2019-2020 Preventive Health Guidelines for Adults 18 years and Older

Part I: Adults at Average Risk

1. Periodic evaluations (Reference 28- SGIM)
   a) Height and Weight Measurement: Get baseline height at initial visit and weight at every visit (References: 29 – AHA; 30 - USPSTF)
   b) Calculation of Body Mass Index: At every visit (References: 30 – USPSTF; 29 - AHA)
   c) Blood Pressure Measurement: At every visit (References: 31 - USPSTF)

2. Counseling
   Provide health counseling regarding the following topics: (Reference: 18, 30, 34, 35, 37, 62 – USPSTF, 38 - ACS)
   a) Avoidance of tobacco and/or tobacco cessation
   b) Weight loss for obese adults
   c) Promotion of healthy diet
   d) Benefits of physical activity
   e) Alcohol use
   f) Sexually transmitted infection prevention
   g) Risks and symptoms of endometrial cancer to women of average risk at the time of menopause. Strongly encourage women to report and unexpected bleeding or spotting to their physicians.
   h) Minimizing exposure to ultraviolet radiation to reduce risk for skin cancer

3. Screening Tests
   a) Cholesterol
      Note: Recommendations from different national entities vary. We encourage review of the detailed and nuanced language in the following references: (References: 39 – USPSTF; 40 - ADA; 70 - AHA).
      • Screen men age 35 and older for lipid disorders.
      • Screen women age 45 and older for lipid disorders if they are at increased risk for coronary heart disease.
      • Men age 20 to 35 and women age 20 to 45 that are at increased risk for coronary heart disease should be screened for lipid disorder.
      • Reasonable options for screening interval include: every 5 years; screening at < 5 year intervals for people who have lipid levels close to those warranting therapy; and screening at intervals >5 years for low-risk people who have had low or repeatedly normal lipid levels.
      • For adult diabetics, perform a lipid profile at least annually. If lipid values are low-risk, the lipid profile may be performed every two years.

   b) Breast cancer screening (female only)
      Note: Recommendations from different national entities vary. We encourage review of the detailed and nuanced language in the following references: (References: 33, 41 – USPSTF; 32 – ACS)
• Screen women aged 50 to 74 years for breast cancer with biennial mammography. Some entities recommend annual mammography in this age group.
• The decision to start regular, biennial screening mammography before the age of 50 years should be an individual one and take patient context into account, including the patient's values regarding specific benefit and harm. Some entities recommend annual mammography in the 40 to 49 age group.
• Primary care providers should screen women who have family members with breast, ovarian, tubal, or peritoneal cancer with one of several screening tools designed to identify a family history that may be associated with an increased risk for potentially harmful mutations in breast cancer susceptibility genes (BRCA1 or BRCA2). Women with positive screening results should receive genetic counseling and, if indicated after counseling, BRCA testing.

c) Cervical Cancer Screening (Pap) (female only) (References: 25 – USPSTF; 26 – ACS; also see Reference 27 – ACOG)
• The USPSTF recommends screening for cervical cancer every 3 years with cervical cytology alone in women aged 21 to 29 years.
• For women aged 30 to 65 years, the USPSTF recommends screening every 3 years with cervical cytology alone, every 5 years with high-risk human papillomavirus (hrHPV) testing alone, or every 5 years with hrHPV testing in combination with cytology (cotesting).

d) Prostate Cancer Screening (male only) (Reference: 42 – ACS; also see references 43 – USPSTF and 44 – AUA)
• Prostate cancer screening recommendations vary, and review of the detailed language in the references is recommended. The USPSTF recommends men ages 55 to 69 make an individual decision about prostate cancer screening with their clinician. The Task Force recommends against routine screening for men age 70 and older. The American Cancer Society (ACS) and the American Urological Association (AUA) recommend an informed decision-making process for men age 50 and older (ACS) or men age 55-69 (AUA) who have at least a ten-year life expectancy. Among the potential considerations for informed decision making are the risks, benefits and uncertainties of screening, as well as individual values and preferences. ACS states that prostate cancer screening should not occur without an informed decision-making process.

