



सर्वोपेक्ष  
Ministry of Health & Family Welfare  
Government of India



# Frequently Asked Questions

for Frontline Health Workers



## PNEUMOCOCCAL CONJUGATE VACCINE (PCV)



Immunization Division  
Ministry of Health & Family Welfare  
Government of India  
January 2021



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## Frequently asked questions on Pneumococcal Conjugate Vaccine (PCV) introduction for Frontline Health Workers

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**Question 1. Which vaccine is being introduced into the universal immunization programme (UIP) to protect against pneumococcal disease?**

The pneumococcal conjugate vaccine (PCV) is being introduced in the UIP to protect children against pneumococcal disease.

**Question 2. What is pneumococcal disease?**

Pneumococcal disease is the name of a group of diseases caused by a bacterium called *Streptococcus pneumoniae* (also known as pneumococcus). Pneumococcus bacteria can spread to different parts of the body to cause a variety of diseases. *Streptococcus pneumoniae* is the leading cause of bacterial pneumonia in children under 5 years of age.

**Question 3. What is pneumococcal pneumonia?**

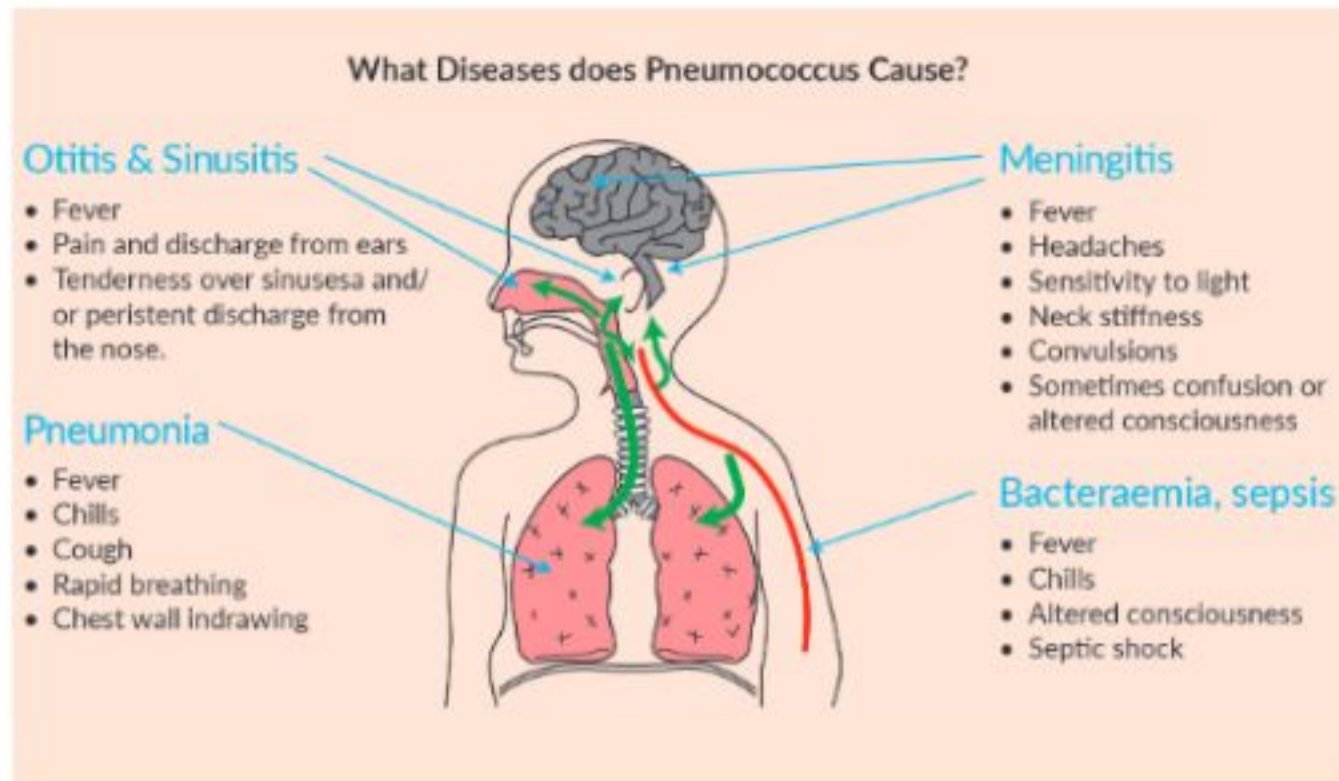
Pneumococcal pneumonia is a form of acute respiratory infection that causes inflammation and accumulation of fluids in the lungs. It makes breathing difficult and limits oxygen intake. Symptoms include cough, chest in-drawing, difficult and rapid breathing. If infants are severely ill, they may also be unable to feed or drink and may have convulsions, become unconscious and may even die.

