



Ministry of Health & Family Welfare
Government of India



Be Wise!
**Get your child
fully immunized**

MO RI Training Handbook

Topic: **Frequently Asked Questions**

Unit Number- 17

General Queries on Immunization



What is Vaccination?

- **Definition:** Process of administering vaccines to develop the body's protective response.
- **Outcome:** Immunization, making an individual resistant or immune to a disease

How Do Vaccines Work?

- **Mechanism:** Vaccines contain weakened or killed versions of viruses or bacteria (antigens).
- **Response:** Stimulate the immune system to produce antibodies against disease-causing organisms

What are the different types of vaccines?

- **Live Attenuated Vaccines:** Weakened viruses/bacteria (e.g., BCG, MR).
- **Inactivated/Killed Vaccines:** Inactivated with heat/chemicals (e.g., IPV).
- **Subunit or Recombinant Vaccines:** Genetic material from disease-causing organisms (e.g., Hepatitis B).
- **Toxoid Vaccines:** Made from inactivated toxins (e.g., Tetanus toxoid).

General Queries on Immunization



What is Herd immunity or population immunity?

- **Definition:** Protection of non-immune members by a high number of immune individuals
- **Requirement:** Achieved when a high proportion of the community is vaccinated.

How are vaccines introduced in UIP and how are immunization schedules decided? Mechanism:

- **Decision:** Guided by National Technical Advisory Group on Immunization (NTAGI).

Schedule: Based on National Immunization Schedule (NIS)

- A child must visit 5 times by first birthday and 7 times by fifth birthday for vaccination as per the National Immunization Schedule (NIS).
- Hence, the newer vaccines intended for use are optimally scheduled and fitted in the existing NIS. (E.g. PCV)

General Queries on Immunization



Why are vaccines administered at specific sites?

- **Reason:** Maintain uniformity and help in verifying vaccine receipt.

Example: BCG administered on the left upper arm

Why should there be a minimum gap of 4 weeks between two doses of a vaccine?

- There should be a minimum of 4 weeks gap between two doses because decreasing the interval between doses may not achieve optimal antibody production required for protection

What is “Open Vial Policy”? Which are the vaccines on which it applies?

- **Guidelines:** Reuse and storage of open vaccine vials to minimize wastage.
- **Applicable Vaccines:** Hep B, OPV, IPV, PCV, DPT, Td, JE (killed), RVV, Pentavalent.
- **Note:** All vaccine vials must be marked with the date & time of opening/reconstitution of the vial at first use

General Queries on Immunization

Is it safe to give multiple injections to the baby on the same day?

- **Safety:** It is safe to give multiple injections to a baby.
- **Risk:** Not giving vaccines makes the child vulnerable to diseases.

How long can a bottle of Vitamin A be used, once opened?

- **Usage:** Bottle used within 8 weeks of opening.
- **Schedule:** Administered at 9 months, 18 months, and then every 6 months till age 5.

What is the dose of Zinc to be used along with ORS in the treatment of diarrhea?

- **Dosage:** 10 mg for infants (2-6 months), 20 mg for children (6 months to 5 years).
- **Duration:** 14 days.

Questions on Immunization schedule

Queries on Immunization Schedule

If a child is brought late for a subsequent dose, should one restart with the first dose of a vaccine?

- **Late Doses:** Do not restart; continue from where left off
- **Multiple Vaccines:** Can be given on the same day at recommended sites.

If a child who has never been vaccinated is brought in at 9 completed months but before 12 completed months of age, then, can all the due vaccines be given to a child on the same day?

Usage:

- Yes, all the due vaccines can be given during the same session but at recommended injection sites, using separate AD syringes.
- It is safe and effective to give BCG, Pentavalent, bOPV, IPV, MR, RVV, PCV, JE (where applicable) vaccines and Vitamin A at the same time to the 9-month-old child, who has never been vaccinated.
- **NEVER MIX TWO VACCINES IN ONE SYRINGE.** Always use separate syringe for one vaccine

Queries on Immunization Schedule



If a child who has NEVER BEEN VACCINATED and is brought in immediately after completing 12 months of age, (beyond one year) what vaccines would you give?

