

Nepal Paediatric Society Guidelines for Childhood Immunization

The existing EPI programme of Nepal delivers the following vaccination free of cost in different health facilities (hospitals, health centers, health posts and sub health posts) including the private sector health delivery institutions. These vaccines are BCG, DPT, Polio, Measles and Tetanus. These vaccines are termed as essential vaccines. NEPAS recommends that these essential vaccines be given to all infants before the age of one year as per National Immunization schedule shown below (in cases where these are not completed before the age of one year, they should be completed at the earliest opportunity thereafter):

Table I

1. National Immunization Programme (EPI)

Name of Vaccines	Prevents against	Time of vaccination
BCG	Tuberculosis	Birth or as soon as possible
DPT	Diphtheria, Whooping cough and Tetanus	1st dose at 6 weeks, 2nd dose at 10 weeks and 3rd dose at 14 weeks
OPV	Poliomyelitis	Along with DPT
Measles	Measles	9 months of age

2. Other Options:

Nepal Paediatric Society recommends the following schedule for optional vaccinations to be given as essential vaccines based on the evidence of burden of the disease in the country and proven cost-benefit ratios around the world. These vaccinations are not given freely by the His Majesty's Government except in situations of epidemics. Parents have to decide themselves on the cost of each vaccine and their affordability.

B. NEPAS Recommendation for Optional vaccines

The following vaccines are categorized as optional vaccines by NEPAS. NEPAS recommends that the following vaccines should be available as an OPTIONAL VACCINES to those infants and children whose parents wish to immunize their children.

Table III

Name of vaccines	Prevents against	Time of vaccination	Booster dose
Hib	Haemophilus influenzae	1st dose at 6 weeks after birth, 2nd dose at 10 weeks after birth and 3rd dose at 14 weeks (as per DPT schedule)	18 months
Varicella	Chicken pox	One year	
Hepatitis A	Hepatitis A	One year	18 months
Meningococcal AC	Meningococcal meningitis	Two years	Every three year
Typhoid (Vi antigen)	Typhoid	Two years	Every three year
DPT*-Polio			18 months and 5 years

* NEPAS recommends that booster be given at 18 months and Td-Polio at 5 years.

Table II

A. NEPAS Recommendation as Essential vaccines along with EPI

Name of Vaccines	Prevents against	Time of vaccination
Hepatitis B ¹	Hepatitis B	First two doses to be given along with the first two doses of DPT and third dose to be given along with measles (6 weeks, 10 weeks and 9 months)
MMR ²	Measles, Mumps and Rubella	First dose at 18 months and booster during tetanus booster
Japanese Encephalitis ³	Japanese encephalitis	First dose at the age of 1 year.

¹NEPAS has learned that Hepatitis B vaccine will be gradually incorporated into the national immunization program. It will be given as DPT in three doses schedule. The first dose is recommended at 6 weeks, second dose at 10 weeks and third dose at 9 months. The first two doses to be given with DPT-Polio and third dose along with measles. (It has now been included as of July 2006 separately and as a combination quadrivalent vaccine now.)

²NEPAS recommends MMR vaccine to be listed as essential vaccines. The first dose should be given at 18 months and second dose to all adolescents along with tetanus booster which is being considered at school age.

³NEPAS recommends Japanese B Encephalitis to be listed as essential vaccines for endemic areas of Tarai region. It is given on 0,7 and 30 days.

TableIV

C. NEPAS Summary of Vaccination Schedule for Children (essential and optional)

Age Vaccines	Birth	6 Weeks	10 Weeks	14 Weeks	9 Months	12 Months	18 Months	24 Months	5 Years	11-12 Years
BCG	*									
DPT and Polio		*	*	*		*b	*b	*bTd		
Measles					*					
MMR							*			*b
<i>Hepatitis B</i>		*	*		*					
<i>Hib</i>		*	*	*			*b			
<i>Hepatitis A</i>						*		*b		
<i>Varicella</i>						*				
<i>Typhoid</i>								*		
<i>MeningococcalAC</i>								*		
<i>Japanese encephalitis</i>						*				

Essential Vaccines *Optional Vaccines* b booster

- Hepatitis B vaccine (Hep B).** If possible all infants should receive the first dose of hepatitis B vaccine soon after birth or before hospital discharge; The second dose should be given at least 4 weeks after the first dose. The third dose should be given at least 6 months after the first dose.

However, the first dose can be given at 6 weeks along with DPT, second dose at 10 weeks along with second dose of DPT and third dose could be given at 9 months along with measles vaccination.

- Tetanus and diphtheria toxoids (Td).** It may be administered at the age of 5 years.
- Haemophilus influenzae* type b (Hib) conjugate vaccine.** If not given as mentioned as in the schedule during first year, only two doses are required at the interval of two months if given after one year.
- Measles, mumps, and rubella vaccine (MMR).** The second dose of MMR is recommended routinely at age 4-6 years but may be administered during any visit,

provided at least 4 weeks have elapsed since the first dose and that both doses are administered beginning at or after age 12 months. Those who have not previously received the second dose should complete the schedule by the 11-12 year old visit.

- Typhoid Vaccine (Vi antigen):** First dose age 2 years and booster doses at every 3 years.
- Japanese Encephalitis Vaccine.** This vaccine can be used for children residing and frequently visiting endemic Tarai region. It is given at one year or any time after one year on 0,7 and 30 days.
- Meningococcal AC vaccine.** The first dose is given at 2 years and booster doses are given every three years.

Prepared by Nepal Paediatric Society based on the NEPAS Update on Childhood Immunization held at Park Village Resort Hotel, Budha Nilkantha on Ashad 1st 2059 (15th June, 2002).

Always Follow the National Immunization Schedule