**IAP Immunization Schedule 2018-19(Tabular form)**

**IAP recommended vaccines for routine use**

| **Age(completed weeks/months/years)** | **Vaccines** | **Comments** |
| --- | --- | --- |
| **Birth** | **BCG OPV0Hepatitis-B 1** | * **Administer these vaccines to all newborns within 7 days. Hepatitis B vaccine preferably within 24 hours**

**.** |
| **6 weeks** | **DTwP 1/ DTaP1IPV1\*Hepatitis-B2Hib1Rota1PCV 1** | **DTP:*** **Both DTwP and DTaP or their combinations can be used in primary series.**
* **Immunogenicity and longevity of immune response is better with DTwP.**
* **DTaP/DTwP combination vaccines may be offered as an alternative in view of non-availability of standalone IPV preparations in the private sector. DTaP combination vaccines may be offered in view of parental anxiety of increased reactogenicity with DTwP.**

**Polio :*** **No child should leave the facility without polio immunization (IPV\* or OPV).**
* **Continue birth dose OPV, and OPV on SIAs**
* **Ideally IPV should replace OPV completely as early as possible.**
* **3 doses of IM IPV in primary series is the best option.**
* **Two doses of IM IPV instead of 3 for primary series if started at 8 weeks, with an interval of at least 8 weeks between 2 doses.**
* **In case IPV is not available or feasible, the child should be offered bOPV (3 doses). In such cases, two fractional doses of IPV at a Government facility or at least one dose of a IM IPV either standalone or as a combination at least at 14 weeks of age.**

**Rotavirus** * **2 doses of RV1 or 3 doses of RV5 & RV 116E and BRV-PV**
* **RV1 can be given at 6 & 10 weeks .**

**Pneumococcal conjugate vaccines (PCVs)*** **Minimum age: 6 weeks**
* **Both PCV10 and PCV13 are licensed for children from 6 weeks to 5 years of age (although the exact labeling details may differ by country).**
* **Additionally, PCV13 is licensed for the prevention of pneumococcal diseases in adults >50 years of age**
* **Primary schedule (For both PCV10 and PCV13): 3 primary doses at 6, 10, and 14 weeks with a booster at age 12 through 15 months.**
 |
| **10 weeks** | **DTwP 2/DTaP2****HepatitisB3IPV2Hib2Rotavirus2PCV 2** | **:*** **Only 2 doses of RV1 are recommended.**
* **If RV1 is chosen, the 2nd dose should be given at 10 weeks**
 |
| **14 weeks** | **DTwP 3/DTaP3****HepatitisB4\*\*IPV3Hib3Rotavirus3PCV 3** | * **If any dose in series was RV-5 or RV-116E or BRV -PV a total of 3 doses of RV vaccine should be administered.**
* **\*\*Fourth dose of Hepatitis B permissible for combination vaccines only**
 |
| **6 months** | **Influenza vaccine****(FLU Vaccine)** | **Influenza vaccine*** **IIV is recommended for routine immunization of children 6 months to 59 months of age.**
* **Children 6 months to 59 months are grouped as ‘high risk’ and should be offered routine Influenza vaccine.**
* **Beyond 5 years age only high risk group as listed below**
* **Both TIIV and QIIV are licensed in India.**
* **QIIV is preferred if available**
* ***Minimum age:* 6 months for trivalent/quadrivalent inactivated influenza vaccine (IIV).**
* **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,2 to 4 weeks before flu season..**
 |
| **6 months** **onwards** **9 Months** | **Typhoid conjugate vaccine(TCV)****MMR-1/MR** | **Single dose of any of the licensed TCV can be administered.****Can be administered with MMR vaccine if started at 9 months.****Sufficient data on safety and immunogenicity available for 25mcg TCV.****Currently available data is insufficient for making any recommendation for 5 mcg TCV.****MMR/MR*** **Standalone measles will no more be available.**
* **Measles-containing vaccine (MMR/MR)ideally should not be administered after completing 9 months of age.**
* **The 2nd dose must follow in 2nd year of life**
* **MR is not available in private sector as on date. If available, it should be offered instead of MMR.**
* **Additional dose during MR campaign for children 9 months to 15 years, irrespective of previous vaccination status.**
 |
|  |  | **.** |
| **12 months** | **Hep-A 1****Japanese encephalitis vaccine(JE)****[for endemic areas]** | **Hepatitis-A:*** **Single dose for live attenuated H2-strain Hep-A vaccine**
* **Two doses for all inactivated Hep-A vaccines are recommended**