**Question 4. Why do we vaccinate children against pneumococcal disease?**

Vaccination with PCV will prevent diseases and deaths due to pneumococcal disease in children. The risk of serious pneumococcal disease is the highest in the first year of life, but remains high throughout the first 24 months of life. Vaccinating infants will protect not only the infant, but also reduce the risk of pneumococcal disease among others in the community by reducing the circulation of the pathogen. Vaccination against pneumococcal disease is also a cost-effective way of preventing the disease.

**Question 5. What diseases does pneumococcus cause?**

Pneumococcal infections can lead to serious invasive diseases such as meningitis, septicemia and pneumonia, as well as milder but more common illnesses such as sinusitis and otitis media.

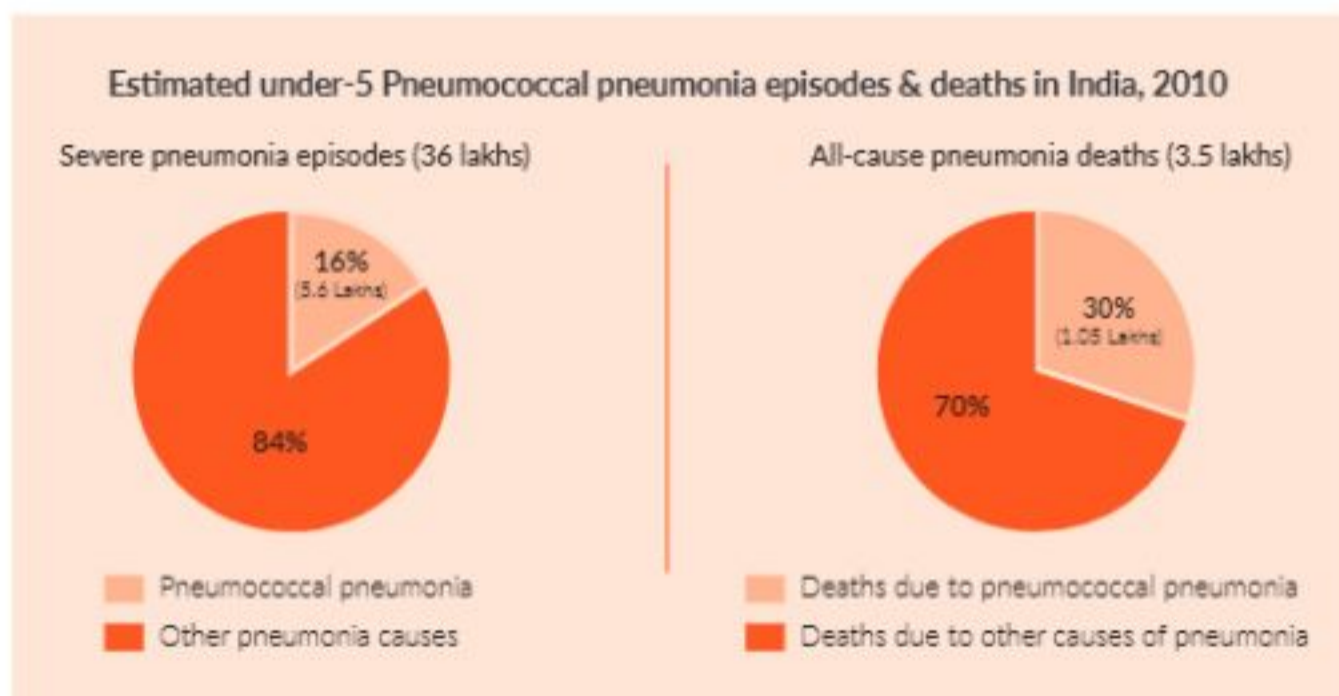


**Question 6. How pneumococcal disease spreads?**

Pneumococcal disease spreads from person to person through respiratory droplets (e.g., due to coughing or sneezing).

**Question 7. How common is pneumococcal disease?**

Pneumococcal disease constitutes a major public health problem. It is the leading cause of pneumococcal pneumonia. In India, pneumococcal pneumonia was estimated to have caused 105,000 deaths in 2010 and nearly 53300 deaths in 2015.

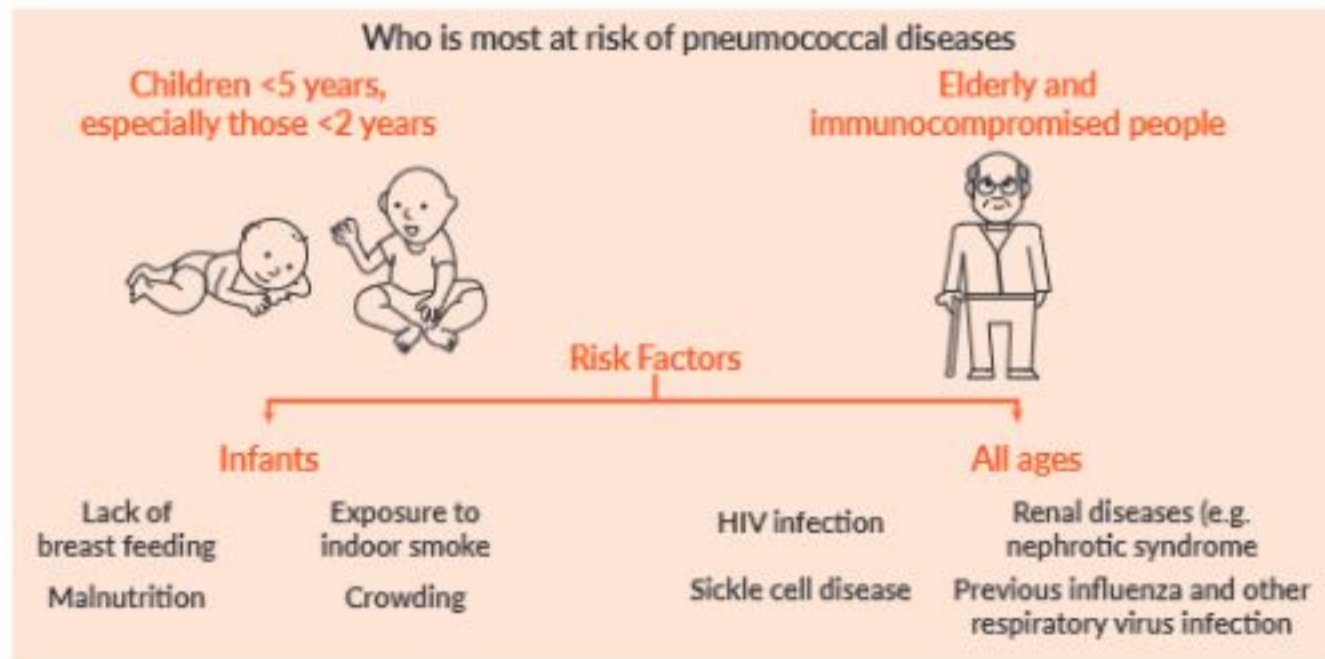


**Question 8. Who is at increased risk of pneumococcal disease?**

Most healthy individuals can fight the infection with their natural defenses. Young children and elderly individuals are most at risk.

