococcal and Pneumococcal vaccine recommendations for immunization of high risk including immunocompromised, immunosuppressed or children with other health conditions, travelers, aboriginal or special populations may be found at:

- 1) BC Centre for Disease Control Immunization Program Manual Section 4 Biological Products
- 2) BC Centre for Disease Control Immunization Program Manual Section 2 Immunization of Special Populations
- 3) BC Centre for Disease Control Communicable Disease Control Manual Chapter 2: Immunization Appendix C Contraindications and Precautions for Immunization

There are no contraindications to administering inactivated vaccines to immunocompromised.

Live virus vaccines (eg: MMR, Varicella, Rotavirus) may cause serious adverse events if administered to immunocompromised.

¹ First dose of Rotarix[®] vaccine to be given no later than 20 weeks less 1 day of age. Administer last dose by 8 months plus 0 days of age. Minimum 4 weeks between each dose. 10/2018. <u>BCCDC link click here</u>.

- ² See precautions and advice when administering live vaccines to immunocompromised individuals. <u>BCCDC link click here</u>.
- ³ BC Centre for Disease Control. Meningococcal Quadrivalent Conjugate Vaccines (Groups A,C,Y,W-135). 05/2020. BCCDC link click here.
- ⁴ Meningococcal B vaccine is publicly funded for case contacts only. BC Centre for Disease Control. 01/2017. <u>BCCDC link click here</u>.
- ⁵ BC Centre for Disease Control. Hepatitis A Vaccine (Inactivated Viral). 05/2017. <u>BCCDC link click here</u>.
- ⁶ BC Centre for Disease Control. Vaccines in BC, Human Papillomavirus (HPV) Vaccine. 06/2022. <u>BCCDC link click here</u>.
- ⁷ BC Centre for Disease Control. Varicella Vaccine (Live Attenuated Viral Vaccine). 10/2020. <u>BCCDC link click here</u>.
- ⁸ BC Centre for Disease Control. 10/2022. Communicable Disease Control Immunization Program Section 4 Biological Products. BCCDC link click here.