- This child should be administered DPT 1, bOPV 1, MR-1, JE-1 ((if applicable) and also Vitamin A solution. The subsequent doses of DPT (2 and 3), bOPV (2 and 3), MR-2, and JE-2 should be given at an interval of 4 weeks. Give booster dose of bOPV and DPT at a minimum of 6 months after administering bOPV 3/DPT 3
- As per the national immunization schedule this child need not be given – BCG, Rotavirus, Penta and IPV, PCV

Which vaccines can be given to a child between 1 and 5 years of age who has never been vaccinated?

- This child should be administered 3 doses of DPT , 3 doses of bOPV, 2 doses of MR and 2 doses of JE (where applicable) and 2ml of Vitamin A solution. These doses should be given at an interval of 4 weeks. Such a child will not receive BCG, Hepatitis B, Rotavirus, Penta and IPV.
- Give booster dose of bOPV/DPT at a minimum of 6 months after administering bOPV 3/DPT 3.
- *Note: In an unvaccinated child is more than 16 months of age remember the interval between MR 1 and MR 2 is 4 weeks and for JE 1 and JE 2 (killed) (in districts where JE vaccine is given) the interval is also 4 weeks

Queries on Immunization Schedule



Which vaccines can be given to a child between 5 and 7 years of age who has never been vaccinated?

- Give of DPT 1, 2 and 3 at 4 weeks intervals. Give booster dose of DPT at a minimum of 6 months after administering DPT 3 up to the age of 7 years.
- **Above 7 years** – Td vaccine should be used in place of DPT for the remaining doses. Thereafter, this child continues to receive the Td vaccine at 10 years and 16 years as per the NIS..

Why are the DPT, Hep B (birth dose), IPV and pentavalent vaccines given in the anterolateral mid-thigh and not the gluteal region (buttocks)?

- **Reason:** The antero-lateral aspect of midthigh has sufficient muscle mass to absorb the vaccine
- **Risk:** Vaccine deposited in the fat of the gluteal region does not invoke the appropriate immune response. In younger age the gluteal region muscle mass is not well developed and the injections in this region can injure Sciatic nerve.

What are the upper age limits for various vaccines?



- **BCG:** up to one year of age for childhood vaccination
- **Hepatitis B (Birth dose):** till 24 hours of birth
- **Zero dose bOPV:** till 15 days of birth
- **bOPV:** upto five years of age
- **IPV:** Till 1 year of age
- **Pentavalent:** Till 1 year of age
- **RVV:** Till 1 year of age
- **PCV:** Till 1 year of age
- **MR:** up to five years in UIP and in MR campaigns, the vaccine is given upto 15 years age group
- **DPT:** up to 7 years, beyond this age administer the Td vaccine
- **JE (both live & killed):** up to 2 years

Vaccine-Specific FAQs

BCG



Why is BCG given only up to 1 year age of the child in UIP?

- Most children acquire natural clinical/sub-clinical tuberculosis infection by the age of 1 year. This protects them against severe forms of childhood tuberculosis, e.g., TB meningitis and miliary disease. Hence as per the current NIS, BCG is given only up to 1 year of age of child. Any change in the schedule shall be intimated appropriately by a Government Order

If no scar appears after administering BCG, should one re-vaccinate the child?

- There is no need to re-vaccinate the child even if there is no scar

Why do we give 0.05 ml dose of BCG to new borns (below 1 month of age)?

- Dose of 0.05 ml is sufficient to elicit adequate protection in newborn under 1 month of age

Hepatitis B



- **What is hepatitis?**
- Hepatitis is an inflammation of the liver, most commonly caused by a viral infection. There are five main hepatitis viruses, referred to as types A, B, C, D and E. These five types are of the greatest concern because of the burden of illness and death they cause and the potential for the spread of outbreaks and epidemics. In particular, types B and C lead to chronic disease in hundreds of millions of people and, together, are the most common cause of liver cirrhosis and liver cancer.
- Hepatitis A and E are typically caused by ingestion of contaminated food or water. Hepatitis B, C and D usually occur as a result of parenteral contact with infected body fluids. Common modes of transmission for these viruses include receipt of contaminated blood or blood products and using contaminated equipment in invasive medical procedures. For hepatitis B, the causes are transmission from mother to baby at birth and also by sexual contact.
- Acute infection may occur with limited or no symptoms or may include symptoms such as jaundice (yellowing of the skin and eyes), dark urine, extreme fatigue, nausea, vomiting and abdominal pain.