e) Colorectal Cancer Screening (Reference: 46 – USPSTF; also see References 45 – ACS and 47 - ACOG)
Screen men and women age 50-75 for colorectal cancer using:
• Guaiac Fecal Occult Blood Test (gFOBT) annually or;
• Fecal Immunochemical Testing(FIT) annually or;
• Fecal Immunochemical Testing(FIT)-DNA every 3 years or;
• Flexible sigmoidoscopy every 5 years or;
• Flexible sigmoidoscopy every 10 years with FIT annually or;
• Colonoscopy every 10 years or;
• CT Colonography every 5 years

For pt. at high risk it is recommend you have an in-depth conversation with your physician (e.g., personal family history of colorectal disease or other hereditary syndromes.)
Note: Single-panel gFOBT performed in the medical office using a stool sample collected during a digital rectal examination is not a recommended option for CRC screening due to its very low sensitivity for advanced adenomas and cancer.

- Some entities recommend annual colorectal cancer screening in the 45 to 49 age group. The decision to start colorectal cancer screening before the age of 50 years should be an individual one and take into account patient context, disease risk, and include the patient’s preferences and values regarding specific benefit and harm.

f. Screening for Depression (Reference: 48, 75 – USPSTF)
- Screening for depression in the general adult population, including pregnant and postpartum women. Screening should be implemented with adequate systems in place to ensure accurate diagnosis, effective treatment, and appropriate follow-up.
- Clinicians should provide or refer pregnant and postpartum persons who are at increased risk of perinatal depression to counseling interventions

g. Screening for Alcohol Misuse (Reference: 35– USPSTF)
- Screen for unhealthy alcohol use in primary care settings in adults 18 years or older, including pregnant women, and providing persons engaged in risky or hazardous drinking with brief behavioral counseling interventions to reduce unhealthy alcohol use

h. Counseling and Interventions to Address Tobacco Use (Reference: 34 – USPSTF).
- Ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. Provide augmented, pregnancy-tailored counseling for pregnant women who use tobacco

i. Screening for Obesity (Reference: 30 - USPSTF)
- Screen all adults for obesity. Clinicians should offer or refer patients with a body mass index (BMI) of 30 kg/m2 or higher to intensive, multicomponent behavioral interventions.

j. HIV Serology (Reference: 56 – USPSTF)
- Screen for HIV infection in adults age 18 to 65 years. Older adults who are at increased risk should also be screened. Screen all pregnant women for HIV, including those who present in labor who are untested and whose HIV status is unknown. The evidence is insufficient to determine optimum time intervals for HIV screening.

k. Screening for Intimate Partner Violence (Reference: 59 – USPSTF)
- Screen for intimate partner violence (IPV) in women of reproductive age and provide or refer women who screen positive to ongoing support services

l. Screening for Hepatitis C (Reference: 64 – USPSTF)
- Screen for Hepatitis C (HCV) infection in persons at high risk for infection and offer one-time screening for HCV infection to adults born between 1945 and 1965.

m. Screening for Lung Cancer (Reference: 69 - USPSTF)
- Screen annually for lung cancer with low-dose computed tomography in adults ages 55 to 80 who have a 30 pack-year smoking history and currently smoke or have quit within the past 15 years. Screening should be discontinued once a person
has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative lung surgery.

4. **Immunizations** (References: 49, 50, 19 – ACIP)
   - Administer immunizations in accordance with the ACIP Recommended Adult Immunization Schedule or in accordance with state law or regulations. See the ACIP Recommended Adult Immunization Schedule at the end of this document.

