# dTap-IPV

**Diphtheria-Tetanus-Acellular Pertussis-Polio Combined Vaccine**

Revision Date: July 19, 2019

Rationale for Update: Removed reference to DTaP-IPV.

Please consult the Product Monograph\(^1,2\) for further information about the vaccine.

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>ADACEL®-POLIO</th>
<th>BOOSTRIX®-POLIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanofi Pasteur Limited</td>
<td></td>
<td>GlaxoSmithKline Inc.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Licensed use</th>
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<tbody>
<tr>
<td>Booster immunization for individuals four years of age and older.(^1,2)</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Off-license use</th>
</tr>
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<tbody>
<tr>
<td>Primary immunization for individuals seven years and older who need diphtheria, tetanus, acellular pertussis and polio vaccines.(^3)</td>
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<table>
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<tr>
<th>Indications for use of provincially funded vaccine</th>
</tr>
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<tbody>
<tr>
<td><strong>Children 4 years up to including 6 years of age:</strong></td>
</tr>
<tr>
<td>• Reinforcing dose of diphtheria, tetanus, acellular pertussis and polio (preschool booster) – routine immunization program.</td>
</tr>
<tr>
<td><strong>Children 7 years up to and including 17 years of age including:</strong></td>
</tr>
<tr>
<td>• Those initiating a primary vaccine series (unknown/uncertain or no history of a primary series) or completing a vaccine series (diphtheria, tetanus, acellular pertussis and polio).(^3)</td>
</tr>
<tr>
<td>• Those who sustain a wound injury and have not received the age-appropriate number of tetanus and polio vaccine dose See <a href="#">Tetanus Post-exposure Prophylaxis in Injury/Wound Management</a>.</td>
</tr>
<tr>
<td><strong>Adults 18 years of age and older:</strong></td>
</tr>
<tr>
<td>• When immunization for diphtheria, tetanus, acellular pertussis and polio antigens is indicated. See Biological Products <a href="#">Polio Vaccine</a> for indications.</td>
</tr>
</tbody>
</table>

**Notes:**

- Children who have received hematopoietic stem cell transplantation. See [Immunization for Child Hematopoietic Stem Cell Transplant Recipients](#).
- Immunization (one dose) for some select adult populations if diphtheria, tetanus, acellular pertussis and polio antigens are indicated including:
  - Candidates and recipients of solid organ transplants (SOT).
  - Other select adult populations as deemed appropriate by the Medical Officer of Health.

<table>
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<th>Use in children younger than 4 years of age</th>
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<tr>
<td>Not recommended for children younger than four years of age.</td>
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</tbody>
</table>
### Dose

**0.5mL**

### Route

**Intramuscular injection**

### Schedule

**Series:**

- **Children 7 years up to and including 17 years of age:**
  - Dose 1: day 0
  - Dose 2: 4 – 8 weeks after dose 1
  - Dose 3: 6 – 12 months after dose 2

**Reinforcing dose:**

- Children four years of age.
- Other individuals when a dose of diphtheria, tetanus, acellular pertussis and polio vaccine is indicated.

### Contraindications

- Known severe hypersensitivity to any component of the vaccine.\(^1\,^2\)
- Anaphylactic or other allergic reaction to a previous dose of vaccine containing tetanus, diphtheria, pertussis or polio.\(^1\,^2\)
- Encephalopathy (e. g., coma, decreased level of consciousness, prolonged seizures) within seven days of a previous dose of a pertussis-containing vaccine not attributable to another identifiable cause is a contraindication to immunization with any pertussis-containing vaccine.\(^1\,^2\,^4\)

### Precautions

- Frequent booster doses of tetanus and diphtheria toxoids may lead to severe local and systemic reactions and may be associated with high levels of circulating antitoxin.\(^3\)

### Possible reactions

**Common:**

- Pain, redness and swelling at the injection site.\(^1\,^2\) In children injection site bruising, pruritus and dermatitis\(^2\) and injection site mass and hematoma in adolescents and adults.\(^1\)
- Headache (adolescents and adults) and fever,\(^1\,^2\) tiredness/fatigue.\(^1\)
- Sore and swollen joints, generalized body ache, and chills.\(^2\)
- Irritability and somnolence,\(^1\) and rash.\(^2\)
- GI disorders including nausea, vomiting and diarrhea,\(^2\) anorexia.
- Severe local reactions occur rarely and may be associated with high levels of circulating tetanus antitoxin.\(^2\)

**Uncommon:**

- Individuals 10 years and older: oral herpes, lymphadenopathy, decreased appetite, paresthesia, somnolence, dizziness, asthma, pruritus, arthralgia, and myalgia\(^1\)
- Children 4 to 9 years of age: sleep disorder, apathy, dry throat, nausea, abdominal pain.\(^1\)

**Rare:**

- Anaphylaxis.

**Note:** DAT/TAT level testing may be recommended for some. See [Adverse Events Following Immunization Policy for Alberta Immunization Providers](#) - Interpretation of Diphtheria Antitoxin Levels (DAT) and Tetanus Antitoxin Levels (TAT).\(^5\)
Pregnancy | May be administered to pregnant women 26 weeks of gestation or greater when there is significant risk of exposure to both pertussis and polio. Consultation with the Medical Officer of Health is required. Immunization during pregnancy requires careful consideration. The effect upon embryonic and fetal development has not been assessed. However, inactivated vaccines and toxoids are generally considered safe in pregnancy.

Lactation | May be administered to breastfeeding women if indicated.

Program Notes | • 2012 September – Introduced into program for routine booster for 4-6 year olds replacing DTaP-IPV.

References
1 GlaxoSmithKline Inc (2018 March 5). Boostrix®-Polio: Combined diphtheria, tetanus, acellular pertussis (adsorbed) and inactivated poliomyelitis vaccine. Product Monograph.