Hepatitis B



What is the “birth dose” of hepatitis B?

- This refers to the dose given within 24 hours of birth. A child vaccinated with Hep B after
- more than 24 hours of birth is not considered to have received the birth dose

Why is the birth dose of the Hepatitis B vaccine given only within 24 hours of birth?

- The birth dose of the Hepatitis B vaccine is effective in preventing perinatal transmission (from mother to child) of hepatitis B only if given within the first 24 hours.

Why is Hepatitis B vaccine in combination with Pentavalent vaccine given only till 1 year of age?

- Hepatitis B in combination with Pentavalent vaccine is given after 6 weeks and up to 1 year of age because infections during the first year of age have a 90% chance of becoming chronic as compared to 30% during 1–5 years and 6% after 5 years. Persons with chronic infection have 15–25% risk of dying prematurely due to HBV- related liver cirrhosis and cancer.

Pentavalent Vaccine



What is the Pentavalent vaccine?

- Pentavalent vaccine is a vaccine that contains five antigens (Diphtheria + Pertussis + Tetanus+ Hepatitis B + Haemophilus influenzae type b)

How is the pentavalent vaccine more advantageous?

- The addition of Hib vaccine provides protection against Haemophilus Influenzae type b related diseases (bacterial meningitis, pneumonia and others)
- The benefit of the Hepatitis B combination in Pentavalent has been explained.
- Operationally, the Pentavalent vaccine per se shall reduce injection load from 9 (3 for DPT, 3 for Hep B & 3 for Hib) to 3 (reduction of 6 injections).
- With introduction of Pentavalent, 1 antigen was added, while number of injections reduced to 3.

What is the schedule for the Pentavalent vaccine?

- As per the National Immunization Schedule, three doses of pentavalent vaccine are to be administered. The first dose is given only after a child is 6 weeks old. The second and third doses are given at 10 and 14 weeks of age, respectively. There is no booster dose recommended under UIP

Pentavalent Vaccine



For what reasons should a child not be given the Pentavalent vaccine?

- A child below 6 weeks of age should not be given the Pentavalent vaccine.
- Severe allergic reactions – although serious side effects have not been reported, a child who has had a severe reaction to the Pentavalent vaccine earlier should not be given another dose.
- Children with moderate or severe acute illness should not be administered a Pentavalent vaccine until their condition improves. Minor illnesses, however, such as upper respiratory infections (URI) are not a contraindication to vaccination

What vaccine will be given to a child who has received at least one dose of pentavalent vaccine before his/her first birthday?

- If a child has received at least one dose of pentavalent vaccine before his/her first birthday, the child should be administered the due pentavalent doses at a minimum interval of 4 weeks, at the earliest available opportunity

What are the common side-effects of the Pentavalent vaccine?

- Pentavalent vaccine has not been associated with any serious side effects. However, redness, swelling and pain may occur at the site where the injection was given. These symptoms may appear the day after the injection is given and last from 1 to 3 days. Less commonly, children may develop a fever for a short time after immunization. The child should be given syrup paracetamol (125 mg per 5ml) to relieve pain.

Pentavalent Vaccine



After introduction of Pentavalent vaccine, will DPT and Hep B be required?

- Yes, Hep B birth dose (within 24 hours) for institutional deliveries and DPT boosters at 16 – 23 months and 5 – 7 years will continue

Is there a need for ‘acellular’ pertussis in the NIS?

- The Pertussis vaccine is also available as ‘acellular’ pertussis; however, such beneficiaries shall require a booster at 10 years of age. As per the WHO position paper there is no requirement for countries to switch from whole cell pertussis to acellular pertussis and vice-versa.
- Since NIS contains Pentavalent with ‘whole cell’ Pertussis, hence there is no requirement for a booster at the later stage and hence no need for inclusion of Tdap. And the country uses Td after 7 years of age
- **Why is the Haemophilus Influenzae Type b (Hib) vaccine in combination with the Pentavalent vaccine given only till 1 year of age?**
- Hib B is one of the leading causes of meningitis and pneumonia in children aged less than 5 years. Hib most commonly occurs in less than 5 years (4mths-18mths are at the highest risk). It is important to prevent disease and immunize very early in life. Beyond 1 year, the child is assumed to have been affected with natural infection, hence the vaccination shall have no role

Rotavirus



What is Rotavirus?

