 **IAP Recommended immunization schedule for children aged 0-6 years (with range), 2012**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  **Age ►****Vaccine** ▼ | **Birth** | **6 wk** | **10 wk** | **14 wk** | **18 wk** | **6 mo** | **9 mo** | **12 mo** | **15 mo** | **18 mo** | **2-3 Yr** | **4-6 Yr** |
| **BCG** | **BCG** |  |  |
| **Hep B** | **Hep B1** | **Hep B2** |  |  | **Hep B3** |  |  |
| **Polio\***  | **OPV0** | **IPV1** | **IPV2** | **IPV3** | **OPV1** | **OPV2** | **IPV B1** |  | **OPV3** |
| **DTP** |  | **DTP 1** | **DTP 2** | **DTP 3** |  |  |  |  | **DTP B1** |  | **DTP B2** |
| **Hib** |  | **Hib 1** | **Hib 2** | **Hib 3** |  |  |  | **Hib-booster** |  |  |
| **Pneumococcal**  |  | **PCV 1** | **PCV 2** | **PCV 3** |  |  |  | **PCV -booster** | **PPSV** |
| **Rotavirus\*\*** |  | **RV 1** | **RV 2** | **RV\* 3** |  |  |  |  |  |  |  |  |
| **Measles** |  |  |  |  |  |  | **Measles** |  |  |  |  |
| **MMR** |  |  |  |  |  |  |  | **MMR 1** |  | **MMR 2** |
| **Varicella** |  |  |  |  |  |  |  |  | **Varicella 1** |  | **Varicella 2** |
| **Hep A** |  |  |  |  |  |  |  | **Hep A 1** | **Hep A 2** |  |
| **Typhoid** |  |  |  |  |  |  |  |  |  |  | **Typhoid** |
| **Influenza** |  |  |  |  |  | **Influenza (yearly)** |
| **Meningococcal** |  |  |  |  |  |  |  |  |  |  | **Meningococcal** |
| **Cholera** |  |  |  |  |  |  |  | **Cholera 1 & 2** |
| **JE** |  |  |  |  |  |  | **JE**  |

 **Range of recommended ages for all children Range of recommended ages for certain high-risk groups**

(This schedule includes recommendations in effect as of April 2012. Any dose not administered at the recommended age should be administered at a subsequent visit, when indicated and feasible. The use of a combination vaccine generally is preferred over separate injections of its equivalent component vaccines).

**1-BCG Vaccine:**

* Should be given at birth or at first contact
* Catch up may be given up to 5 years

**2- Hepatitis B (HepB) vaccine**

* Minimum age: birth
* Administer monovalent HepB vaccine to all newborns before hospital discharge.
* Monovalent HepB vaccine should be used for doses administered before age 6 weeks.
* Administration of a total of 4 doses of HepB vaccine is permissible when a combination vaccine containing HepB is administered after the birth dose.
* Infants who did not receive a birth dose should receive 3 doses of a HepB containing vaccine starting as soon as feasible.
* The ideal minimum interval between dose 1 and dose 2 is 4 weeks, and between dose 2 and 3 is 8 weeks.
* Ideally, the final (third or fourth) dose in the HepB vaccine series should be administered no earlier than age 24 weeks and at least 16 weeks after the first dose.
* Hep B vaccine may also be given in any of the following schedules: Birth, 1, & 6 mo, Birth, 6 and 14 weeks; 6, 10 and 14 weeks; Birth, 6 weeks,10 weeks, 14 weeks, etc.

**3-Poliovirus vaccines\*.**

* OPV in place of IPV If IPV is unaffordable/unavailable, minimum 3 doses
* Additional doses of OPV on all SIAs
* IPV: Minimum age: 6 weeks
* IPV: 2 instead of 3 doses can be also used if primary series started at 8 weeks and the interval between the doses is kept 8 weeks
* IPV catch-up schedule: 2 doses at 2 months apart followed by a booster after 6 months

**4- Diphtheria and tetanus toxoids and pertussis (DTP) vaccine.**

* Minimum age: 6 weeks
* The first booster (4thth dose) may be administered as early as age 12 months, provided at least 6 months have elapsed since the third dose.
* DTwP/DTaP/Tdap/Td: Catch up below 7 years: DTwP/DTaP at 0, 1 and 6 months;
* Catch up above 7 years: Tdap, Td, Td at 0, 1 and 6 months.