5. **Preventive Treatment**
   a) **Aspirin** (Reference: 51 – USPSTF, 76 -ACC)
      - Adults aged 50 to 59 years with a ≥10% 10-year CVD risk: The USPSTF recommends initiating low-dose aspirin use for the primary prevention of cardiovascular disease (CVD) and colorectal cancer (CRC) in adults aged 50 to 59 years who have a 10% or greater 10-year CVD risk, are not at increased risk for bleeding, have a life expectancy of at least 10 years, and are willing to take low-dose aspirin daily for at least 10 years.

   b) **Folic acid** (Reference: 52 – USPSTF)
      - All women planning or capable of pregnancy should take a daily supplement containing 0.4 to 0.8 mg (400 to 800 µg) of folic acid.

   c) **Chemoprevention of breast cancer** (Reference: 53 – USPSTF)
      - Engage in shared, informed decision making with women who are at increased risk for breast cancer about medications to reduce their risk.
      - For women who are at increased risk for breast cancer and at low risk for adverse medication effects, clinicians should offer to prescribe risk-reducing medications.

   d) **Statins for Cardiovascular Disease Prevention** (Reference 39-USPSTF, 76 ACC)
      - The USPSTF recommends that adults without a history of cardiovascular disease (CVD) (i.e. symptomatic coronary artery disease or ischemic stroke) use a low- to moderate-dose statin for the prevention of CVD events and mortality when all the following criteria are met:
        - they are aged 40 to 75 years;
        - they have 1 or more CVD risk factors (i.e. dyslipidemia, diabetes, hypertension, or smoking);
        - they have a calculated 10-year risk of a cardiovascular event of 10% or greater.
      - Identification of dyslipidemia and calculation of 10-year CVD event risk requires universal lipids screening in adults aged 40 to 75 years.

*Part II: Recommendations for Select Adult Populations at Increased Risk*

1. **Screening for Diabetes** (References: 54 – USPSTF; 55 – ADA)
Screening for abnormal blood glucose as part of cardiovascular risk assessment in adults aged 40 to 70 years who are overweight or obese. Clinicians should offer or refer patients with abnormal blood glucose to intensive behavioral counseling interventions to promote a healthful diet and physical activity.

Prevention or Delay of Type 2 Diabetes

- Test all adults, beginning at age 45, regardless of weight.
- Test asymptomatic adults of any age who are overweight, are obese, or have one or more additional risk factors for diabetes.
- Consider metformin therapy to prevent type 2 diabetes for:
  - Prediabetes;
  - BMI > 35 kg/m²
  - Age < 60 years
  - Women who have had gestational diabetes
- Refer patients with prediabetes to a program of intensive diet and physical activity with a behavioral counseling component:
  - Target 7% body weight loss
  - Encourage at least 150 minutes/week of moderate-intensity physical activity.
  - Offer follow-up, including counseling, diabetes self-management education, and ongoing support.

2. Tuberculosis Testing: Test person at increased risk for TB, (References: 23, 24 – CDC)

- Persons with increased risk for developing TB include the following:
  - Persons who may have recent infection, including: close contacts of persons with infectious pulmonary TB; persons who have recently immigrated from areas of the world with high rates of TB; or groups of people with high rates of TB transmission (homeless persons, those with HIV infections, injection drug use, persons who reside or work in institutional settings).
  - Persons with clinical conditions that are associated with progression to active TB, including: HIV infection, injections drug use, pulmonary fibrotic lesions on CXR, underweight, silicosis, chronic renal failure on hemodialysis, diabetes, gastrectomy, jejunoileal bypass, renal and cardiac transplantation, head and neck cancer, other neoplasms, prolonged corticosteroid or immunosuppressive therapy.

3. Syphilis Serology (References: 57, 58 – USPSTF)

- The USPSTF recommends screening for syphilis infection in persons who are at increased risk for infection.
- Perform early screening for all pregnant women.

4. Gonorrhea Screening (References: 17 – USPSTF)

- Screen for gonorrhea in sexually active women age 24 years and younger and in older women who are at increased risk for infection.

5. Chlamydia Screening (References: 16 – USPSTF)

- Screen for chlamydia in sexually active women age 24 years and younger and in older women who are at increased risk for infection.
6. Counseling and Interventions to Address Tobacco Use (Reference: 34 – USPSTF).
   • Ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. Provide augmented, pregnancy-tailored counseling for pregnant women who use tobacco.