- Rotavirus is a highly contagious virus. It is the most common organism that causes diarrhea among children which may lead to hospitalization and death. Approximately 50% of Rotavirus-associated deaths occurred in the first year of life and about 75% occur in the first two years of life. The burden of Rotavirus diarrhea and associated death varies by region, age and sex in India

What are the clinical features of Rotavirus diarrhea?

- Rotavirus diarrhea has an incubation period 1-3 days. It presents usually with sudden onset of watery stools, often accompanied by fever and vomiting. Sometimes accompanied with abdominal pain. The diarrhoea and associated symptoms may last for 3-7 days

How effective is the Rotavirus vaccine?

- Sanitation and hygiene improvements have less impact on the transmission of Rotavirus diarrhea which is thought to be due to person-to-person contact. The only specific intervention strategy is immunization.
- The available Rotavirus Vaccines are observed to be effective in preventing severe rotavirus diarrhoea by 54-60%. The protective effect of the Rotavirus vaccine lasts through 2nd year of life

Rotavirus



Is Rotavirus vaccine being used in any other country in the world?

- Rotavirus vaccine is being used in national immunization program in more than 114 countries as on 2022. Rotavirus vaccine has also been in use by private practitioners in India for several years.

Will vaccination with Rotavirus vaccine prevent all diarrheas?

- No, it does not prevent all diarrheas. Diarrhea is caused by many organisms of which Rotavirus is one of the leading causes for diarrhoea in children. Rotavirus vaccine is effective in preventing diarrhoea due to Rotavirus only. So, the child may still get diarrhea due to other germs and causes even after receiving Rotavirus vaccine
- The Rotavirus vaccine along with other interventions for prevention and management of diarrhea including exclusive breastfeeding for 6 months and continued breastfeeding with appropriate complementary feeding, vitamin A supplementation in children 9-59 months, early detection and appropriate case management of diarrhea with oral rehydration solution (ORS) and zinc (for 14 days), access to safe drinking Water, Sanitation and Hygiene interventions (WASH), will help in reducing under-five mortality due to diarrhea

How and when is the Rotavirus vaccine given?

- Rotavirus vaccine is an oral vaccine. The dose size of Rotavirus vaccine varies from manufacturer to manufacturer. Presently supplied Rotavirus vaccine from 2 manufacturers under the NIS should be given in 3 doses at 6, 10 and 14 weeks. The vaccine is administered as 5 drops or, 2 ml based on the presentation of different manufacturer supplied under the National Immunization Programme.

Rotavirus



What is the maximum age limit for giving the first dose of Rotavirus vaccine?

- The upper age limit for the first dose of Rotavirus vaccine is one year of age. If a child has received only the first dose of Rotavirus vaccine by 12 months of age, two more doses of the vaccine should be given at an interval of 4 weeks between the two doses to complete the course at the earliest

What should be done if a child has received one or two doses of Rotavirus vaccine in a private facility?

- If the parents want to vaccinate their child from the public sector after receiving one or two doses of Rotavirus vaccine in a private facility, the remaining doses may be provided as per the NIS. Under the UIP, interchangeability between different Rotavirus vaccines is permitted.

What If the child spits out the Rotavirus vaccine or vomits immediately after having it?

- Repeat the dose (2.5ml). In case an incomplete dose is administered (the infant spits out or regurgitates most of the vaccine), repeat the dose in the same vaccination visit. To prevent spitting, please position the tip (nozzle) of the 6ml oral syringe towards the inner cheek (buccal cavity). Administer the vaccine slowly. Avoid administering the vaccine over the tongue. It should also be ensured that the tip of the syringe (nozzle) is not touched with finger before administration

Inactivated Polio Vaccine



What is IPV?