**5.** ***Haemophilus influenzae* type b (Hib) conjugate vaccine**

* Minimum age: 6 weeks
* Catch up in 6-12 months; 2 doses 1 month apart and 1 booster; 12-15 months: 1 primary and 1 booster; above 15 months single dose.

**6. Pneumococcal vaccines**

* Minimum age: 6 weeks for pneumococcal conjugate vaccine [PCV]; 2 years for pneumococcal polysaccharide vaccine [PPSV]
* Administer 1 dose of PCV to all healthy children aged 24 through 59 months who are not completely vaccinated for their age.
* For children who have received an age-appropriate series of 7-valent PCV (PCV7), a single supplemental dose of 13-valent PCV (PCV13) is recommended for:
	+ All children aged 14 through 59 months
	+ Children aged 60 through 71 months with underlying medical conditions.
* Administer PPSV at least 8 weeks after last dose of PCV to children aged 2 years or older with certain underlying medical conditions (certain high-risk groups)
* PCV: Catch up in 6-12 months: 2 doses 1 month apart and 1 booster; 12-23 months: 2 doses 2 months apart; 24 mo & above: single dose
* PPSV: Revaccination only once after 3-5 years only in certain high risk patients.

**7. Rotavirus (RV) vaccines\*\***

* Minimum age: 6 weeks for both RV-1 [Rotarix] and RV-5 [Rota Teq])
* Only two doses of RV-1 are recommended at present
* The maximum age for the first dose in the series is 14 weeks, 6 days; and 8 months, 0 days for the final dose in the series.
* Vaccination should not be initiated for infants aged 15 weeks, 0 days or older.

**8. Measles.**

* Minimum age: At completed months/270 completed days;
* Catch up vaccination beyond 12 months should be MMR
* Measles vaccine can be administered to infants aged 6 through 11 months during outbreaks. These children should be revaccinated with 2 doses of measles containing vaccines, the first at ages 12 through 15 months and at least 4 weeks after the previous dose, and the second at ages 4 through 6 years

9. **Measles, mumps, and rubella (MMR) vaccine.**

* Minimum age: 12 months
* The second dose may be administered before age 4 years, provided at least 4 weeks have elapsed since the first dose.

**10. Varicella vaccine.**

* Minimum age: 12 months
* The risk of breakthrough varicella is lower if given 15 months onwards.
* The second dose may be administered before age 4 years, provided at least 3 months have elapsed since the first dose.
* For children aged 12 months through 12 years, the recommended minimum interval between doses is 3 months. However, if the second dose was administered at least 4 weeks after the first dose, it can be accepted as valid.

11. **Hepatitis A (HepA) vaccine.**

* Minimum age: 12 months
* Two doses of both killed and live HepA vaccines.
* Administer the second (final) dose 6 to18 months after the first.

**12. Typhoid vaccine.**

* Only Vi-PS (polysaccharide) vaccine is recommended
* Minimum age: 2 years; Revaccination every 3 years
* Vi-PS conjugate vaccine: data not sufficient to recommend for routine use of currently available vaccine

**13. Influenza vaccine.**

* Minimum age: 6 months for trivalent inactivated influenza vaccine
* First time vaccination: 6 months to below 9 years: two doses 1 month apart; 9 years and above single dose; Annual revaccination with single dose.
* For children aged 6 months to below 9 years: For the 2012 season, administer 2 doses (separated by at least 4 weeks) to those who did not receive at least 1 dose of the 2010–11 vaccine. Those who received at least 1 dose of the 2010–11 vaccine require 1 dose for the 2011–12 season
* Best time to vaccinate: as soon as the new vaccine is released and available in the market & just before the onset of rainy season;

**14. Meningococcal vaccine.**

* Only meningococcal polysaccharide vaccine (MPSV) is available
* Minimum age: 2 years
* Revaccination only once after 3 years in those at continued high risk

**15. Cholera Vaccine.**

* Minimum age: one year (killed whole cell vibrio cholera (Shanchol)
* Two doses 2 weeks apart for >1 year old

**16. Japanese encephalitis (JE) vaccine.**

* Recommended in endemic areas only
* Live attenuated, cell culture derived SA-14-14-2 vaccine is preferred
* Minimum age: 8 months; can be co-administered with measles vaccine at 9 months; single dose
* Catch up vaccination: all susceptible children up to 15 yrs should be administered during disease outbreak/ahead of anticipated outbreak in campaigns