

VACCINES FOR INFANTS AND CHILDREN IN BRITISH COLUMBIA

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ROUTINE IMMUNIZATION SCHEDULE FOR INFANTS AND CHILDREN

Please refer to the BC Centre for Disease Control (BCCDC) Immunization Manual and Schedules for the most current immunization schedule

<http://www.bccdc.ca/imm-vac/ImmunizationSchedules/default.htm>

<http://www.bccdc.ca/dis-cond/comm-manual/CDManualChap2.htm>

Additional vaccine information may be obtained from:

The Canadian Immunization Guide:

<http://www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php#toc>

American Academy of Pediatrics Red Book: Report of the Committee on Infectious Diseases

COMMONLY USED PEDIATRIC VACCINE PRODUCTS

NOTE: This list includes only products which are commonly used but it is not an all inclusive list. Although these vaccines can be obtained from Pharmacy, many of them are not routinely stocked and, as such, there may be a delay in obtaining them

| Vaccine | Dose | Comments |
|---|--|--|
| DTaP-HB-IPV-Hib¹ (diphtheria, tetanus, pertussis, hepatitis B, inactivated polio vaccine, <i>Haemophilus influenzae</i> type B) <i>INFANRIX-hexa[®]</i> | 0.5 mL IM | - Not interchangeable with <i>Pediacel[®]</i> , <i>Infanrix[®]-IPV/Hib</i> as part of routine immunization schedule. |
| DTaP-IPV-Hib¹ (diphtheria, tetanus, pertussis, inactivated polio vaccine, <i>Haemophilus influenzae</i> type B) <i>Pediacel[®]</i> , <i>Infanrix[®]-IPV/Hib</i> | 0.5 mL IM | - Not interchangeable with <i>INFANRIX-hexa[®]</i> as part of routine immunization schedule. |
| DTaP-IPV¹ (diphtheria, tetanus, pertussis, inactivated polio vaccine) <i>Quadacel[®]</i> , <i>Infanrix[®]-IPV</i> | 0.5 mL IM | - Used for preschool boosters. |
| DTaP (diphtheria, tetanus, pertussis) | - | - Not available in Canada |
| DT Polio Adsorbed | - | - Not available in Canada |
| Haemophilus influenzae type b conjugate vaccine (Hib) <i>Act-Hib[®]</i> | 0.5 mL IM | - Only used for catch-up immunization |
| Hepatitis A vaccine (HA) <i>Vaqta[®]</i> , <i>Havrix[®]</i> , <i>Avaxim[®] Pediatric</i> , <i>Avaxim[®]</i> | Dosing is product specific. Refer to individual product monograph. | - Refer to BCCDC Immunization manual for eligibility |

| COMMONLY USED PEDIATRIC VACCINE PRODUCTS | | |
|--|--|--|
| Vaccine | Dose | Comments |
| Hepatitis B vaccine (HB) <i>Recombivax HB[®] (thimerosal free),</i> <i>Engerix[®]-B</i> | Infants born to HBsAg-positive mothers: 0.5 mL IM at birth | - Infants will receive Hepatitis B vaccine in <i>INFANRIX-hexa[®]</i> as part of routine immunization starting at 2 mos. (please refer to BCCDC immunization manual or schedules) - For children who didn't receive Hepatitis B as part of routine immunization, please refer to BCCDC immunization manual or schedules. |
| Hepatitis A and B (HA and HB) <i>Twinrix[®], Twinrix Junior[®]</i> | Refer to product monograph. | - Not stocked at BCCH. |
| HPV (human papillomavirus) <i>Gardasil[®]</i> | 0.5 mL IM | - Part of routine immunization of girls in grade 6 beginning September 2008. |
| Influenza virus vaccine <i>Fluviral S/F[®], Agriflu[®]</i> (for thimerosal allergy) | 0.5 mL IM | - Influenza virus vaccines are formulated annually based on specifications of the World Health Organization and contain antigens representative of the strains of influenza virus expected to be prevalent in the forthcoming year. - Children < 9 yrs who are receiving influenza virus vaccine for the first time require 2 doses given 4 weeks apart |
| Live attenuated influenza vaccine <i>Flumist[®], Flumist[®] Quadrivalent</i> | 0.1 mL in each nostril | - Not for administration for inpatients at BCCH - Children < 9 yrs who are receiving influenza virus vaccine for the first time require 2 doses given 4 weeks apart |
| Meningococcal conjugate vaccine Group C <i>Menjugate[®], NeisVac-C[®], Meningitec[®]</i> | 0.5 mL IM | - Part of routine immunization in British Columbia as of Aug 2010 |
| Meningococcal conjugate vaccine Group A, C, Y, W-135 <i>Menactra[®], Menveo[®]</i> | 0.5 mL IM | - Part of routine schedule in 2015. Please see BCCDC immunization schedules for updates. |
| Meningococcal polysaccharide vaccine (Groups A, C, Y and W-135) <i>Menomune[®]</i> | 0.5 mL IM | - Not for use in children < 2 yrs unless conjugate vaccines contraindicated. Requires re-immunization. Please see BCCDC immunization manual. |