7. Healthful Diet and Physical Activity for Cardiovascular Disease Prevention in Adults With Cardiovascular Risk Factors: Behavioral Counseling (Reference: 37 - USPSTF)
   • Offer or refer adults who are overweight or obese and have additional cardiovascular disease (CVD) risk factors to intensive behavioral counseling interventions to promote a healthful diet and physical activity for CVD prevention.

8. Screening for Hepatitis B Virus Infection (Reference: 68 - USPSTF)
   • Screen for Hepatitis B in adults at high risk for infection.
   • Risk factors include country of origin, HIV positive persons, Injection drug users, household contacts or sexual partners with HBV infection, and men who have sex with men.
   • Screening is also recommended for persons receiving hemodialysis or cytotoxic or immunosuppressive therapy.

9. Sexually Transmitted Infections: Behavioral Counseling (Reference: 18- USPSTF)
   • Intensive behavioral counseling for adults who are at increased risk for sexually transmitted infections (STIs).

Part III: Additional Recommendations for Adults Age 65 and Older

In addition to the services recommended in the guidelines for adults age 19 and older, the following services are recommended for individuals age 65 and older.

1. Immunizations (Reference: 49 – ACIP)
   • Administer immunizations in accordance with the ACIP Recommended Adult Immunization Schedule. A copy is attached.

2. Osteoporosis Screening (Reference: 60, 74 – USPSTF)
   • Screen for osteoporosis with bone measurement testing to prevent osteoporotic fractures in women 65 years and older.
   • Screen for osteoporosis with bone measurement testing to prevent osteoporotic fractures in postmenopausal women younger than 65 years who are at increased risk of osteoporosis, as determined by a formal clinical risk assessment tool.

3. Screening for Abdominal Aortic Aneurysm (Reference: 61 - USPSTF)
   • Men ages 65 to 75 who have ever smoked should be screened one time for abdominal aortic aneurysm, using ultrasonography.

4. Prevention of Falls in Community Dwelling Older Adults (Reference: 63 - USPSTF)
   • The USPSTF recommends exercise interventions to prevent falls in community-dwelling adults 65 years or older who are at increased risk for falls.
Recommended Adult Immunization Schedule, for ages 19 years or older, United States, 2019

For vaccine recommendations for persons age 0 through 18 years, see the Child and Adolescent Immunization Schedule.

*Haemophilus influenzae* type b vaccination

Special situations
- Anatomical or functional asplenia (including sickle cell disease): 1 dose Hib if previously did not receive Hib; if elective splenectomy, 1 dose Hib, preferably at least 14 days before splenectomy
- Hematopoietic stem cell transplant (HSCT): 3-dose series Hib 4 weeks apart starting 6–12 months after successful transplant, regardless of Hib vaccination history

Hepatitis A vaccination

Routine vaccination
- Not at risk but want protection from hepatitis A (identification of risk factor not required): 2-dose series HepA (Havrix 6–12 months apart or Vaqta 6–18 months apart [minimum interval: 6 months]) or 3-dose series HepA-HepB (Twinrix at 0, 1, 6 months [minimum intervals: 4 weeks between doses 1 and 2, 5 months between doses 2 and 3])

Special situations
- At risk for hepatitis A virus infection: 2-dose series HepA as above
  - Chronic liver disease
  - Clotting factor disorders
  - Men who have sex with men
  - Injection or non-injection drug use
  - Homelessness
  - Work with hepatitis A virus in research laboratory or nonhuman primates with hepatitis A virus infection
  - Travel in countries with high or intermediate endemic hepatitis A
  - Close personal contact with international adoptee (e.g., household, regular babysitting) in first 60 days after arrival from country with high or intermediate endemic hepatitis A (administer dose 1 as soon as adoption is planned, at least 2 weeks before adoptee’s arrival)