The children most at risk of pneumococcal disease are:

- 🕒 Children under 5 years of age and especially those under two years of age are the most at risk of developing and dying from the disease.
- 🕒 Children who are immunocompromised [symptomatic HIV infection, Sickle cell disease, renal diseases (e.g., nephrotic syndrome)], or have history of previous influenza or other respiratory virus infection.
- 🕒 Infants and children who are exposed to additional risk factors: Malnutrition, lack of breastfeeding, exposure to indoor smoke and crowded living conditions.
- 🕒 Poor and marginalized populations with poor access to health care.



**Question 9. What is pneumococcal conjugate vaccine (PCV)?**

PCV protects young children starting at 6 weeks of age when they are most at risk of disease. The vaccine protects against severe forms of pneumococcal disease, such as pneumonia, meningitis and bacteraemia. It will not protect against these conditions if they are caused by agents other than pneumococcus.

**Question 10. Can pneumococcal disease be treated?**

Yes, and frontline health workers should be able to identify cases and refer to health facilities for evaluation and treatment.

**Question 11. What is the treatment for pneumococcal disease?**

Patients with pneumonia will require antibiotics and supportive care as per treatment protocols. The antibiotic of choice is amoxicillin. Early diagnosis and appropriate treatment leads to better outcomes.

**Question 12. How is pneumococcal pneumonia diagnosed?**

Pneumococcal pneumonia is diagnosed based on clinical evaluation and X-ray imaging when available.

**Question 13. Will vaccination with PCV prevent all types of Pneumonia?**

Vaccination with PCV will mainly protect the child from pneumococcal disease. It will not protect against pneumonia caused by agents other than pneumococcus.

**Question 14. What types of PCV are available?**

PCV is available as PCV10 and PCV13. Both PCV 10 and PCV13 will be available under the UIP.

**Question 15. Is PCV a new vaccine?**

In India, under the UIP, PCV has already been introduced in a phased manner, starting 2017. Currently it is available under the the UIP in 5 states namely Himachal Pradesh, Rajasthan, Uttar Pradesh, Madhya Pradesh and Bihar.

**Question 16. What is the presentation of PCV and how is it stored?**

PCV is a liquid vaccine and available in 4/5 doses per vial. It is a freeze-sensitive vaccine and should not be frozen. It should be stored at temperatures ranging between +2°C and +8°C in the basket of an ice-lined refrigerator (ILR). In the ILR, PCV should be placed adjacent to pentavalent vaccine.



**Question 17. How should PCV be transported between different cold chain points?**

Like other UIP vaccines, PCV should be transported in cold boxes with conditioned ice-packs.

**Question 18. How should PCV be transported to session sites?**

PCV should be transported to session sites along with other vaccines in a vaccine carrier with four conditioned ice packs.

**Question 19. Will the PCV vials have vaccine vial monitor (VVM)?**

Yes, PCV vials will have a vaccine vial monitor (VVM) on the body of the vaccine vial.

**Question 20. How many doses does each PCV vial have in the UIP?**

Each PCV vial will have four or five doses in the UIP.

**Question 21. Will Open Vial Policy be applicable to PCV?**

Yes, Open Vial Policy is applicable to PCV which will help us to prevent wastage of the vaccine.

**Question 22. What is the eligibility criterion for administering PCV?**

- ✔ A child coming for vaccination at 6 weeks of age or for the first dose of OPV1 & Penta-1 is eligible for PCV-1 along with other scheduled vaccines.
- ✔ A child who has received PCV-1 is eligible for PCV-2 at 14 weeks.
- ✔ A child who has received PCV-2 is eligible for PCV booster dose at 9 months.
- ✔ All children can receive PCV including those born prematurely, those with immunodeficiency and/or malnutrition.
- ✔ Only children with an allergy to the vaccine components or a previous allergic reaction to PCV should not receive vaccination.
- ✔ In delayed cases beyond 1 year of age, due doses can be given to a child only if a child has received at least one dose of PCV before his/her first birthday.

