Immunization Schedule – (Updated - March 2015)

2 month: DTaP-IPV-HBV (Pediarix), HiB, Prevnar-13, Rotarix
4 month: Pediarix, HiB, Prevnar-13, Rotarix
6 month: Pediarix, HiB (unless Merck’s PRP-OMP version, then skip this dose), Prevnar 13
2-23m: Meningococcal [Menveo (2m – 24m)]
12 month: MMR\textsuperscript{1,4}, Varicella\textsuperscript{1,4}, Hep A
15 month: DTaP, Hib, Prevnar 13
18 month: catch-up\textsuperscript{5}
24 month: Hep A
2y-10y: Meningococcal (Menveo\textsuperscript{2} or Menactra\textsuperscript{2,6})
2y-11y: Pneumovax\textsuperscript{7} or Prevnar-13\textsuperscript{7}
4 year: MMR\textsuperscript{1,4}, Varicella\textsuperscript{1,4}, IPV, DTaP
5y+: Hib\textsuperscript{8}
7-10yrs: Tdap as 1st dose of catch-up dosing series is recommended
10 year: Tdap (Boostrix or Adacel) – if entering 6th grade
11 year: Tdap, Meningococcal (Menveo or Menactra)\textsuperscript{9}, HPV (Gardasil)\textsuperscript{10}

\textsuperscript{1}Live vaccines (MMR, Varivax, Rotarix, intranasal influenza, oral typhoid, and for yellow fever) are not given to those with suspected immunodeficiency unless cleared by a specialist. For actual guidelines, see \textit{MMWR} 60(2) p21, table 13 on page 48 (issued January 28, 2011). Generally postpone tuberculosis testing (PPD or IGRA) till 28 days after a live attenuated viral vaccine (p24).

\textsuperscript{2}Meningococcal vaccine is recommended in children who have anatomic or functional asplenia (including sickle cell disease), persistent complement component deficiencies (e.g., C5–C9, properdin, factor H, or factor D), children who are traveling to countries where meningococcal disease is hyperendemic or epidemic, and children who are in a defined risk group during a community or institutional meningococcal outbreak. Check individual vaccine guidelines [\textit{MMWR} 62(RR02):1-22, issued March 22, 2013 and \textit{MMWR} 63(24): 527-530, 2014]

\textsuperscript{3}Measles vaccination might suppress tuberculin reactivity temporarily. If tuberculin testing (tuberculin or IGRA) is performed after the day of the MMR vaccination, the testing should be postponed for >4 weeks. [\textit{MMWR} 60(2) p24 ]

\textsuperscript{4}Live-viral vaccines (excepting live oral vaccines like Rotarix or typhoid) are to be given on the same day otherwise a 28-day waiting period is required. [\textit{MMWR} 60(2) pp. 5,8-9,19, Table 3]

\textsuperscript{5}All brands of Hib conjugate, hepatitis B, hepatitis A, rotavirus, and quadrivalent meningococcal conjugate vaccines are interchangeable within their respective series [\textit{MMWR} 60(2), p10]

\textsuperscript{6}Menactra is recommended for functional/anatomic asplenia. Offer 2 doses spaced 2 months apart and given 4 weeks after completion of the Prevnar series; and Menactra should not be administered within 28 days of Tdap unless it is being given on the same day. [\textit{MMWR} 60(40): 1391(see table), and 60(2) table 3, page 38]

\textsuperscript{7}Pneumovax – dosed in patients with functional/anatomic asplenia, CHF or cyanotic heart disease, diabetes mellitus, CRF or nephrotic syndrome, cochlear implants, immunosuppressed or immunodeficient states; repeat dosing in 5 years in asplenia and immunocompromised patients – \textit{MMWR} 59(11):1-18, Tables 2, 12 (issued December 10, 2010). Prevnar-13 should be given to 6-18yo if not previously used with some of the high risk groups – [\textit{MMWR} 62(25):521-524, 2013].

\textsuperscript{8}Hib vaccine is recommended in an unvaccinated child or teen (or adult) with functional or anatomic asplenia, and also in an HIV infected child or teen (but not adult) – [\textit{MMWR} 63(1):8, issued Feb 28, 2014]

\textsuperscript{9}Meningococcal vaccine is recommended at ages 11 through 12 years with a booster dose at age 16 years. Patients who received their first dose at age 13 through 15 years should receive a booster dose at age 16 through 18 years. One dose is recommended at age 16 years or older (no booster)(give one dose to unvaccinated college freshman).

\textsuperscript{10}Gardasil is approved and recommended for boys as well as girls. The 2nd dose is given 1-2 months after the 1st dose, and the 3rd dose is given 24 weeks after the 1st dose, 12-16 weeks after the second dose. Catch up dosing is given at ages 13-21y. \textit{MMWR} 59(20):630-632 (5/28/10), \textit{MMWR} 60(50):1705-1708 (12/23/11), \textit{MMWR} 63(RRO5) Aug 29, 2014

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