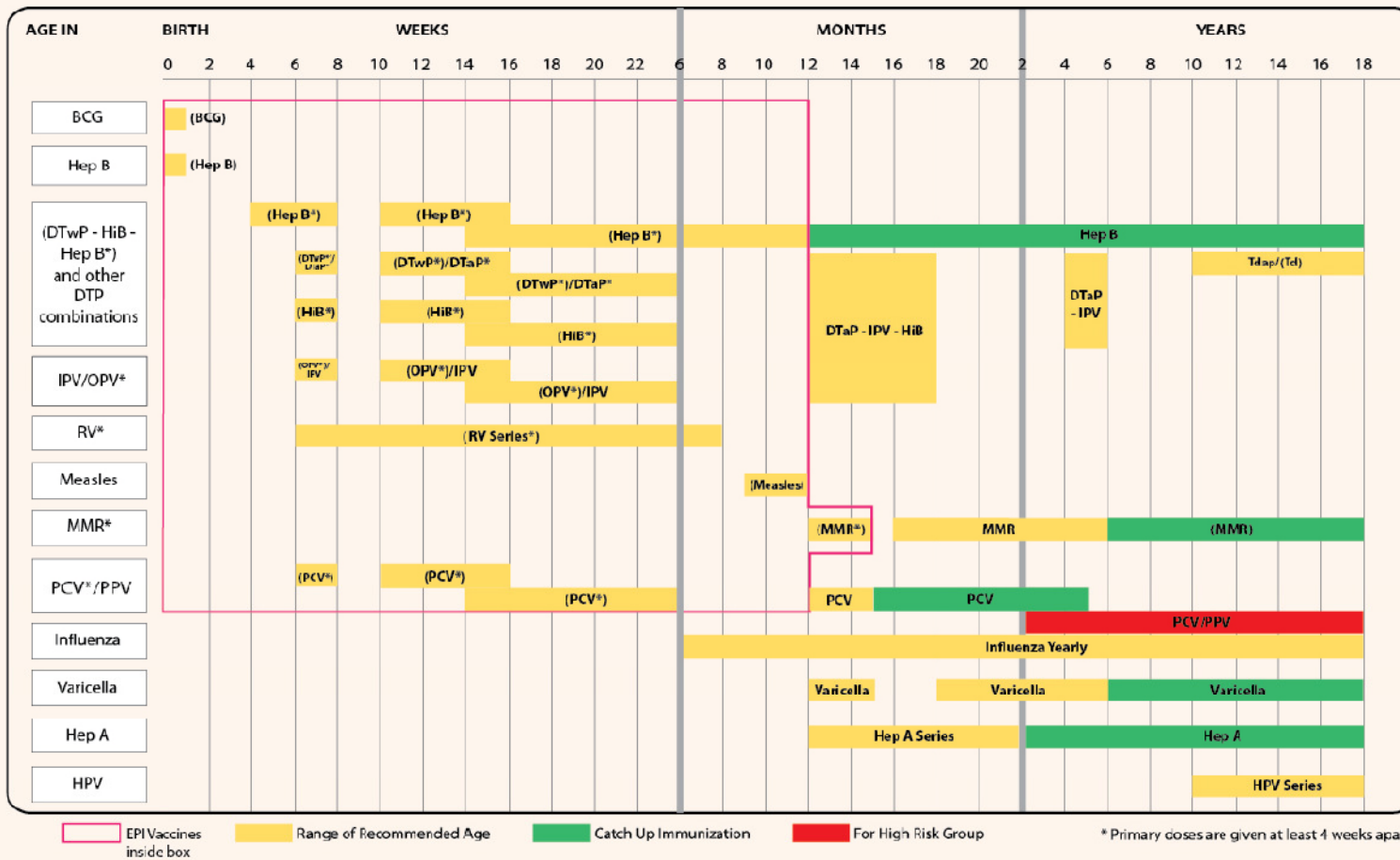




Childhood Immunization Schedule 2014



DISCLAIMER:

The Childhood Immunization Schedule presents recommendations for immunization for children and adolescents based on the knowledge, experience and premises current at the time of publication. The schedule represents a consensus with which physicians may at times disagree. No claim is made for infallibility, and the PPS, PIDSP and PFV acknowledge that individual circumstances may warrant a decision differing from the recommendations given here. The recommendations are not absolute. Physicians must regularly update their knowledge about specific vaccines and their use because information about safety and efficacy of vaccines and recommendations relative to their administration continue to develop after a vaccine is licensed.