**Question 23. Is PCV expensive?**

- PCV is an expensive vaccine in the private sector.
- Under the UIP of Government of India, PCV will be given free of cost to all eligible infants in the fixed and outreach session sites.

**Question 24. What is permissible wastage for PCV?**

The permissible wastage for PCV is less than 10%.

**Question 25. What is the vaccination schedule for PCV?**

PCV will be given in three doses (2 primary doses and 1 booster) at 6 weeks, 14 weeks and 9 months of age.

Age	Vaccines given
Birth	BCG, OPV-0, Hepatitis B Birth dose
6 Weeks	OPV-1, Pentavalent-1, fIPV-1, Rota-1 & PCV-1
10 weeks	OPV-2, Pentavalent-2 & Rota-2
14 weeks	OPV-3, Pentavalent-3, fIPV-2, Rota-3 & PCV-2
9-12 months	MR1, JE1*, PCV-B
16-24 months	MR2, JE2*, DPT-B, OPV -B
5-6 years	DPT-B2
10 years	Td
16 years	Td
Pregnant Woman	Td1, 2 or Td Booster**

\*in select states and districts

\*\* one dose if previously vaccinated within 3 years

**Question 26. What will be the sequence of administration of PCV?**

OPV: Oral Polio Vaccine, → RVV: Rotavirus Vaccine, → fIPV: fractional-dose IPV, → PCV: Pneumococcal Conjugate Vaccine, → Penta: Pentavalent Vaccine.

**Question 27. What is the maximum age limit for giving the first dose of PCV?**

The upper age limit for giving the first dose of PCV is one year of age.

PCV vaccination schedule



OPV: oral polio vaccine; Rota: rotavirus vaccine; fIPV: fractional-dose IPV; PCV: pneumococcal conjugate vaccine; Penta: pentavalent vaccine; Vita A: Vitamin A; JE: Japanese Encephalitis vaccine; MR: measles-rubella  
 - JE in endemic districts

**Question 28. What should be done if a PCV dose is delayed?**

- 👉 The two primary doses and one booster dose of PCV should be given during the first year of life.
- 👉 If the doses are delayed within the first year of life,
  - Doses (both primary and booster) must be separated by a minimum interval of at least 8 weeks, to be given at the next scheduled immunization visit.
- 👉 In delayed cases beyond 1 year of age,
  - Due doses can be given to a child only if a child has received at least one dose of PCV before his/her first birthday.
  - For those with at least one previous PCV dose, the series should be completed at the earliest available opportunity.

**Question 29. What is the route, dose and site of injection for PCV?**

0.5 ml PCV is to be given as an intramuscular injection into the anterolateral aspect of the right mid-thigh in infants. If more than two injections are to be given in the same thigh then the distance between the two injections should be at least 2.5 cm (1 inch).

**Question 30. Is PCV safe?**

Yes, PCVs are considered safe in all target groups for vaccination, including immunocompromised individuals. PCV had been introduced into the national immunization programs of 146 countries by the end of June 2020.

**Question 31. Does PCV have any side effects?**

PCV is a safe and well-accepted vaccine. Severe adverse reactions attributable to the vaccine are extremely rare. Mild side effects such as pain at the injection site and fever can occur. As specified, single dose of paracetamol may be given if the child develops fever.

**Question 32. Can PCV be given to a premature infant (born before 37 weeks gestation)?**

Yes, a premature child can and should be vaccinated at or after 6 weeks of age.

Yes, a premature child can and should begin vaccination at 1 ½ month (6 weeks) of age or as soon as clinically possible after 1 ½ month (6 weeks).