Hepatitis B vaccination

Routine vaccination
- Not at risk but want protection from hepatitis B (identification of risk factor not required): 2- or 3-dose series HepB (2-dose series Heplisav-B at least 4 weeks apart [2-dose series HepB only applies when 2 doses of Heplisav-B are used at least 4 weeks apart] or 3-dose series Engerix-B or Recombivax HB at 0, 1, 6 months [minimum intervals: 4 weeks between doses 1 and 2, 8 weeks between doses 2 and 3, 16 weeks between doses 1 and 3]) or 3-dose series HepA-HepB (Twinrix at 0, 1, 6 months [minimum intervals: 4 weeks between doses 1 and 2, 5 months between doses 2 and 3])
Special situations

- At risk for hepatitis B virus infection: 2-dose (HepBav-B) or 3-dose (Engerix-B, Recombivax HB) series HepB, or 3-dose series HepA-HepB as above
  - Hepatitis C virus infection
  - Chronic liver disease (e.g., cirrhosis, fatty liver disease, alcoholic liver disease, autoimmune hepatitis, alanine aminotransferase [ALT] level greater than twice upper limit of normal)
  - HIV infection
  - Sexual exposure risk (e.g., sex partners of hepatitis B surface antigen (HBsAg)-positive persons; sexually active persons not in mutually monogamous relationships, persons seeking evaluation or treatment for a sexually transmitted infection, men who have sex with men)
  - Current or recent injection drug use
  - Percutaneous or mucosal risk for exposure to blood (e.g., household contacts of HBsAg-positive persons; residents and staff of facilities for developmentally disabled persons; health care and public safety personnel with reasonably anticipated risk for exposure to blood or blood-contaminated body fluids; hemodialysis, peritoneal dialysis, home dialysis, and predialysis patients; persons with diabetes mellitus age younger than 60 years and, at discretion of treating clinician, those age 60 years or older)
  - Incarcerated persons
  - Travel in countries with high or intermediate endemic hepatitis B

Human papillomavirus vaccination

Routine vaccination

- Females through age 26 years and males through age 21 years: 2- or 3-dose series HPV vaccine depending on age at initial vaccination; males age 22 through 26 years may be vaccinated based on individual clinical decision (HPV vaccination routinely recommended at age 11-12 years)
- Age 15 years or older at initial vaccination: 3-dose series HPV vaccine at 0, 1-2, 6 months (minimum intervals: 4 weeks between doses 1 and 2, 12 weeks between doses 2 and 3, 5 months between doses 1 and 3; repeat dose if administered too soon)
- Age 9 through 14 years at initial vaccination and received 1 dose, or 2 doses less than 5 months apart: 1 dose HPV vaccine
- Age 9 through 14 years at initial vaccination and received 2 doses at least 5 months apart: HPV vaccination complete, no additional dose needed
- If completed valid vaccination series with any HPV vaccine, no additional doses needed

Special situations

- Immunocompromising conditions (including HIV infection) through age 26 years: 3-dose series HPV vaccine at 0, 1-2, 6 months as above
- Men who have sex with men and transgender persons through age 26 years: 2- or 3-dose series HPV vaccine depending on age at initial vaccination as above
- Pregnancy through age 26 years: HPV vaccination not recommended until after pregnancy; no intervention needed if vaccinated while pregnant; pregnancy testing not needed before vaccination

Influenza vaccination

Routine vaccination

- Persons age 6 months or older: 1 dose IIV, RIV, or LAIV appropriate for age and health status annually
- For additional guidance, see www.cdc.govflu/professionals/index.htm

