Polio Vaccine (IPV)

Revision Date: January 23, 2018

Rationale for Policy Update: Completion of series for students up to and including age 18 years until end of grade 12.

Please consult the Product Monograph for further information about the vaccine.

<table>
<thead>
<tr>
<th>IMOVAX® Polio (Vero Cell Origin)</th>
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<tbody>
<tr>
<td>Manufacturer</td>
</tr>
<tr>
<td>Sanofi Pasteur SA – Distributed by Sanofi Pasteur Limited</td>
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<tr>
<td>Licensed use</td>
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<tr>
<td>Individuals 6 weeks and older</td>
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<tr>
<td>Off-license use</td>
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<tr>
<td>None</td>
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</tbody>
</table>

Indications for use of provincially funded vaccine

Children (2 months – 17 years of age):

- Children previously unimmunized with polio vaccine but have already received diphtheria, pertussis and tetanus-containing vaccines.
  
  Note: Combination vaccines containing diphtheria, pertussis, polio, tetanus and/or Hib should be used when indicated.

- Children travelling to countries where polio is known to be circulating (exporting and/or infected) and who are unimmunized or whose series is incomplete for age – an accelerated schedule can be considered.

Refer to World Health Organization (WHO) Global Polio Eradication Initiative see www://polioeradication.org/polio-today/ for current recommendations.

Adults (18 years of age and older):

- Primary Immunization – Low Risk:
  
  - Students requiring polio vaccine are eligible until the end of grade 12 regardless of age.

  Due to the limited supply of polio vaccine and the low risk of exposure to polio in Alberta and Canada – the recommendation for the routine immunization of unimmunized adults is suspended until further notice.

Adults at increased risk of exposure as outlined below should continue to receive a primary series.

- Primary Immunization – High Risk:

  Adults in the following groups are at increased risk of exposure to poliovirus and should receive a primary series:

  - Health care workers (HCW) providing direct patient care who may be exposed to patients excreting the wild or vaccine strains of polio virus (contact with stool, fecal matter, or pharyngeal secretions).

  - Laboratory workers handling specimens that may contain poliovirus.

  - Members of communities or specific population groups with disease caused by polio.

  - Close contact with those who may be excreting poliovirus (e.g. people working with refugees or people on humanitarian missions in countries where polio is circulating - exporting and/or infected).
• Family members or close contacts of internationally adopted infants who may have been immunized with OPV vaccine. 5
• Individuals receiving travelers from areas where poliovirus is known to be circulating. 2, 5
• Adults travelling for 4 weeks or greater to countries currently exporting and/or infected with polio. 2, 5
  ➢ Refer to World Health Organization (WHO) Global Polio Eradication Initiative see www://polioeradication.org/polio-today/polio-now/public-health-emergency-status for current recommendations. 4

Note: Provincially funded polio vaccine may be used for these adult travelers going to countries where polio is circulating and is only available through Alberta Health Services.

Reinforcing vaccine dose:

• Adults as indicated above who are at increased risk of exposure to poliovirus should receive a single life time reinforcing dose:

Notes:

• For adult recipients of HSCT and SOT. See:
  ➢ Immunization for Adult Hematopoietic Stem Cell Transplant Recipients and
  ➢ Immunization for Adult Solid Organ Transplant Candidates and Recipients.

• Due to the low risk of exposure to polio in Alberta and Canada for post-secondary student placements, post-secondary institutions are not expected to assess healthcare students for polio immunization. Once these students enter the workforce they will be assessed by Workplace Health and Safety staff for risk of exposure to polio at the clinical site where they will be employed and offered appropriate vaccine at that time.

• Children and adults intending to stay longer than four weeks in countries where polio is circulating should be referred to a Travel Clinic for assessment.

Dose 0.5 mL

Route Subcutaneous injection

Schedule

Primary Series:
  ❖ Dose 1: day 0
  ❖ Dose 2: 8 weeks after dose 1 (interval between doses may be shortened to four weeks)
  ❖ Dose 3: 6 – 12 months after dose 2

Reinforcing dose:

Children:
  ❖ Booster dose of polio-containing vaccine is recommended for children 4 – 6 years of age usually as combined vaccine (dTap-IPV or DaPT-IPV).

Notes:
  • Single antigen polio vaccine is rarely recommended for children and only if they are assessed as up-to-date for diphtheria, tetanus and pertussis immunization but not up-to-date for polio.
  • The reinforcing dose of polio is not required if the third dose was given on or after 4 years of age.
### Adults (18 years of age and older):

- One adult lifetime booster dose of polio-containing vaccine (at least 10 years after the primary series) is recommended for adults who are at increased risk of exposure to wild polioviruses (see INDICATIONS) and who completed the primary series in childhood.\(^1,6,7\)

Note: Unless at increased risk of exposure to polio (see Indications), reinforcing doses of polio-containing vaccine are not routinely recommended for adults living in Canada.\(^5\)

#### Contraindications
- Known severe hypersensitivity to any component of the vaccine or its container.\(^1\)
- Anaphylaxis or other allergic reaction to a previous dose of vaccine containing polio antigen.

#### Precautions
Each dose of vaccine may contain undetectable traces of neomycin, streptomycin and polymyxin B.

#### Possible reactions following immunization

##### Local reactions:
- Usually mild and transient in nature.\(^1\)
- Redness and pain at the injection site.\(^1\)
- Injection site mass

##### Systemic reactions:
- Low-grade fever\(^1\)

The following additional adverse events have been reported from post-marketing surveillance: lymphadenopathy, transient mild fever, allergic reactions, arthralgia, myalgia, convulsions, headache transient and mild paraesthesia, agitation, somnolence, irritability, rash and urticarial.\(^1\) Whatever the adverse event reported during post-marketing experience, its frequency remained very rare (less than 0.01%).\(^1\)

Refer to: *Adverse Events Following Immunization (AEFI), Policy for Alberta Immunization Providers.*\(^8\)

#### Pregnancy
May be considered for pregnant women who require immediate protection and are at increased risk of exposure to wild poliovirus.\(^2\) Limited data have not revealed an increased risk of adverse events associated with polio vaccine administered to pregnant women.\(^2\)

#### Lactation
May be administered to breastfeeding mothers when indicated.\(^2\) It is not known if IMOVAX® Polio is excreted in human milk.\(^3\)
References


