3. Administer 1 supplemental dose of PCV13 if 4 doses of PCV7 or other age-appropriate complete PCV7 series was received previously.
4. The minimum interval between doses of PCV (PCV7 or PCV13) is 8 weeks.
5. For children with no history of PPV23 vaccination, administer PPV23 at least 8 weeks after the most recent dose of PCV13.
   • For children ages 6 through 18 months who have cerebrospinal fluid leak; coiled vein; sickle cell disease and other hemoglobinopathies; anatomic or functional asplenia; congenital or acquired immunodeficiencies; HIV infection; chronic renal failure; nephrotic syndrome; diseases associated with treatment with immunosuppressive drugs or radiation therapy, including malignant neoplasms, leukemias, lymphomas, and Hodgkin’s disease; generalized malignancy; solid organ transplantation; or multiple myeloma:
     1. If neither PCV13 nor PPV23 has been received previously, administer 1 dose of PCV13 now and 1 dose of PPV23 at least 8 weeks later.
     2. If PCV13 has been received previously but PPV23 has not, administer 1 dose of PPV23 at least 8 weeks after the most recent dose of PCV13.
     3. If PPV23 has been received but PCV13 has not, administer 1 dose of PCV13 at least 8 weeks after the most recent dose of PPV23.

6. For children ages 6 through 18 months who have had recent or current illnesses associated with increased risk of pneumococcal disease:
   • If the first dose of MenHibrix is given at or after age 12 months, a total of 2 doses have elapsed since the first dose. If the second dose was administered at least 4 weeks after the first dose, it can be accepted as valid.

7. Inactivated poliovirus vaccine (IPV). (Minimum age: 6 weeks)
   Routine vaccination:
   • Administer a 4-dose series of IPV at ages 2, 4, 6 through 18 months, and 4 through 6 years.
   The final dose in the series should be administered on or after the fourth birthday and at least 6 months after the previous dose.

7. Inactivated poliovirus vaccine (IPV). (Minimum age: 6 weeks)
   Routine vaccination:
   • Administer a 4-dose series of IPV at ages 2, 4, 6 through 18 months, and 4 through 6 years.
   The final dose in the series should be administered on or after the fourth birthday and at least 6 months after the previous dose.

8. Influenza vaccines. (Minimum age: 6 months for inactivated influenza vaccine [IIV]; 2 years for live, attenuated influenza vaccine [LAIV])
   Routine vaccination:
   • Administer influenza vaccine annually to all children beginning at age 6 months.
   For most healthy, non-pregnant persons ages 2 through 49 years, either LAIV or IIV may be used. However, LAIV should not be administered to some persons, including:
   1) persons who have experienced severe allergic reactions to LAIV, any of its components, or to a previous dose of any other influenza vaccine; 2) children ages 2 through 17 years receiving aspirin or aspirin-containing products; 3) persons who are allergic to eggs; 4) persons with severe neurologic or neurodevelopmental disorders; 5) persons with chronic liver disease; and 6) persons who have had a history of Guillain-Barré syndrome.

9. Measles, mumps, and rubella (MMR) vaccine. (Minimum age: 12 months for routine vaccination)
   Routine vaccination:
   • Administer 1 dose of MMR vaccine to infants ages 6 through 11 months before departure from the United States for international travel. These children should be revaccinated with 2 doses of MMR vaccine, the first at ages 12 through 15 months (12 months if the child remains in an area where disease risk is high) and the second dose at least 4 weeks later.
   • Administer 2 doses of MMR vaccine to children ages 12 months and older before departure from the United States for international travel. The first dose should be administered on or after age 12 months and the second dose at least 4 weeks later.

10. Varicella (VAR) vaccine. (Minimum age: 12 months)
   Routine vaccination:
   • Administer a 2-dose series of VAR vaccine at age 12 through 15 months and 4 through 6 years. The second dose may be administered before age 4 years, provided that at least 3 months have elapsed since the first dose. 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)
   Routine vaccination:
   • Administer 2 doses of HepA vaccine at ages 12 through 23 months; separate the 2 doses by 4 to 8 weeks.
   • Children who have received 1 dose of HepA vaccine before age 24 months should receive a second dose 6 to 18 months after the first dose.
   • For any person age 2 years or older who has not already received the HepA vaccine series, 2 doses of HepA vaccine separated by 6 to 18 months may be administered if immunity against hepatitis A virus infection is desired.

12. Human papillomavirus (HPV) vaccines. (Minimum age: 9 years for HPV2 [Cervarix] and HPV4 [Gardasil])
   Routine vaccination:
   • Administer a 3-dose series of HPV vaccine on a schedule of 0, 1–2 and 6 months to all adolescents ages 11 through 12 years. Either HPV4 or HPV2 may be used for females, and only HPV4 may be used for males.
   • The vaccine series may be started at age 9 years.
   • Administer the second dose 1 to 2 months after the first dose (minimum interval of 4 weeks); administer the third dose 24 weeks after the first dose and 16 weeks after the second dose (minimum interval of 12 weeks).

13. Meningococcal conjugate vaccines. (Minimum age: 6 months for Hib-MenCY [MenHibrix]; 2 months for MenACWY-CRM [Menveo]; 5 months for MenACWY-D [Menactra])
   Routine vaccination:
   • Administer a single dose of Menactra or Menveo vaccine at age 11 through 12 years, with a booster dose at age 16 years.
   • Adolescents ages 11 through 18 years with human immunodeficiency virus (HIV) infection should receive a 2-dose primary series of Menactra or Menveo with at least 8 weeks between doses.
   • For children ages 2 through 18 years with high-risk conditions, see below.

Catch-up vaccination:
   • For children ages 2 through 18 years with high-risk conditions, see below.

Vaccination of persons with high-risk conditions and other persons at increased risk of disease:
   • Children with anatomic or functional asplenia (including sickle cell disease):
     1. Menveo
        • Children who initiate vaccination at 8 weeks through 6 months: Administer doses at ages 2, 4, 6, and 12 months.
        • Unvaccinated children 7 through 23 months: Administer 2 doses, with the 2nd dose at least 12 weeks after the first dose and after the first birthday.
     2. MenHibrix
        • Children 6 through 18 months: Administer 2 doses at ages 2, 4, 6, and 12 through 15 months.
        • If the first dose of MenHibrix is given at or after age 12 months, a total of 2 doses against S. pneumoniae should be given at least 8 weeks apart to ensure protection against serogroups C and Y meningococcal disease.

(continued)