- IPV refers to Inactivated Poliovirus Vaccine administered by injection and it contains all 3 types of polioviruses. Evidence suggests that IPV vaccine, when used along with bOPV (which contains only Type 1 and Type 3 live attenuated vaccine viruses), increases the protection of the individual as well as the community. IPV together with OPV prevents re-emergence and reinfection of wild poliovirus (WPV). tOPV has been withdrawn globally in 2016 from all countries and only bOPV is in use in its place.

Will IPV (injection) replace OPV (drops)?

- No, IPV (injection) will not replace bOPV (polio drops), since IPV is recommended to be administered in addition to bOPV.

What is the benefit of IPV?

- IPV is the only available vaccine which gives protection against Polio virus type 2 apart from Polio virus type 1 and 3. It provides much-needed additional protection against polio and protects a child as well as other children in our community. Evidence shows that when IPV is used along with bOPV, it builds better mucosal (intestinal) immunity than when bOPV is used alone; it thereby increases both the protection of the individual and the community. To maximize childhood immunity and move towards global polio eradication, it is recommended that both vaccines be used together.
- IPV is introduced to mitigate the risk of emergence of type 2 VDPVs following global switch.

Inactivated Polio Vaccine



Is IPV safe?

- Yes, IPV is considered very safe, whether given alone or in combination with other vaccines.

Are there any contraindications for use of IPV?

- IPV should not be administered to children with a documented or known allergy to streptomycin, neomycin or polymyxin B, or with a history of a previous allergic reaction after IPV injection.

Is it safe to give IPV and bOPV together?

- Yes, it is absolutely safe to give IPV and bOPV together. It is also important – and best – for a child to receive both IPV and OPV. Together, these two vaccines provide safe and strong protection against polio. If a child only receives one of the vaccines they will not be as well protected as the child that has received both the vaccines. Primary doses of bOPV (bOPV1, and bOPV 3) should be completed as per schedule.

How and when is IPV to be administered?

- fIPV is to be given as a fractional dose (0.1 ml) intradermally in the Right arm of the child
- Fractional IPV (fIPV) is given in 3 doses at 6 and 14 weeks along with bOPV 1 and bOPV 3 and third dose of fIPV is to be given at 9-11 months.

Measles – Rubella



What are Measles / Rubella diseases?

- Measles is a highly infectious disease causing illness and death due to complications in the form of diarrhea, pneumonia or brain infection mostly among the children less than five years of age. The deaths can even happen 2 years after the disease due to measles-related complications and however, rarely these deaths are attributed to measles disease.
- Rubella is a mild disease but when infection occurs in early pregnancy, it has the potential to cause spontaneous abortions, fetal deaths, stillbirths and serious congenital defects (CRS) in the child causing lifelong disabilities

What is Congenital Rubella syndrome (CRS)?

- CRS is a set of serious congenital defects a child may be born with when a pregnant woman gets Rubella infection in early pregnancy, causing blindness, deafness, heart defects, mental retardation, liver disorders and other haematological disorder, incompatible with normal living.

Measles – Rubella



Does a child need to be vaccinated if she or he has history of any fever-rash illness including measles or rubella disease?

- There are multiple causes of fever rash like illness. Therefore, every child must be vaccinated with two doses of MR vaccine, as per the national immunization schedule at the recommended ages, irrespective of any past fever-rash illness.
- Can a child less than 9 months of age be given MR vaccine?
- No. A child less than 9 months of age should not be given MR vaccine in Routine Immunization. However, if there is a lab confirmed MR outbreak and the percentage of children less than 9 months of age is more than 10% of the cases in the outbreak, then a child aged 6 to 9 months of age can be given MR vaccine as per the special GOI advisory. However, these children should get the routine doses of MR vaccines as per NIS.

If a child has received the Measles-Rubella (MR) vaccine before 9 months of age, is it necessary to repeat the vaccine later?

- If it is given before 9 months inadvertently, , it has to be repeated as per the National Immunization Schedule, i.e after the completion of 9 months until 11 months of age as 1st dose and at 16-24 months as 2nd dose in RI.

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If a child comes after 2 years for the first dose, then can he/she get the second dose?