Special situations

- Egg allergy, hives only: 1 dose IIV, RIV, or LAIV appropriate for age and health status annually
- Egg allergy more severe than hives (e.g., angioedema, respiratory distress): 1 dose IIV, RIV, or LAIV appropriate for age and health status annually in medical setting under supervision of health care provider who can recognize and manage severe allergic conditions
- Immunocompromising conditions (including HIV infection), anatomical or functional asplenia, pregnant women, close contacts and caregivers of severely immunocompromised persons in protected environment, use of influenza antiviral medications in previous 48 hours, with cerebrospinal fluid leak or cochlear implant: 1 dose IIV or RIV annually (LAIV not recommended)
- History of Guillain-Barré syndrome within 6 weeks of previous dose of influenza vaccine: Generally should not be vaccinated
Special situations

- **Age 19 through 64 years with chronic medical conditions** (chronic heart [excluding hypertension], lung, or liver disease; diabetes), alcoholism, or cigarette smoking: 1 dose PPV23
- **Age 19 years or older with immunocompromising conditions** (congenital or acquired immunodeficiency [including B- and T-lymphocyte deficiency, complement deficiencies, phagocytic disorders, HIV infection], chronic renal failure, nephrotic syndrome, leukemia, lymphoma, Hodgkin disease, generalized malignancy, iatrogenic immunosuppression [e.g., drug or radiation therapy], solid organ transplant, multiple myeloma) or anatomical or functional asplenia (including sickle cell disease and other hemoglobinopathies): 1 dose PCV13 followed by 1 dose PPV23 at least 8 weeks later, then another dose PPV23 at least 5 years after previous PPV23; at age 65 years or older, administer 1 dose PPV23 at least 5 years after most recent PPV23 (note: only 1 dose PPV23 recommended at age 65 years or older)
- **Age 19 years or older with cerebrospinal fluid leak or cochlear implant**: 1 dose PCV13 followed by 1 dose PPV23 at least 8 weeks later; at age 65 years or older, administer another dose PPV23 at least 5 years after PPV23 (note: only 1 dose PPV23 recommended at age 65 years or older)

**Tetanus, diphtheria, and pertussis vaccination**

Routine vaccination

- Previously did not receive Tdap at or after age 11 years: 1 dose Tdap, then Td booster every 10 years

Special situations

- Previously did not receive primary vaccination series for tetanus, diphtheria, and pertussis: 1 dose Tdap followed by 1 dose Td at least 4 weeks after Tdap, and another dose Td 6-12 months after last Td (Tdap can be substituted for any Td dose, but preferred as first dose); Td booster every 10 years thereafter
- **Pregnancy**: 1 dose Tdap during each pregnancy, preferably in early part of gestational weeks 27-36
- For information on use of Tdap or Td as tetanus prophylaxis in wound management, see Prevention of Pertussis, Tetanus, and Diphtheria with Vaccines in the United States: Recommendations of the Advisory Committee on Immunization Practices (ACIP)

**Varicella vaccination**

Routine vaccination

- **No evidence of immunity to varicella**: 2-dose series VAR 4-8 weeks apart if previously did not receive varicella-containing vaccine (VAR or MMR [measles-mumps-rubella-varicella vaccine] for children); if previously received 1 dose varicella-containing vaccine: 1 dose VAR at least 4 weeks after first dose
  - Evidence of immunity: U.S.-born before 1980 (except for pregnant women and health care personnel [see below]), documentation of 2 doses varicella-containing vaccine at least 4 weeks apart, diagnosis or verification of history of varicella or herpes zoster by a health care provider, laboratory evidence of immunity or disease

Special situations

- **Pregnancy with no evidence of immunity to varicella**: VAR contraindicated during pregnancy; after pregnancy (before discharge from health care facility), 1 dose VAR if previously received 1 dose varicella-containing vaccine, or dose 1 of 2-dose series VAR (dose 2: 4-8 weeks later) if previously did not receive any varicella-containing vaccine, regardless of whether U.S.-born before 1980
- **Health care personnel with no evidence of immunity to varicella**: 1 dose VAR if previously received 1 dose varicella-containing vaccine, or 2-dose series VAR 4-8 weeks apart if previously did not receive any varicella-containing vaccine, regardless of whether U.S.-born before 1980
- **HIV infection with CD4 count ≥200 cells/μL with no evidence of immunity**: Consider 2-dose series VAR 3 months apart based on individual clinical decision; VAR contraindicated in HIV infection with CD4 count <200 cells/μL
- **Severe immunocompromising conditions**: VAR contraindicated
Measles, mumps, and rubella vaccination