COMMONLY USED PEDIATRIC VACCINE PRODUCTS

| Vaccine | Dose | Comments |
|--|---|---|
| MMR (Measles, Mumps, Rubella Vaccine): <i>MMR-II[®], Priorix[®]</i> | 0.5 mL (<i>Priorix[®]</i>) or 0.7 mL (<i>MMR-II[®]</i>) SC (live vaccine) | - Live, attenuated vaccine. - Measles, mumps, rubella only available in Canada as combination product (MMR). - The MMR vaccine can be given at the same time as varicella. Use separate sites, syringe and needle for each injection. If they are not given at the same time then there needs to be 4 weeks between administration of the two vaccines. |
| MMR-varicella <i>Priorix-Tetra[®], Proquad[®]</i> | 0.5 mL (<i>Priorix-Tetra[®]</i>) or 0.7 mL (<i>Proquad[®]</i>) SC | - Live, attenuated vaccine. - Not stocked at BCCH. |
| Pneumococcal 13-valent conjugate vaccine <i>Prevnar[®]13</i> | 0.5 mL IM | - <i>Prevnar 13[®]</i> has replaced <i>Prevnar[®]</i> for routine immunization starting June 2010. |
| Pneumococcal 23 capsular polysaccharide Vaccine <i>Pneumovax[®]23</i> | 0.5 mL IM or SC | - Not effective in children < 2 yrs. - When both conjugate (PCV) and polysaccharide (PPSV) are required, it is preferred that PCV be given first, followed by PPSV ≥8 weeks after. -If PPSV is given first, give PCV ≥1 year after. |
| Poliomyelitis (Inactivated) Vaccine (IPV) <i>IMOVAX Polio[®]</i> | 0.5 mL SC | See BCCDC Immunization Manual for indications. |
| Rotavirus <i>ROTARIX[®], RotaTeq[®]</i> | Dosing is product specific. Refer to individual product monograph. | - For routine immunization of infants beginning at 2 months |

