Pneumococcal Vaccine, 23-valent Polysaccharide (Pneumo-P)

Revision Date: March 1, 2023

Rationale for Update:
• Updated precautions to include co-administration of Shingrix vaccine.

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

<table>
<thead>
<tr>
<th><strong>PNEUMOVAX® 23</strong></th>
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<tr>
<td><strong>Manufacturer</strong></td>
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<td><strong>Licensed use</strong></td>
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<td><strong>Off-license use</strong></td>
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| **Indications for use of provincially funded vaccine** | • All individuals 65 years of age and older.³
• **Note:** Individuals are eligible for one dose of Pneumo-P after they turn 65 years of age – as long as 5 years have passed since a previous Pneumo-P.³
• All residents of long-term facilities.³
• All individuals 2 years of age and older with conditions/circumstances that place them at higher-risk for invasive pneumococcal disease (IPD):
  ➢ Alcoholism³.
  ➢ Asplenia/hyposplenism (functional or anatomic) ³.
  ➢ Chronic cardiac disease³.
  ➢ Chronic cerebrospinal fluid (CSF) leak³.
  ➢ Chronic liver disease, including hepatic cirrhosis due to any cause, hepatitis B carriers and hepatitis C infection³.
  ➢ Chronic neurologic conditions that may impair clearance of oral secretions.³
  ➢ Chronic pulmonary disease (including asthma requiring medical treatment within the last 12 months regardless of whether they are on high dose steroids).³
  ➢ Chronic renal disease, including nephrotic syndrome³.
  ➢ Cochlear implants (candidates and recipients) ³.
  ➢ Congenital immune deficiencies involving any part of the immune system, including B-lymphocyte (humoral) immunity; T-lymphocyte (cell) mediated immunity; complement system (properdin or factor D deficiencies); or phagocytic functions.³
  ➢ Diabetes mellitus³.
  ➢ Hematopoietic stem cell transplant (HSCT) recipients³. See:
    • Immunization for Child Hematopoietic Stem Cell Transplant Recipients and
    • Immunization for Adult Hematopoietic Stem Cell Transplant Recipients.
  ➢ HIV infection³.
- **Immunosuppressive therapy including:**
  - use of long term corticosteroids,
  - chemotherapy,
  - radiation therapy,
  - post-organ transplant therapy,
  - biologic and non-biologic immunosuppressive therapies for:
    - inflammatory arthropathies, e.g., systemic lupus erythematosus (SLE), rheumatoid or juvenile arthritis,
    - inflammatory dermatological conditions, e.g., psoriasis, severe atopic dermatitis and eczema, and
    - inflammatory bowel disease, e.g., Crohn’s disease, ulcerative colitis.

  **Note:** Individuals prescribed eculizumab (Soliris®) are at increased risk of serious infections, especially with encapsulated bacteria, such as *Streptococcus pneumoniae*, therefore, they should receive pneumococcal polysaccharide vaccine at least eight weeks after receiving Prevnar® 13. See scheduling for further spacing information.

For additional information see: Immunization of Specific Populations.

- Malignant hematologic disorders (affecting the bone marrow or lymphatic system) including leukemia, lymphoma, Hodgkin’s disease and non-Hodgkin’s lymphomas, and multiple myeloma.

- Malignant solid organ tumors either currently or within past 5 years.

- Living in homeless/chronically disadvantaged situations:
  - Definition: At the time of diagnosis, the individual did not have an address or home (apartment, townhouse, etc.). This would include people staying in shelters, cars, etc.
  - Document “No Fixed Address” under home address. If the individual is using a friend/relative’s mailing address, it can be included in brackets under home address.

- Sickle cell disease and other hemoglobinopathies.

- Solid organ or islet transplant (SOT) candidates and recipients See:
  - Immunization for Children Expecting Solid Organ Transplant at 18 Months of Age or Older (Catch-up Schedule)
  - Immunization for Adult Solid Organ Transplant Candidates and Recipients.

- Illicit drug use.

**Note:**
- Pneumococcal conjugate vaccine may also be recommended for individuals at highest risk of IPD. See Biological Products: Pneumococcal 13-valent Conjugate Vaccine for these risk groups.
- Individuals 18 years of age and older, including those with conditions that place them at higher risk for IPD, who have received 20-valent pneumococcal conjugate vaccine (PCV20), according to the schedule(s) outlined in the product monograph, are not recommended to receive Pneumo-P at this time.