**Japanese encephalitis vaccine(JE)*** **Any of the licensed JE vaccine can be administered.**
* **Two doses to be given 1 month apart.**
* **Live attenuated SA-14-14-2 is not available in private market**
 |
| **15 months** | **MMR2Varicella1PCV booster** | **MMR:*** **The 2nd dose must follow in 2nd year of life**
* **However, it can be given at any time 4-8 weeks after the 1st dose**

**Varicella:** * **The risk of breakthrough varicella is lower if given 15 months onwards**
* **MMRV as a combination is more reactogenic at 15-18 months**
 |
| **16 to 18 Months** | **DTwP B1/DTaP B1IPVB1\*\*\*Hib B1** | * **The first booster (4th dose) may be administered as early as age 12 months, provided at least 6 months after the third dose**
* **Both DTwP and DTaP as combination vaccine can be offered.**
* **No child should leave the facility without booster dose of IPV (standalone or combination) or bOPV vaccination.**
 |
| **18 months** | **Hep-A 2** | **Hepatitis A:*** **2nd dose for inactivated vaccines only**
 |
| **4 to 6 years** | **DTwP B2/DTaP B2****MMRV or MMR3 + Varicella 2** | * **Tdap is not recommended here.**

**Varicella: : A total of 2 doses of varicella vaccine should be administered*** **The second dose of varicella vaccine should be given at 4 – 6 years of age or at 3 months after the first dose.**
* **MMRV can be used without increased risk of adverse reactions at this age.**
* **MMR 3rd dose is recommended at 4-6 years of age.**

**.****:** |
| **9 to 12 years** | **Tdap/Td****HPV** | **Tdap: Recommended age is 10 years*** **Tdap is preferred to Td followed by Td every 10 years**
* **Minimum age for Tdap is 7 years**

**HPV:*** **Only 2 doses of either of the two HPV vaccines for girls aged 9-14 years;**
* **For girls 15 years and older, and immunocompromised individuals 3 doses are recommended**
* **For two-dose schedule, the minimum interval between doses should be 6 months.**
* **For 3 dose schedule, the doses can be administered at 0, 1 or 2 (depending on brand) and 6 months**
 |

**\*In case IPV is not available or feasible, the child should be offered bOPV (3 doses). In such cases, two fractional doses of IPV at a Government facility**

**\*\*Fourth dose of Hepatitis B permissible for combination vaccines only**

**\*\*\*b-OPV, if IPV booster (standalone or combination) not feasible**

**II. IAP recommended Vaccines under special circumstances**

* **Influenza Vaccine\***
* **Meningococcal Vaccine**
* **Japanese Encephalitis Vaccine**
* **Cholera Vaccine**
* **Rabies Vaccine**
* **Yellow Fever Vaccine**
* **Pneumococcal Polysaccharide vaccine (PPSV 23)**

**Rabies vaccine**

* **Four dose schedule of anti rabies vaccine is recommended for post exposure prophylaxis**
* **Rabies monoclonal antibody is as effective as Rabies Immunoglobulin, and is a cost effective option.**

**Japanese Encephalitis Vaccine**

* **Only for individuals living in endemic areas**
* **For travelers to JE endemic areas provided their expected stay is for a minimum period of 4 weeks**
* **Any of the licensed JE vaccine can be administered.**
* **Live attenuated SA-14-14-2 is not available in private market**

**Meningococcal vaccines- Any of the licensed vaccine can be administered.**

* + **9 months through 23 months: 2 doses at-least 3 months apart**
	+ **2 years through 55 years: Single dose**

**Cholera vaccine**

* **Minimum age: One year [killed whole cell *Vibrio cholerae***
* **Not recommended for routine use in healthy individuals; recommended only for the vaccination of persons residing in high endemic areas and travelling to areas where risk of transmission is very high.**
* **Two doses 2weeks apart for>1year old.**

**Yellow fever vaccine Refer to topic on travelers” vaccination**

**\*High-risk category of children:**

* **Congenital or acquired immunodeficiency (including HIV infection),**
* **Chronic cardiac, pulmonary (including asthma if treated with prolonged high-dose oral corticosteroids), hematologic, renal (including nephrotic syndrome), liver disease and diabetes mellitus**
* **Children on long term steroids, salicylates, immunosuppressive or radiation therapy**
* **Diabetes mellitus, Cerebrospinal fluid leak, Cochlear implant, Malignancies,**
* **Children with functional/ anatomic asplenia/ hyposplenia**
* **During disease outbreaks**
* **Laboratory personnel and healthcare workers**
* **Travelers**
* **Children having pets in home**
* **Children perceived with higher threat of being bitten by dogs such as hostellers, risk of stray dog menace while going outdoor.**
* **Influenza vaccination annually is recommended yearly for high risk children from 5 yrs os age onwards.**