Routine vaccination
- No evidence of immunity to measles, mumps, or rubella: 1 dose MMR
  - Evidence of immunity: Born before 1957 (except health care personnel), documentation of receipt of MMR, laboratory evidence of immunity or disease (diagnosis of disease without laboratory confirmation is not evidence of immunity)

Special situations
- Pregnancy with no evidence of immunity to rubella: MMR contraindicated during pregnancy; after pregnancy (before discharge from health care facility), 1 dose MMR
- Non-pregnant women of childbearing age with no evidence of immunity to rubella: 1 dose MMR
- HIV infection with CD4 count <200 cells/µL for at least 6 months and no evidence of immunity to measles, mumps, or rubella: 2-dose series MMR at least 4 weeks apart; MMR contraindicated in HIV infection with CD4 count <200 cells/µL
- Severe immunocompromising conditions: MMR contraindicated
- Students in postsecondary educational institutions, international travelers, and household or close personal contacts of immunocompromised persons with no evidence of immunity to measles, mumps, or rubella: 1 dose MMR if previously received 1 dose MMR, or 2-dose series MMR at least 4 weeks apart if previously did not receive any MMR
- Health care personnel born in 1957 or later with no evidence of immunity to measles, mumps, or rubella: 2-dose series MMR at least 4 weeks apart for measles or mumps, or at least 1 dose MMR for rubella; if born before 1957, consider 2-dose series MMR at least 4 weeks apart for measles or mumps, or 1 dose MMR for rubella

Meningococcal vaccination

Special situations for MenACWY
- Anatomical or functional asplenia, including sickle cell disease, HIV infection, persistent complement component deficiency, eczulizumab use: 2-dose series MenACWY (Menacra, Meneve) at least 8 weeks apart and revaccinate every 5 years if risk remains
- Travel in countries with hyperendemic or epidemic meningococcal disease, microbiologists routinely exposed to Neisseria meningitidis: 1 dose MenACWY and revaccinate every 5 years if risk remains
- First-year college students who live in residential housing (if not previously vaccinated at age 16 years or older) and military recruits: 1 dose MenACWY

Special situations for MenB
- Anatomical or functional asplenia, including sickle cell disease, persistent complement component deficiency, eczulizumab use, microbiologists routinely exposed to Neisseria meningitidis: 2-dose series MenB-4C (Bexsero) at least 1 month apart, or 3-dose series MenB-FHbp (Trumenba) at 0, 1–2, 6 months (if dose 2 was administered at least 6 months after dose 1, dose 3 not needed); MenB-4C and MenB-FHbp are not interchangeable (use same product for all doses in series)
- Pregnancy: Delay MenB until after pregnancy unless at increased risk and vaccination benefit outweighs potential risks
- Healthy adolescents and young adults age 16 through 23 years (age 16 through 18 years preferred) not at increased risk for meningococcal disease: Based on individual clinical decision, may receive 2-dose series MenB-4C at least 1 month apart, or 2-dose series MenB-FHbp at 0, 6 months (if dose 2 was administered less than 6 months after dose 1, administer dose 3 at least 4 months after dose 2); MenB-4C and MenB-FHbp are not interchangeable (use same product for all doses in series)

Pneumococcal vaccination

Routine vaccination
- Age 65 years or older (immunocompetent): 1 dose PCV13 if previously did not receive PCV13, followed by 1 dose PPSV23 at least 1 year after PCV13 and at least 5 years after last dose PPSV23
  - Previously received PPSV23 but not PCV13 at age 65 years or older: 1 dose PCV13 at least 1 year after PPSV23
  - When both PCV13 and PPSV23 are indicated, administer PCV13 first (PCV13 and PPSV23 should not be administered during same visit)