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

Revision Date: August 10, 2015

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

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<th><strong>PNEUMOVAX® 23</strong></th>
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<td><strong>Manufacturer</strong></td>
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### Indications for use of provincially funded vaccine

Pneumococcal conjugate vaccine may also be recommended for individuals at highest risk of invasive pneumococcal disease (IPD). See Biological Products: Pneumococcal 13-valent Conjugate Vaccine for these risk groups.

- All individuals 65 years of age and older.²

**Note:** All individuals should receive one dose of Pneu-P-23 after they turn 65 years of age – as long as 5 years have passed since a previous Pneu-P-23, regardless of their prior immunization history.²

- All residents of long-term facilities³
- All individuals 2 years of age and older with:
  - Alcoholism.
  - Asplenia/hyposplenism (functional or anatomic).
  - Chronic cardiac disease.
  - Chronic cerebral spinal fluid (CSF) leak.
  - Chronic liver disease, including hepatic cirrhosis due to any cause, hepatitis B carriers and hepatitis C infection.
  - Chronic neurologic conditions that may impair clearance of oral secretions.²
  - Chronic pulmonary disease (including asthma requiring medical treatment within the last 12 months regardless of whether they are on high dose steroids).⁴
  - Chronic renal disease, including nephrotic syndrome.
  - Cochlear implants (candidates and recipients).
  - 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.
  - Diabetes mellitus.
  - Hematopoietic stem cell transplant (HSCT) recipients. See:
    - Immunization for Child Hematopoietic Stem Cell Transplant Recipients
    - Immunization for Adult Hematopoietic Stem Cell Transplant Recipients.
  - HIV infection.
  - Immunosuppressive therapy including use of long term corticosteroids, chemotherapy, radiation therapy, post-organ transplant therapy, and certain anti-rheumatic drugs.³

**Note:** Individuals prescribed eculizumab (Soliris®) are at increased risk of serious infections, especially with encapsulated bacteria, such as *Streptococcus pneumoniae,*³ therefore, they should receive pneumococcal polysaccharide vaccine at least eight weeks after receiving Prevnar® 13. See scheduling for further spacing information.
Malignant neoplasms including leukemia, Hodgkin’s and non-Hodgkin’s lymphomas, multiple myeloma and other malignancies.

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) and
- Immunization for Adult Solid Organ Transplant Candidates and Recipients.

Illicit injection drug use

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.

Use in children younger than two years of age
Not recommended for children younger than two years of age due to inadequate immune response.

Dose
0.5 mL

Route
Intramuscular or subcutaneous injection

Schedule
One dose for most individuals

Notes:
- If possible, vaccine should be administered at least 14 days before splenectomy or initiation of immunosuppressive therapy.
- 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. 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.
  - 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.

Reinforcing dose:
- A one-time reinforcing dose should be offered 5 years later to those who have.
- Asplenia/hyposplenism (functional or anatomic) or sickle cell disease
- Chronic renal failure or nephrotic syndrome
Hepatic cirrhosis
HIV infection
HSCT recipients may be an exception to this recommendation – see:
- Immunization for Child Hematopoietic Stem Cell Transplant Recipients
- Immunization for Adult Hematopoietic Stem Cell Transplant Recipients
Immunosuppression related to disease or therapy (e.g., lymphoma, Hodgkin's disease, multiple myeloma, high-dose systemic steroids, Soliris® medication)
Sickle cell disease
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.

Notes: Individuals with underlying medical conditions would be eligible for a dose after turning 65 years of age – as long as 5 years have passed since a previous Pneu-P-23, regardless of their prior immunization history (maximum of 3 doses of Pneu-P-23 in a lifetime).

Pneumococcal conjugate vaccine may also be recommended for individuals at highest risk of IPD. See Pneumococcal 13-valent Conjugate Vaccine: Prevnar® 13 for risk groups.

**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.
- If antibiotics for prophylaxis against pneumococcal infection are required, these should not be discontinued after immunization with PNEUMOVAX® 23.
- Pneumococcal vaccine should be given at least 14 days prior to initiation of immunosuppressive therapy (cancer chemotherapy and other immunosuppressive therapies) when possible.

**Possible reactions**

**Local reactions:**
- Soreness, erythema, swelling, local induration, decreased limb mobility and peripheral edema in the injected limb.
- Rarely, cellulitis-like reactions have been reported.

**Systemic reactions:**
- Fever, rash, arthralgia, arthritis, chills, nausea, vomiting, lymphadenitis, lymphadenopathy, headache, malaise, myalgia, asthenia, urticaria, hemolytic anemia (in patients who have had other hematologic disorders), anaphylactoid reactions, serum sickness, angioneurotic edema, paresthesia, leukocytosis, radiculoneuropathy, Guillain-Barré syndrome (GBS), febrile convolution, erythema multiforme and thrombocytopenia in patients with stabilized idiopathic thrombocytopenic purpura have been reported.

Notes:
- Re-immunization of healthy adults less than two years after the initial dose is associated with increased local and systemic reactions.
• Re-immunization after intervals of 3 – 5 years may be associated with higher adverse events particularly, pain and/or induration at the injection site.1,9
• Individuals who have had pneumococcal infections prior to vaccine administration may have increased reactions to pneumococcal vaccine usually localized to the injection site but may be systemic.11

Refer to: Adverse Events Following Immunization (AEFI), Policy for Alberta Immunization Providers.12

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<th>Pregnancy</th>
<th>Pregnant women with conditions that are a risk for IPD should receive pneumococcal vaccine as indicated.3</th>
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<td>Lactation</td>
<td>Breastfeeding women with conditions that are a risk for IPD should receive pneumococcal vaccine as indicated.3</td>
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References