PHILIPPINE EPI VACCINES:

Vaccines in the pink box, enclosed in parentheses, are vaccines given in the Philippine Expanded Program of Immunization (PEPI) of the Department of Health. Vaccines in the PEPI include:

- BCG
- DTaP-HiB-HepB
- OPV
- Measles
- MMR
- Rotavirus vaccine
- PCV
- Td

OTHER RECOMMENDED VACCINES:

Other Recommended Vaccines are vaccines outside the pink box. These vaccines are not part of the Philippine EPI but because of merit are advocated by the Philippine Pediatric Society (PPS), Pediatric Infectious Disease Society of the Philippines (PIDSP), and the Philippine Foundation for Vaccination (PFV). Other Recommended vaccines include:

- DTaP
- IPV
- Tdap/Td
- MMRV
- Varicella
- Hepatitis A
- Influenza
- Human Papillomavirus Vaccine (HPV)

Annotations:

BCG
Given intradermally (ID)
BCG should be given at the earliest possible age after birth preferably within the first 2 months of life.
For healthy infants and children > 2 months who are not given BCG at birth, PPD prior to BCG vaccination is not necessary. However, PPD is recommended prior to BCG vaccination if any of the following are present:
- suspected congenital TB
- history of close contact to known or suspected infectious cases of TB
- clinical findings suggestive of TB and/or chest x-ray suggestive of TB
In the presence of any of these conditions, an induration of > 5 mm is considered positive. The dose of BCG is 0.05 ml for children < 12 months of age and 0.1 ml for children > 12 months of age.

DIPHTHERIA AND TETANUS TOXIDS AND ACCELLULAR/WHOLE CELL PERTUSSIS VACCINE (DTaP/DTwP)
The following DTP combination vaccines are available in the Philippines:
DTwP-Hib
DTaP-IPV
DTwP-HepB
DTaP-IPV-Hib
DTwP-HepB-Hib
DTaP-IPV-Hib-HepB

DTP
Given intramuscularly (IM)
Given at a minimum age of 6 weeks with a minimum interval of 4 weeks. The 4th dose may be given as early as 12 months of age provided there is a minimum interval of 6 months from the third dose. The 5th dose may not be given if the 4th dose was administered at age 4 years or older. The pertussis component may either be an acellular or whole cell formulation.

HEPATITIS B VACCINE
Given intramuscularly (IM)
The 1st dose should be given within the first 12 hours of life, and may be counted as part of the 3-dose primary series. Subsequent doses are given at least 4 weeks apart, with the 3rd dose preferably given not earlier than 24 weeks of age.

Another dose of hepatitis B is needed for the following (to be administered not earlier than 24 weeks of age):
- Preterm < 2 kg, whose 1st dose was received at birth
- Infants for whom the 3rd dose is given at age < 24 weeks
Preterm infants born to HBsAg (-) mothers who are medically stable may be given the 1st dose of HBV at 30 days of chronological age regardless of weight, and this can be counted as part of the 3-dose primary series.
If mother is HBsAg (+), administer HBV and HBIG (0.5 ml) within 12 hours of life. If HBsAg status is unknown, administer HBV within 12 hours of birth and determine mother's HBsAg as soon as possible. If HBsAg (+) administer HBIG no later than 7 days of age.
In the EPI schedule, Hepatitis B is given as monovalent hepatitis B vaccine at birth then subsequent doses are given at 6, 10, 14 weeks of age as combination vaccines containing DTwP-Hep B-Hib.

HAEMOPHILUS INFLUENZAE TYPE B CONJUGATE VACCINE (HiB)
Given intramuscularly (IM)
Given at a minimum age of 6 weeks with a minimum interval of 4 weeks. If the first dose was given between 7-11 months of age, the 2nd dose should be given at least 4 weeks later, and the 3rd dose at least 8 weeks from the 2nd dose.
A booster dose should be given between 12-15 months of age, with an interval of 6 months from the 3rd dose.
One dose of the HiB vaccine should be considered for unimmunized children aged 5 years or older who have sickle cell disease, leukemia, HIV infection or who had splenectomy.

MEASLES VACCINE
Given subcutaneously (SC) at the age of 9 months.
May be given as early as 6 months of age in cases of cutaneous as declared by public health officials.

MEASLES, MUMPS, RUBELLA (MMR)
Given subcutaneously (SC)
The minimum age for MMR is 12 months.
Two doses of MMR are recommended. The second dose is administered at ages 4-6 years but may be administered at an earlier age provided the interval between the first and second dose is at least 4 weeks.
Children below 12 months of age given any measles containing vaccine (measles, MR, MMR) should be given 2 additional doses of MMR. The 1st dose is given at age 12-15 months and should be separated by at least 4 weeks from measles containing vaccine. The second dose is administered at age 4-6 years, but may be given at an earlier age provided the interval between the 1st and 2nd dose is at least 4 weeks.
Children 12 months or older given one dose of any measles containing vaccine (measles, MR/MMR) should be given a 2nd dose of MMR vaccine separated by at least 4 weeks from the 1st measles containing vaccine.
In the Philippine EPI, a second dose of MMR is given to high school students (Grade 7-10) enrolled in public schools in selected cities and provinces.