**Post-exposure**
Previous IPD does not confer immunity or preclude immunization with pneumococcal vaccine.

For disease investigation and reporting requirements refer to Public Health Notifiable Disease Management Guidelines – Invasive Pneumococcal Disease.
<table>
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<tr>
<th>Dose</th>
<th>0.5 mL</th>
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<td>Route</td>
<td>Intramuscular or subcutaneous injection</td>
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**Schedule**

**One dose for most individuals**

**Notes:**

- If possible, vaccine should be administered at least 14 days before splenectomy or initiation of immunosuppressive therapy.\(^3\)
- If vaccine cannot be administered before initiation of immunosuppressive therapy, generally a period of at least 3 months should elapse between therapy cessation and the vaccine.\(^3\)
  - If immunosuppressive therapy will be long term/ongoing and/or for those with malignant solid organ tumors or malignant hematological disorders, currently undergoing immunosuppressive therapy the vaccine should be administered as soon as possible.\(^3\)
- When both pneumococcal conjugate vaccine and pneumococcal polysaccharide vaccine are indicated, the pneumococcal conjugate vaccine should be administered first with a minimum interval of at least eight weeks between the two vaccines.\(^3\)
  - However, if pneumococcal polysaccharide vaccine has already been administered, there must be an interval between doses as specified below:
    - Children 2 – 17 years of age: pneumococcal conjugate vaccine may be administered with a minimal interval of at least eight weeks after the pneumococcal polysaccharide vaccine.\(^3,7,8\)
    - Adults 18 years of age and older: pneumococcal conjugate vaccine may be administered with a minimal interval of at least one year after the pneumococcal polysaccharide vaccine.\(^3,9,10,13\)

**Reinforcing dose:** A one-time reinforcing dose should be offered 5 years later to those who have:

- Asplenia/hyposplenism (functional or anatomic).\(^1,2,3\)
- Chronic renal failure or nephrotic syndrome.\(^1,2,3\)
- Chronic liver disease including hepatic cirrhosis.\(^2\)
- Congenital immunodeficiencies involving any part of the immune system.\(^2,3\)
- HIV infection.\(^1,2,3\)
- HSCT recipients may be an exception to this recommendation – see:
  - Immunization for Child Hematopoietic Stem Cell Transplant Recipients and
  - Immunization for Adult Hematopoietic Stem Cell Transplant Recipients.\(^1,2,3\)
- Immunosuppression related to therapy including:\(^3\)
  - use of long term corticosteroids,
  - chemotherapy
  - radiation therapy
  - post-organ transplant therapy,
  - biologic and non-biologic immunosuppressive therapies (e.g. Soliris® medication) for:
    - inflammatory arthropathies, e.g. systemic lupus erythematosus (SLE), rheumatoid or juvenile arthritis,
### Contraindications
- Known severe hypersensitivity to any component of Pneumovax® 23.
- Anaphylactic or other allergic reaction to a previous dose of vaccine containing pneumococcal antigen.

### Precautions
- Pneumovax® 23 will only protect against serotypes of *S. pneumoniae* that are contained in the vaccine. It will not protect against other micro-organisms that cause invasive infection, otitis media and pneumonia.\(^1\)
- If antibiotics for prophylaxis against pneumococcal infection are required, these should not be discontinued after immunization with Pneumovax® 23.\(^{11}\)
- Pneumococcal vaccine should be given at least 14 days prior to initiation of immunosuppressive therapy (cancer chemotherapy and other immunosuppressive therapies)\(^1,3\) when possible.
- Fever and shivering were more frequent when Pneumovax® 23 vaccine was co-administered with Shingrix®.\(^{14}\)

### Possible reactions
See [Product Monograph](#).

### Pregnancy
Pregnant women with conditions that are a risk for IPD should receive pneumococcal vaccine as indicated.\(^3\)

### Lactation
Breastfeeding women with conditions that are a risk for IPD should receive pneumococcal vaccine as indicated.\(^3\)

### Program Notes
- 1997 April – Pneumovax®23 and Pneumo 23® Pneumococcal polysaccharide vaccine introduced into program for high risk groups except 65 years of age and older. End date for Pneumo 23® 2008-09.
- 1998 Fall – Pneumococcal polysaccharide vaccine for individuals 65 years of age and older.
- 2014 October – Illicit drug use added to indications.
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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<tr>
<td>2019 January 1</td>
<td>Vaccine becomes available at pharmacies for healthy individuals age 65 years of age and older.</td>
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<tr>
<td>2022 December 9</td>
<td>Updated recommendation for adults who privately purchase 20-valent pneumococcal conjugate vaccine.</td>
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References


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