



Pneumococcal Polysaccharide Vaccine (PPV23)

Frequently asked questions
for healthcare professionals



What is pneumococcal disease?

Pneumococcal disease is a bacterial infection caused by streptococcus pneumoniae of which there are more than 90 serotypes. The organism is frequently found in the upper respiratory tract of healthy individuals. It has been estimated that carriage of the bacteria may range from 10% of adults to 50% of children attending day care facilities.

Over the years streptococcus pneumoniae has become resistant to many medications making the treatment of pneumococcal infections much more difficult. Prevention of disease through vaccination is now more important than ever.

What are the symptoms of pneumococcal disease?

Pneumococcal infection is responsible for 50% of community acquired pneumonia and bacteraemia where the overall mortality rate can be as high as 25%. It can also cause sinusitis, osteomyelitis, bronchitis, meningitis and otitis media.

Who is most at risk of pneumococcal disease?

Pneumococcal disease can lead to significant morbidity and mortality, particularly amongst the very young, the very old, those with impaired immunity and those with anatomic or functional asplenia.

How is pneumococcal disease transmitted?

Transmission requires close contact with cases or carriers and is by droplet infection. Person-to-person transmission of the organism is common. The incubation period can be difficult to determine but can be as short as 1-3 days.

Which pneumococcal vaccines are recommended in Ireland?

Pneumococcal conjugate vaccines and pneumococcal polysaccharide vaccines are licensed in Ireland.

Pneumococcal conjugate vaccine (PCV)

PCV 13 – Prevenar 13 is recommended for the routine vaccination of all children in the primary childhood immunisation schedule.

Pneumococcal polysaccharide vaccine PPV23

This vaccine (Pneumovax 23) contains purified polysaccharide from 23 of the most common capsular types of streptococcus pneumoniae. This vaccine is recommended for those aged 65 years and older and “at-risk” adults and children over 2 years of age.

Who should be vaccinated with PPV23?

Everybody aged 65 years and over.

Those aged over 2 years who have any of the following:

- Asplenia or splenic dysfunction (including surgical splenectomy, sickle cell disease and coeliac disease)
- Candidates for, or recipients of, a cochlear implant
- Children under 5 years of age with a history of invasive pneumococcal disease, irrespective of vaccine history
- Chronic renal disease or nephrotic syndrome
- Chronic heart, lung, or liver disease
- Complement deficiency (particularly early component deficiencies C1, C2, C3, C4)
- CSF leaks either congenital or complicating skull fracture or neurosurgery
- Diabetes mellitus

- Down syndrome
- Immunosuppressive conditions (e.g. some B- and T-cell disorders, HIV infection, leukaemia, lymphoma, Hodgkin's disease) and those receiving immunosuppressive therapies
- Intracranial shunt
- Post haematopoietic stem cell transplant
- Solid organ transplant.

Vaccination is not recommended for healthy children and young adults, as there is little risk of pneumococcal infection.

Who should not receive PPV23?

PPV23 should NOT be given to those with a history of anaphylaxis to any of the vaccine constituents.

Precautions:

Acute severe febrile illness – defer until recovery.

Pregnancy:

PPV23 can be given if there is an urgent need for protection.

Are there any side effects from vaccination?

The most commonly reported adverse reactions are localised redness and swelling at the injection site (>10%). Headache, fatigue and myalgia may also occur.

Revaccination with PPV23 can produce severe local reactions especially if given within 5 years of previous injection.

Anaphylaxis is very rare. No other serious side effects have been reported for the vaccine.

How often is vaccination with PPV23 required?

Aged 65 years and older

Adults aged 65 years and older who have never received PPV23 require a once only dose, irrespective of immune status.

A **once only booster** vaccination is recommended 5 years after the first vaccination for those who received a previous dose at less than 65 years of age.

Less than 65 years of age

One booster vaccination is recommended 5 years after the first vaccination for those whose antibody levels are likely to decline rapidly e.g. asplenia, hyposplenism, immunosuppression including HIV infection, chronic renal disease, nephrotic syndrome or renal transplant.

Those who received PPV23 at less than 65 years of age require one further PPV23 booster at or after 65 years of age (five years after the previous dose).

If PPV23 was given during chemotherapy or radiotherapy a further dose vaccine is recommended 3 months after treatment.

Please see the PPV23 vaccination algorithm at the back of this leaflet.