POLIOVIRUS VACCINE (OPV/IPV)
OPV given per os (PO)
Given at a minimum age of 6 weeks with a minimum interval of 4 weeks. In the Philippine EPI, OPV is administered together with DTwP-Hep B-HiB vaccines at 6, 10 and 14 weeks of age.
IPV given intramuscularly (IM)
Given at a minimum age of 6 weeks with a minimum interval of 4 weeks. The final dose in the series should be on or after the 4th birthday and at least 6 months from the previous dose. If 4 or more doses have been given prior to age 4 years, an additional dose should be given at age 4 through 6 years.

TETANUS AND DIPHTHERIA TOXOID (Td)/TETANUS AND DIPHTHERIA TOXOID AND ACCELLULAR PERTUSSIS VACCINE (Tdap)
Given intramuscularly (IM)
In children who are fully immunized*, Td booster doses should be given every 10 years. A single dose of Tdap can be given in place of the due Td dose, and can be administered regardless of the interval since the last tetanus and diphtheria toxoid containing vaccine.
Children aged 7 through 18 years who are not fully immunized with DTP vaccine should receive Tdap as the 1st dose in the catch-up series. If additional doses are needed use Td vaccine.
Children and adolescents aged 7 through 18 years who have never been immunized with DTP vaccine should receive the 3-dose series of tetanus and diphtheria containing vaccines using the 0-1-6 months schedule. A single dose of Tdap is given, preferably as the 1st dose. The remaining doses can be given as Td.
**Fully immunized is defined as 5 doses of DTwP or 4 doses of DTwP if the 4th dose was administered on or after the 4th birthday.*
In the Philippine EPI, a single dose of Td is given to high school students (Grades 7-10) enrolled in public schools in selected cities and provinces. For the fully immunized pregnant adolescent, administer one dose of Tdap vaccine between the 3rd or late 2nd trimester of pregnancy (after 20 weeks gestation).
Unimmunized pregnant adolescents should receive the 3-dose series of tetanus and diphtheria containing vaccines (Td/Tdap) following a 0-1-6 month schedule. Tdap should replace one dose of Td given preferably during the 3rd or late 2nd trimester of pregnancy (after 20 weeks gestation).

HEPATITIS A VACCINE
Given intramuscularly (IM)
Hepatitis A vaccine is recommended for all children aged > 12 months. A second dose of the vaccine is given at least 6 months after the first dose.

ROTAVIRUS VACCINE (RV)
Given per os (PO)
The minimum interval between doses is 4 weeks.
The monovalent human rotavirus vaccine (RV1) is given as a two-dose series and the pentavalent human bovine rotavirus vaccine (RV5) is given as a 3-dose series.
The first dose should be administered beginning at 5 weeks of age and the last dose should be administered not later than 32 weeks of age.
If RV1 is administered for the first and second dose, a third dose is not recommended.

VARICELLA VACCINE
Given subcutaneously (SC)
Two doses of varicella vaccine are recommended.
The first dose of the vaccine is administered from age 12-15 months. The second dose of the vaccine is administered at 4-6 years or at an earlier age provided the interval between the first and the second dose is at least 3 months.
A second dose of the vaccine is recommended for children, adolescents and adults who previously received only one dose of the vaccine. For children below 13 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 considered as valid.
All individuals aged > 13 years and without immunity should receive 2 doses of varicella vaccine given at least 4 weeks apart.

MEASLES, MUMPS, RUBELLA, VARICELLA (MMRV)
Given subcutaneously (SC)
Combination MMRV may be given as an alternative to separately administered MMR and varicella vaccine for healthy children 12 months to 12 years of age.
The minimum interval between the first and second dose is 3 months.

HUMAN PAPILLOMAVIRUS VACCINE (HPV)
Given intramuscularly (IM)
Primary vaccination consists of a 3-dose series. The minimum age for HPV vaccination is 9 years. The recommended schedule is as follows:
- Bivalent HPV at 0, 1 and 6 months
- Quadrivalent HPV at 0, 2 and 6 mos
The minimum interval between the 1st and 2nd dose is at least 1 month and the minimum interval between the 2nd and 3rd dose is at least 3 months. The 3rd dose should be given at least 5 months after the first dose.
**The quadrivalent HPV can be given to males: 10-18 years of age for the prevention of oropharyngeal warts.*

INFLUENZA VACCINE
Given intramuscularly (IM) or subcutaneously (SC)
All children from 6 months to eighteen years should receive influenza vaccine. Children 5 months to 3 years receiving influenza vaccine for the first time should receive 2 doses of the vaccine separated by at least 4 weeks. If only one dose was administered during the previous influenza season, administer 2 doses of the vaccine then one dose yearly thereafter.
Children aged 9 to 18 years should receive one dose of vaccine yearly.
Annual vaccination should be given preferably between February to June, but may be given throughout the year.