- All efforts should be made to immunize all children at the right age i.e. the first dose at completed 9 months to 11 months and the second dose at 16-24 months. However, if a child has missed one dose or both the doses, these need to be given to the child up to the age of 5 years at one month interval

If a child has received all vaccines as per the national immunization schedule, dose she or he need to be vaccinated during supplementary MR campaigns?

- Yes, in addition to the recommended national immunization schedule the child (if eligible as per age group targeted) must be vaccinated with supplementary MR vaccines during campaigns

As MR and JE vaccine doses are recommended for the same age group, can they be given together?

- Yes, two live injectable vaccines can be administered simultaneously at different sites,
- otherwise at a minimum interval of 28 days.

Japanese Encephalitis



What is Japanese encephalitis and what is acute encephalitis syndrome (AES)?

- Japanese encephalitis (JE) is a severe, disabling viral disease spread by infected culex mosquitoes, primarily in the agricultural regions of Asia. The disease affects the central nervous system and can cause severe complications, seizures, and even death
- Clinically, a case of acute encephalitis syndrome (AES) is defined as a person of any age, at any time of the year with acute onset of fever and a change in mental status (including symptoms such as confusion, disorientation, coma, or inability to talk) and/or new onset of seizures (excluding simple febrile seizures). Other early clinical findings may include an increase in irritability, somnolence or abnormal behaviour greater than that seen with usual febrile illness (WHO)
- AES including JE is a group of clinically similar neurological manifestations caused by several different viruses, bacteria, fungus, parasites, spirochetes, chemical/toxins, etc. Some other causes of AES could be tuberculosis, meningitis, viral encephalitis, cerebral malaria, etc

How common is JE?

- JE is the leading cause of viral encephalitis in Asia. Though 30,000 to 50,000 cases and 15,000 deaths are reported each year.

Japanese Encephalitis



Where is JE endemic in India?

- JE is endemic in certain parts of the country. At present, JE vaccination under UIP is being provided in 333 districts of the country.

Who is at risk for JE?

- People living in rural rice-growing and pig- farming regions face increased risk. Cases are also found in the peri-urban parts of cities. In areas where JE has been present for many years, the disease is most frequently seen in children between the ages of 1 and 15 years; however, cases are seen in adults too.

Which vaccine is used in JE? Indigenously manufactured killed JE vaccine is used in the NIS. What is the schedule of JE vaccine in the UIP?

- Indigenously manufactured killed JE vaccines are being used under the NIS. And as per the interim recommendation from the NTAGI, JE vaccines from various manufacturers are programmatically interchanged.
- Two doses of JE vaccine are administered in UIP in all JE endemic districts of the country. The first dose of JE vaccine is given to infants aged 9–11months along with the first dose of MR vaccine and the second dose is given along with DPT booster dose and M R vaccine second dose.

Japanese Encephalitis



How is the JE vaccine introduced for the first time?

- JE vaccine is introduced in a JE endemic district in campaign mode for children between 9 months to 15 years of age

If a child more than 9 months but less than 24 months who has never received any JE vaccine comes for immunization, how should JE vaccine be administered?

- The first dose should be given at first contact and the second dose should be given at an interval of 1 month following the first dose. Remember, that the upper age limit for JE under UIP is 2 years.

Pneumococcal



What is pneumococcal disease?

- Pneumococcal disease is a group of diseases caused by the bacterium *Streptococcus pneumoniae* (also known as pneumococcus).
- The most serious of these diseases are pneumonia, meningitis, and blood stream infections.
- *Streptococcus pneumoniae* is the leading cause of bacterial pneumonia in children under 5 years of age.
- It is important to note that, against all the pneumonia-causing organisms, NIS already has vaccines against many like Diphtheria, pertussis, Measles, Hib, and now Pneumococcal too.

How common is pneumococcal disease?

- Pneumococcal disease constitutes a major public health problem.
- In India, pneumococcal pneumonia was estimated to have caused approximately 55,000 deaths in 2021.
- Beyond the pneumonia cases there are other serious pneumococcal cases and deaths from blood stream infections (sepsis) and meningitis.

Pneumococcal



How is pneumococcal disease spread?

- Pneumococcus spreads from person to person (coughing, sneezing or close contact). Many people have pneumococcus in their nasopharynx for days or weeks at a time. In most cases the pneumococcus disappears from the nasopharynx without causing any symptoms, but sometimes disease develops

What diseases does pneumococcus cause?