COMMONLY USED PEDIATRIC VACCINE PRODUCTS

| Vaccine | Dose | Comments |
|---|--------------------|---|
| Tetanus Toxoid | - | <ul style="list-style-type: none"> - Tetanus toxoid is no longer available in Canada as a single entity vaccine. - For secondary prophylaxis (ie. wound prophylaxis), use Td, Tdap or DTap-IPV. Please refer to the Canadian Immunization Guide (http://www.phac-aspc.gc.ca/publicat/cig-gci/p04-tet-eng.php#sched) |
| Td Adsorbed® (tetanus and diphtheria toxoids): | 0.5 ml IM | <ul style="list-style-type: none"> - For children and adolescents ≥ 7 yrs. - Tdap is preferred to Td for adolescents who have never received Tdap. - May be used for tetanus prophylaxis in wound management for children of all ages. |
| Tdap (tetanus toxoid, reduced diphtheria toxoid, acellular pertussis) <i>Adace®</i> , <i>Boostrix®</i> | 0.5 mL IM | <ul style="list-style-type: none"> - For children and adolescents ≥ 7 yrs. - Tdap is preferred to Td for adolescents who have never received Tdap. - May be used for tetanus prophylaxis in wound management for children of all ages. |
| Td-Polio Adsorbed® (tetanus toxoid, diphtheria toxoid, inactivated poliomyelitis vaccine) | 0.5 mL IM | - Not stocked at BCCH. |
| Tuberculin skin test (Mantoux, purified protein derivative) <i>Tubersol®</i> | 0.1 mL intradermal | - Refer to BCCDC Tuberculosis Control Manual for further information (http://www.bccdc.ca/dis-cond/comm-manual/default.htm) |
| Varicella Virus Vaccine <i>Varivax®III</i> , <i>Varilix®</i> | 0.5 mL SC | <ul style="list-style-type: none"> - Live, attenuated vaccine. - The varicella vaccine can be given at the same time as MMR. Use separate sites, syringe and needle for each injection. If they are not given at the same time then there needs to be 4 weeks between administration of the two vaccines. |

See footnotes on next page

¹The acellular pertussis in the *Infanrix*[®], *Pediacel*[®], and *Quadrace*[®] vaccine has been shown to be more effective against pertussis and cause fewer adverse reactions than the previous whole cell pertussis vaccine. Due to the lower reactogenicity of the acellular pertussis vaccines, recommendations regarding the use of the pertussis vaccine have changed:

- the only absolute contraindication to receiving pertussis vaccine is an anaphylactic reaction to a previous dose
- hypotonic – hyporesponsive episodes within 48 hours of a prior dose of *Quadrace*[®] are not considered a contraindication to the use of acellular pertussis vaccine. Continued immunization with all antigens is recommended
- deferral of pertussis immunization for children with evolving neurological conditions is no longer necessary. The risks of fever and possible febrile seizures are no greater after acellular pertussis-containing vaccines than after DT vaccines alone.

| OCCASIONALLY USED VACCINE PRODUCTS | | | | | | | | | | | |
|--|--|--------------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|--------------|
| NOTE: This list is not all inclusive. | | | | | | | | | | | |
| Vaccine | Dose | | | | | | | | | | |
| Tetanus Immune Globulin (TIG): for tetanus prophylaxis following injury when immunization is incomplete or uncertain. (However, in an unimmunized child, active immunization should also be given for more certain long term protection): <i>HyperTET</i> [®] ** available from the Pharmacy ** | 250 units IM - Volume of syringe is 0.75-1.3 mL. Administer entire syringe. - Consider offering a 2nd dose of Tlg 30 days after the 1st dose when there is a contraindication to receiving a tetanus toxoid-containing vaccine or a tetanus toxoid-containing vaccine is refused. | | | | | | | | | | |
| Varicella Zoster Immune Globulin: (VZIG): for passive immunization after exposure to chickenpox or zoster in susceptible patients: <i>VariZIG</i> [®] ** available from Transfusion Medicine ** | <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">< 10 kg:</td> <td style="width: 50%;">125 units IM</td> </tr> <tr> <td>10.1-20 kg:</td> <td>250 units IM</td> </tr> <tr> <td>20.1-30 kg:</td> <td>375 units IM</td> </tr> <tr> <td>30.1-40 kg:</td> <td>500 units IM</td> </tr> <tr> <td>> 40 kg:</td> <td>625 units IM</td> </tr> </table> | < 10 kg: | 125 units IM | 10.1-20 kg: | 250 units IM | 20.1-30 kg: | 375 units IM | 30.1-40 kg: | 500 units IM | > 40 kg: | 625 units IM |
| < 10 kg: | 125 units IM | | | | | | | | | | |
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