### 11 Serogroup A, C, W, Y meningococcal vaccines (minimum age: 2 months [Menveo], 9 months [Menactra])

#### Routine vaccination
- 2-dose series: 11–12 years and 16 years.

#### Catch-up vaccination
- Age 13–15 years: 1 dose now and booster at age 16–18 years. Minimum interval 8 weeks.
- Age 16–18 years: 1 dose.

#### Special populations and Situations
- Anatomic or functional asplenia, sickle cell disease, persistent complement component deficiency (including euclizumab use), serogroup B meningococcal disease outbreak
  - MenB: 2-dose series at least 1 month apart.
  - Trumenba: 3-dose series at 0, 1–2, and 6 months.

#### Vaccine usage
- **Menactra (9–23 months)**
  - 2 doses (2nd dose at least 12 weeks after the 1st dose. 2nd dose may be administered as early as 8 weeks after the 1st dose in travelers).
  - Children 2 years or older
    - 1 dose of Menveo or Menactra.

#### Clinical discretion
- Adolescents at increased risk for meningococcal B infection who want MenB vaccine.
- MenB vaccines may be given at clinical discretion to adolescents 16–23 years (preferred age 16–18 years) who are not at increased risk.
  - **Bexsero**: 2 doses at least 1 month apart.
  - **Trumenba**: 2 doses at least 6 months apart. If the 2nd dose is given earlier than 6 months, give a 3rd dose at least 4 months after the 2nd.

#### Special situations
- Previously unvaccinated persons who should be vaccinated
- Persons traveling to or living in countries where meningococcal disease is endemic
- Persons who anticipate close, personal contact (e.g., health care workers, persons with clotting-factor disorders, Men who have sex with men, Persons with chronic liver disease, Persons who anticipate close, personal contact (e.g., household or regular babysitting) with an international adoptee during the first 60 days after arrival in the United States from a country with high or intermediate endemicity (administer the 1st dose as soon as the adoption is planned - ideally at least 2 weeks before the adoptee’s arrival).

### 12 Serogroup B meningococcal vaccines (minimum age: 10 years [Bexsero, Trumenba])

#### Clinical discretion
- Adolescents not at increased risk for meningococcal B infection who want MenB vaccine.
- MenB vaccines may be given at clinical discretion to adolescents 16–23 years (preferred age 16–18 years) who are not at increased risk.
  - **Bexsero**: 2 doses at least 1 month apart.
  - **Trumenba**: 3-dose series at 0, 1–2, and 6 months.

#### Vaccine usage
- **Bexsero and Trumenba** are not interchangeable. For additional meningococcal vaccination information, see meningococcal MMWR publications at www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/mening.html.

#### Special situations
- Anatomic or functional asplenia, sickle cell disease, persistent complement component deficiency (including euclizumab use), serogroup B meningococcal disease outbreak
  - MenB: 2-dose series at least 1 month apart.
  - Trumenba: 3-dose series at 0, 1–2, and 6 months.

### 13 Tetanus, diphtheria, and acellular pertussis (Tdap) vaccine (minimum age: 11 years for routine vaccination, 7 years for catch-up vaccination)

#### Routine vaccination
- Adolescents 11–12 years of age: 1 dose.
- Pregnant adolescents: 1 dose during each pregnancy (preferably during the early part of gestational weeks 27–36).
- Tdap may be administered regardless of the interval since the last tetanus- and diphtheria-toxoid-containing vaccine.

#### Catch-up vaccination
- Adolescents 13–18 years who have not received Tdap: 1 dose, followed by a Td booster every 10 years.
- Persons age 7–18 years not fully immunized with DTaP: 1 dose of Tdap as part of the catch-up series (preferably the first dose). If additional doses are needed, use Td.
- Children 7–10 years who receive Tdap inadvertently or as part of the catch-up series may receive the routine Tdap dose at 11–12 years.
- DTaP inadvertently given after the 7th birthday:
  - Child 7–10: DTaP may count as part of catch-up series. Routine Tdap dose at 11–12 may be given.
  - Adolescent 11–18: Count dose of DTaP as the adolescent Tdap booster.
- For other catch-up guidance, see Figure 2.