PNEUMOCOCCAL VACCINES (PCV/PPV)
Given intramuscularly (IM)
The minimum age for pneumococcal conjugate vaccine (PCV) is 6 weeks. Primary vaccination of PCV consists of 3 doses with an interval of at least 4 weeks between doses, plus a booster at 6 months after the 3rd dose. Healthy children 2 to 5 years old who have no previous PCV vaccination may be given one dose of PCV13 or 2 doses of PCV10 at least 8 weeks apart. Routine use of PCV is not recommended for healthy children aged ≥ 5 years.
For high risk children ≥ 2 years of age, PPV is recommended after completing PCV series (refer to Vaccines for Special Groups).
For healthy children, no additional doses of PPV are needed if PCV series is completed.

VACCINES FOR SPECIAL GROUPS:
These are the vaccines which are not part of the Philippine EPI or Other Recommended Vaccines but available data support their use in certain conditions or in selected populations. Vaccines for Special Groups include:
- Meningococcal Vaccines
- Rabies Vaccine
- Typhoid Vaccine
- Pneumococcal Vaccine (PCV/PPV)

MENTINGOCOCCAL VACCINE
Tetavalent meningococcal (ACYW-135) conjugate vaccine (MCV4) given intramuscularly (IM). Tetavalent meningococcal polysaccharide vaccine (MPSV4) given subcutaneously (SC).
Two doses of MCV4 given 2 months apart should be given to children aged 9 months and above at high risk for invasive disease (persistent complement component deficiencies, anatomic/functional asplenia, HIV, travelers to or residents of areas where meningococcal disease is hyperendemic or epidemic, or belonging to a defined risk group during a community or institutional meningococcal outbreak).
If MPSV4 is used for high risk individuals as the first dose, a second dose using MCV4 should be given 2 months later.
If the person remains at increased risk, an initial booster dose of MCV4 should be given 3 years after completing the primary series, with continued boosters at 5-year intervals after the initial booster dose.
Additional booster doses of polysaccharide vaccines are not recommended.

TYPHOID VACCINE
Given intramuscularly (IM)
Recommended for travellers to areas where there is risk of exposure to S. typhi and for outbreak situations as declared by public health officials.
A single dose may be given as early as 2 years of age with revaccination every 2 to 3 years if there is continued exposure to S. typhi.

RABIES VACCINE
The Anti-rabies Act of 2007 recommends routine rabies pre-exposure prophylaxis (PrEP) for children ages 5-14 years in areas where there is high incidence of rabies and animal bites (defined as more than twice the national average).
There are 2 recommended regimens for Pre-exposure Prophylaxis:
- Intramuscular regimen: PVRV 0.5 ml or PCECV 1 ml given on days 0, 7, 21 or 28.
- Intradermal regimen: PVRV or PCECV 0.1 ml given on days 0, 7, 21 or 28.

A repeat dose should be given if the vaccine is inadvertently given subcutaneously.
Rabies vaccine should never be given in the gluteal area since absorption is unpredictable.
Periodic booster doses in the absence of exposure are not recommended for the general population.
In the event of subsequent exposures, those who have completed 3 doses of pre-exposure prophylaxis, regardless of interval between re-exposure and last dose of the vaccine, will require only booster doses on day 0 and 3. Booster doses may be given IM (0.5 ml PVRV or 1 ml PCECV) or ID (0.1 ml PVRV or PCECV). There is no need to give rabies immune globulin.

PNEUMOCOCCAL VACCINES (PCV/PPV)
Given intramuscularly (IM)
For Children ≥ 2 years with the following underlying medical conditions such as but not limited to anatomic/functional asplenia, HIV infection or other immunocompromising condition, chronic lung, heart and renal diseases, cochlear implant, or cerebral spinal fluid leak.
- Children aged 2 to 71 months, give one dose of PCV13 if three doses of any PCV were given previously or give two doses of PCV13 at least 8 weeks apart if less than 3 doses of any PCV were previously given.
- Children aged 6 to 18 years with no previous doses of PCV, give a single dose of PCV13.
- Children 2-18 years old with the above conditions should receive PPV at least 8 weeks after PCV.
A second dose of PPV is recommended 5 years after the 1st dose of PPV only for those with anatomic / functional asplenia, congenital immunodeficiency, HIV infection, chronic renal failure or nephrotic syndrome, malignancy, solid organ transplantation, and other diseases associated with immunosuppressive drugs or radiation therapy. No more than 2 PPV doses should be given.