**Question 33. Can PCV be given to a sick child?**

Yes, PCV can be safely administered to a child with immunodeficiency (e.g., HIV/AIDS, congenital or acquired immunodeficiency, sickle cell disease), malnutrition, or other underlying illnesses, using the same schedule as for any other child. These children are in particular need of PCV because their risk of pneumococcal disease is high. Children with mild acute illnesses can and should be immunized with PCV on time.

**Question 34. Can PCV be given to an immunodeficient child?**

Yes, PCV can be safely administered to a child with immunodeficiency (e.g., HIV/AIDS, congenital or acquired immunodeficiency, sickle cell disease) using the same schedule as for any other child. These children are in particular need of PCV because their risk of pneumococcal disease is high.

**Question 35. Are there any contraindications for use of PCV?**

The pneumococcal vaccine should not be given to the following persons:

- 🚫 those who have had severe allergic reactions to a prior dose.
- 🚫 those who are known to have had a severe reaction to another vaccine

containing diphtheria toxoid.

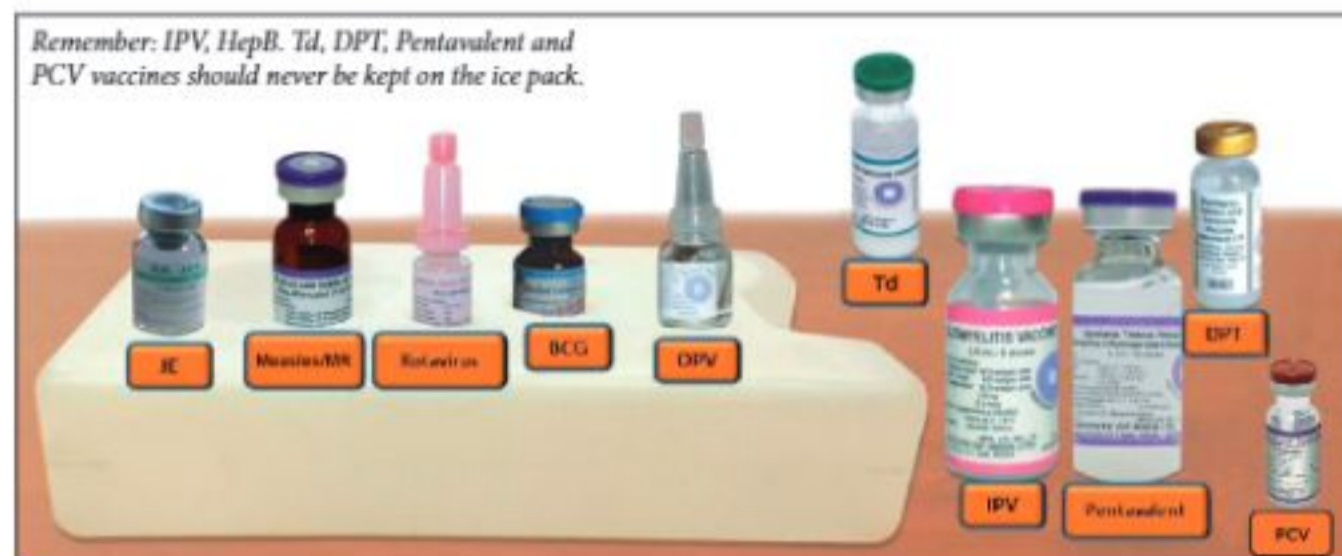
- those who have a severe illness; vaccination should be delayed until the condition improves.

**Question 36. Which vaccines should be kept on an ice pack at the immunization site?**

As per routine immunization guidelines, health workers are expected to take out one ice pack at the session site and use the same after opening the heat-sensitive vaccines.

On Ice Pack: BCG and Measles Rubella (place them in the wells on ice pack). OPV, RVV and JE vaccines should be placed on the surface of ice pack.

Remember– vials of freeze sensitive vaccines including fIPV, Td, DPT, Pentavalent and PCV should never be kept in touch with the ice pack.