### 14 Human papillomavirus (HPV) vaccine (minimum age: 9 years)

#### Routine and Catch-up vaccination
- Routine vaccination for all adolescents at 11–12 years (can start at age 9) and through age 18 if not previously adequately vaccinated. Number of doses dependent on age at initial vaccination:
  - Age 9–14 years at initiation: 2-dose series at 0 and 6–12 months. Minimum interval: 5 months (repeat a dose given too soon at least 12 weeks after the invalid dose and at least 5 months after the 1st dose).
  - Age 15 years or older at initiation: 3-dose series at 0, 1–2 months, and 6 months. Minimum intervals: 4 weeks between 1st and 2nd dose, 12 weeks between 2nd and 3rd dose; 5 months between 1st and 3rd dose (repeat dose[s] given too soon at or after the minimum interval since the most recent dose).
- Persons who have completed a valid series with any HPV vaccine do not need any additional doses.

#### Special situations
- History of sexual abuse or assault: Begin series at age 9 years.
- Immunocompromised* (including HIV) age 9–26 years: 3-dose series at 0, 1–2, 6 months.
- Pregnancy: Vaccination not recommended, but there is no evidence the vaccine is harmful. No intervention is needed for women who inadvertently received a dose of HPV vaccine while pregnant. Delay remaining doses until after pregnancy. Pregnancy testing not needed before vaccination.

* See MMWR, December 16, 2016;65(49):1405–1408 at www.cdc.gov/mmwr/volumes/65/rr/pdfs/mm6549a5.pdf

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**The table below shows vaccine acronyms, and brand names for vaccines routinely recommended for children and adolescents. The use of trade names in this immunization schedule is for identification purposes only and does not imply endorsement by the ACIP or CDC.**

<table>
<thead>
<tr>
<th>Vaccine Type</th>
<th>Abbreviation</th>
<th>Brand(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diphtheria, tetanus, and acellular pertussis</td>
<td>DTaP</td>
<td>Daptacel; Infanrix</td>
</tr>
<tr>
<td>Diphtheria, tetanus</td>
<td>DT</td>
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<tr>
<td>Haemophilus influenzae type B</td>
<td>Hib (PRP-T)</td>
<td>ActHIB; Hibcens; PedvaxHIB</td>
</tr>
<tr>
<td>Haemophilus A</td>
<td>HibA</td>
<td>Havrix; Vaqta</td>
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<tr>
<td>Haemophilus B</td>
<td>HibB</td>
<td>Engerix-B; Recombivax HB</td>
</tr>
<tr>
<td>Human papillomavirus</td>
<td>HPV</td>
<td>Gardasil 9</td>
</tr>
<tr>
<td>Influenza (inactivated)</td>
<td>IIV</td>
<td>Multiple</td>
</tr>
<tr>
<td>Measles, mumps, and rubella</td>
<td>MMR</td>
<td>M-M-R II</td>
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<tr>
<td>Meningococcal serogroups A, C, W, Y</td>
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<td>Menactra</td>
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<tr>
<td>Meningococcal serogroup B</td>
<td>MenBIC</td>
<td>Bexsero</td>
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<td>PCV13</td>
<td>Prevenar 13</td>
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<td>Pneumococcal 23-valent polysaccharide</td>
<td>PPV23</td>
<td>Pneumovax 23</td>
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<td>Poliovirus (inactivated)</td>
<td>IPV</td>
<td>IPOL</td>
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<td>Rotarix</td>
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<td>Rotavirus</td>
<td>RV5</td>
<td>Rotarix RotaTeq</td>
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<td>Adacel; Boostrix</td>
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<td>Tênvac; No trade name</td>
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<tr>
<td>MMR and VAR</td>
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<td>ProQuad</td>
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