Diseases that are often caused by pneumococci include:

- Pneumonia,
- Bacteraemia, sepsis: bloodstream infection,
- Bacterial meningitis: infection of the membranes and fluid that covers and protects the spinal cord and brain
- Middle ear infection (otitis media)
- Sinusitis, Bronchitis

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- Middle ear infection (otitis media)
- Sinusitis, Bronchitis

Pneumococcal



Who is at increased risk of pneumococcal disease?

- Young children and elderly individuals are most at risk.
- The children most at risk of pneumococcal disease are:
 - Children under 5 years of age, especially those under 2 years of age
 - Immunocompromised children
 - Those with influenza or other respiratory virus infections can get a second infection with pneumococcus.
 - Malnutrition, lack of breastfeeding, exposure to indoor smoke and crowded living conditions.
 - Poor and marginalized populations with poor access to health care

What is the vaccination schedule for PCV?

- PCV is to be administered in three doses (2 primary doses and 1 booster) at 6 weeks, 14 weeks and 9 months of age.

Recap – key points

- **BCG:** Given up to 1 year to protect against severe childhood tuberculosis
- **Hepatitis B:** Birth dose within 24 hours to prevent perinatal transmission, further 3 doses part of Pentavalent, prevents chronic hepatitis, and complications in adulthood
- **Pentavalent Vaccine:** Contains five antigens; Diphtheria, Pertussis, Tetanus, Hepatitis B and Haemophilus Influenza B(Hib) reduces injection load, prevents five diseases
- **Rotavirus Vaccine** is Given orally at 6, 10, and 14 weeks, prevents severe diarrhea in children
- **Inactivated Poliovirus Vaccine (IPV)** Given as fIPV intradermally along with bOPV orally at 6, 10, and 14 weeks. Provides protection against all three types of polioviruses
- **Measles/Rubella Vaccine** is given two doses as sub cutaneous as per national immunization schedule. Prevents Measles causes severe illness; Rubella causes congenital defects
- **Japanese Encephalitis (JE)** is given as sub cutaneous injection two doses in endemic districts. Prevents Severe viral disease spread by mosquitoes
- **Pneumococcal Vaccine,** given as intramuscular injections Three doses at 6 weeks, 14 weeks, and 9 months, prevents pneumonia, meningitis and sepsis



Micro-planning

Queries on Micro-planning



RI micro-plans already exist in my PHC/UHC. Do I need to review them?

Yes, RI micro-plans require to be reviewed every quarter. This ensures that all areas and all beneficiaries are included in the RI session due lists

Why should we do the house-to-house survey

The house-to-house survey is the most important activity in RI microplanning. It gives the exact count of pregnant women and eligible children, and is the basis for calculation of injection loads. This injection load estimation determines the number of sessions to be conducted in an area.

- Head counting identifies all beneficiaries (children and pregnant women) for immunization;
- When done correctly, it makes sure that no beneficiary is missed;
- It provides an opportunity to build community confidence in the programme;
- Due list preparation is based on head count;
- The head count is important for estimation of injection loads, vaccines and logistics.

Queries on Micro-planning

What should an ANM do if there is no ASHA in her area?

- After discussing with the sector MO or MOIC, she should plan for an ASHA from nearby to cover this area.
- With support from the ICDS supervisor, an AWW can also be deputed to help with the head counting.

OR

- After discussion with the MOIC, a local person who is involved with the polio programme, or who supports mobilization, can be called in to conduct the head counting after receiving training from the MO

Is there any incentive for ASHAs under NHM for conducting house to house survey?

- Yes, an ASHA is to receive amount as per NHM norms twice in a year for conducting the house-to-house survey.

Queries on Micro-planning



Who is expected to conduct immunization at vacant sub-centres?

- Any ANM of the adjoining area / SC with more than one ANM/ who has no planned sessions on the day should be delegated to conduct RI sessions in vacant sub-centres.
- In some cases, ANMs from other blocks can be deployed by block/district officials to conduct sessions for such vacant areas.
- In urban slums with out services , sessions can be planned by hired ANMS paid as per NHM norms.



Thank You!