**Question 37. What should you do if you find a frozen PCV vial?**

PCV is a freeze-sensitive vaccine. If you find a frozen PCV vial, do not use the vaccine.

Suspected frozen vials of DPT, Pentavalent, Td, Hep B, PCV vaccines can be tested for freezing through Shake Test procedure.

**Question 38. What messages should be given to the parents or care-givers?**

The four key messages should be given to parents/care-givers.



#### Four key messages for caregivers

- What vaccine was given and what diseases it prevents?
- What minor adverse events could occur and how to deal with them?
- When and where to come for the next visit?
- Keep the immunization card safe and bring it along at the next visit.

#### Question 39. Which government health facilities in our country will provide PCV?

PCV will be provided free-of-cost through routine immunization sessions in all government hospitals, dispensaries, PHCs, CHCs, sub-centers and outreach session sites. PCV will not be given in a house-to-house campaign mode.

#### Question 40. Should PCV be given to a child coming from a state which has not yet introduced PCV in its schedule?

Yes, PCV should be given to a child irrespective of the state where she/he comes from, as per the current guidelines.

#### Question 41. Will PCV be given in Intensified /Mission Indradhanush?

Yes, PCV will be given in Intensified /Mission Indradhanush following the same guidelines as for Routine Immunization.

#### Question 42. Where will the PCV dose be recorded in the MCP card?

The immunization component of MCP card has been revised to include PCV schedule (2 primary doses and 1 booster dose) at 6 weeks, 14 weeks and 9 months. The revised immunization component of MCP card is given on the next page.



**Question 43. Will PCV be a part of ASHA's full immunization incentive?**

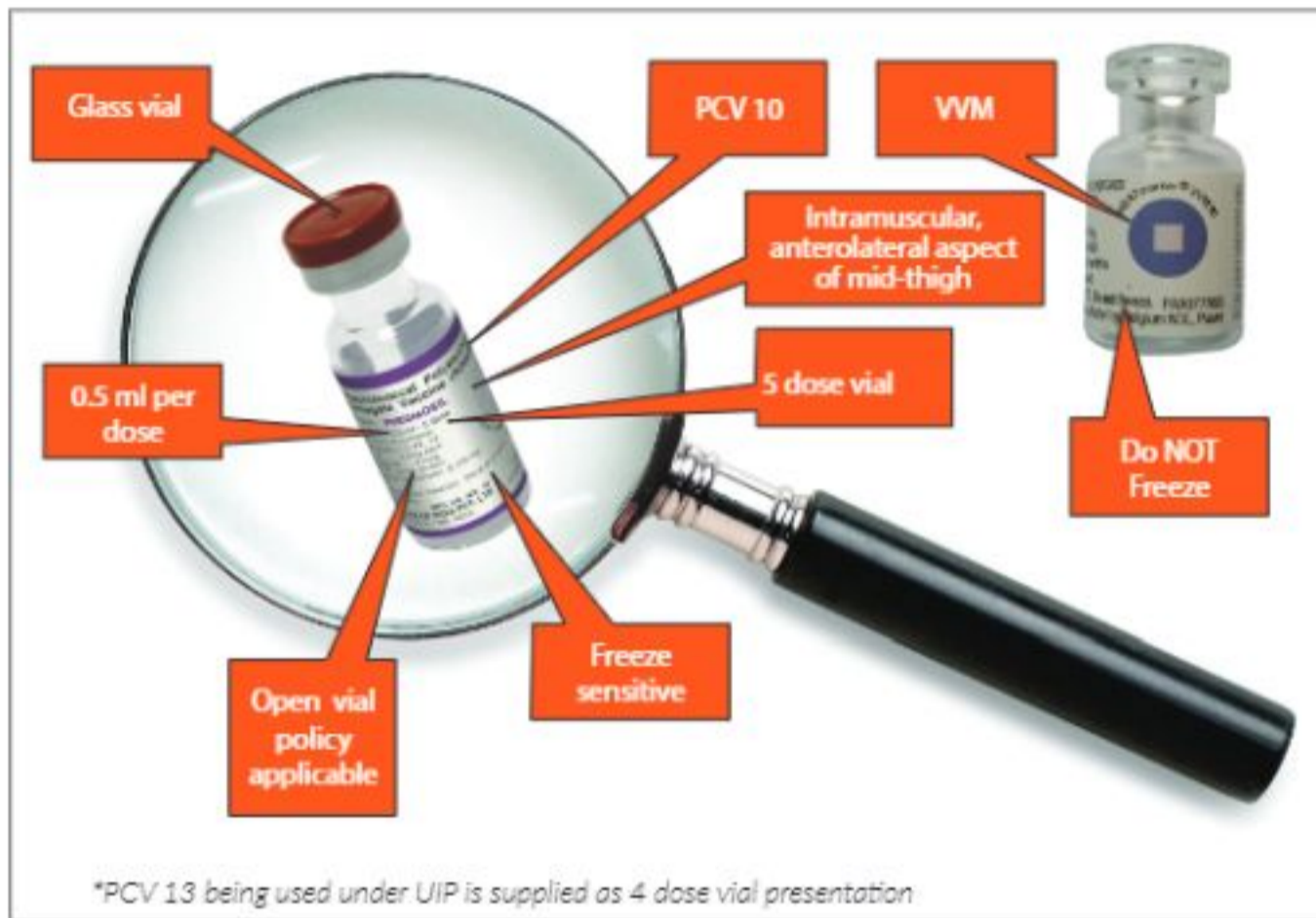
Yes, PCV will be a part of the national immunization schedule. The ASHA will be eligible for the full immunization incentive only if the child has received all vaccinations (within 1 year) as per the schedule.