When is a 3rd dose of PPV23 required?

Adults whose antibodies are likely to decline rapidly should receive two doses of PPV23 while aged less than 65.

They will need a third dose of PPV23 when they turn 65 – if at least five years have passed since their last dose of PPV23.

If an immunosuppressed person aged 65 or over has received PPV23 on or after their 65th birthday do they need a further dose of PPV23 after 5 years?

No. A person aged 65 or over who is immunosuppressed should only receive one dose of PPV23. This is because the immune response to the vaccine declines as people older.

Can PPV23 vaccine be given at the same time as the influenza vaccine?

Yes. Pneumococcal vaccine may be given at the same time as influenza vaccine but at a different site.

As there is considerable overlap in the target groups for both vaccines, it is appropriate to offer PPV23 to patients (if indicated) when they attend for their influenza vaccine.

PCV 13

PCV 13 – Prevenar 13 is recommended for the routine vaccination of all children in the primary childhood immunisation schedule and is given at 2, 6 and 13 months.

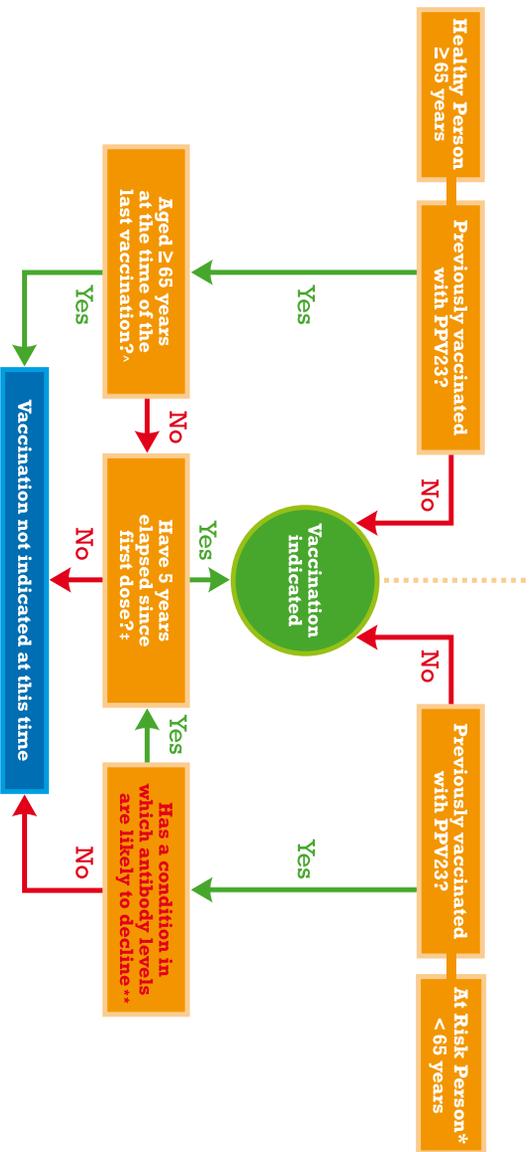
PCV13 may also be recommended for people who are in at-risk groups. However there is no national immunisation programme for PCV13 for at-risk groups.

Please refer to guidelines from the National Immunisation Advisory Committee guidelines for more details. <http://bit.ly/NIACCH16>

If both PCV and PPV23 are recommended, PCV should be given first, followed by PPV23 at least 2 months later. If PPV23 has been given first wait at least 1 year before giving PCV.



Pneumococcal Polysaccharide Vaccine (PPV23) Algorithm for Vaccination



* Asplenia or splenic dysfunction (splenectomy, sickle cell disease, coeliac syndrome), chronic renal, heart, lung, liver disease, diabetes mellitus, complement deficiency, immunosuppressive conditions, CA risk, cochlear implant recipients of PPV23 or pneumococcal polysaccharide vaccine (PPV15).

a. If vaccination has been given during chemotherapy or radiotherapy, re-vaccination 3 months after treatment is indicated.

** Those with no spleen, with splenic dysfunction, immunosuppression including HIV infection, nephrotic syndrome, renal transplant or chronic renal disease.



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Where can I get more information?

More information is available from the National Immunisation Office at: <http://bit.ly/pneumo23>

Visit www.hpra.ie or scan the QR code to read the licensed information (Patient Information Leaflet (PIL)) about the PPV23 vaccine.