**Question 44. Why do children need multiple injections on one visit?**

Giving a child several vaccines during the same visit allows the child to be immunized as soon as possible. This provides protection during the vulnerable early months of the child's life. In addition, giving multiple vaccinations at one time means fewer vaccination visits.

**Question 45. Is it safe to give multiple injections at one visit?**

Numerous studies have shown that giving multiple vaccinations during the same visit does not result in higher incidence of adverse events.



**REMEMBER**

- PCV is a freeze sensitive vaccine.
- All vaccines come with VVM - Check VVM before use.
- As part of open vial policy, all partially used vials should be sent back to the vaccine storage point the same day.
- PCV is an expensive vaccine.
- It will be provided free-of-cost to children under the UIP.

**If PCV found frozen**

- Do not use
- Mark the vial as shown below
- Discard vaccine as per guidelines
- Inform MO incharge & cold chain handler









## Key points about Pneumococcal Conjugate Vaccine (PCV) for ASHA, AWW and other mobilizers

- A new vaccine- Pneumococcal conjugate vaccine (PCV) has been added under Universal Immunization Programme. This will provide protection against pneumococcal pneumonia and other pneumococcal disease.
- Pneumococcal pneumonia is an infection of lungs in which the child has difficulty in breathing, chest indrawing, fever, coughing etc. If severe, it may even lead to death of a child.
- Pneumococcal disease spreads from person to person through respiratory droplets (e.g. due to coughing or sneezing).
- Doses: The PCV is given at 6 weeks, 14 weeks and then again at 9 months of age. You have to ensure that all eligible children get all three doses for effective protection from pneumococcal disease.
- Government is providing this vaccine free of cost at all fixed and outreach immunization sessions.
- Vaccine administration: The vaccine will be administered through an intramuscular injection on the right mid-thigh of the child.
- The parents/caregivers have to be informed about the date and location of next session. Also, they should bring the MCP card when they visit the immunization session for the next due dose.
- After vaccination, if the child has any adverse events, please inform ANM and Medical Officer and refer the child to the nearest health centre or the district hospital.



Ensure all children in your area receive all 3 doses of Pneumococcal Conjugate Vaccine (PCV) to be fully protected against pneumococcal pneumonia and other pneumococcal diseases.

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