

PrimePartners

for Case Managers

Volume 9, Issue 11
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Thank You for Another Great Year!

PrimeWest Health thanks you for all you do for our members and we are looking forward to working with you in 2016. Have a safe and happy holiday season! 



Accessing the eCare Plan

County case managers are now able to access the eCare Plan directly through the PrimeWest Health website. Go to www.primewest.org and select *eCare Plan* in the Login menu. 



Durable Medical Equipment (DME) and Personal Care Assistant (PCA) Verification Process

Jennifer Bundy, RN, MSN, PHN, CMCN, CCP, Complex Care and Disease Management Manager

As part of PrimeWest Health's Compliance program, Member Services staff call members who receive durable medical equipment (DME) and Personal Care Assistant (PCA) services to verify the service/product was actually rendered as billed. This is to ensure members are getting the care they need and that State and Federal funds are being disbursed correctly.

Occasionally, a care coordinator may contact the county case manager via email and/or phone when there is a discrepancy between what was billed and what was provided. If you are contacted, the care coordinator will ask you to verify the information. This may include calling the member, provider, or supplier.

If you have any questions or concerns about this process, please contact **Jennifer Bundy**. 

Non-Medical Transportation in Customized Living (CL)

Kristi Shamp, RN, BSN, PHN, CPHM, SNP Senior Care/UM Care Coordinator

Non-medical transportation is a component service area covered as part of Customized Living (CL) services. A driver's time and mileage—when a member is in the vehicle and being transported within the community—should be allotted to this service area. Transportation and mileage rates are differentiated according to whether the service is being provided to an individual or a group of riders.

Time should **not** be included for time spent arranging for or providing Medical Assistance (Medicaid) State Plan transportation, transportation that would otherwise be provided by informal caregivers, or the time of additional

staff who must accompany a member due to health needs. Miles when a member is not in the vehicle should also not be included.

When facility staff members are required to provide assistance in the community, it should be authorized under the applicable component service. For example, time needed to help a member with physical limitations by pushing a wheelchair should be authorized under the component service area “assistance with use of wheelchair.”

If you have questions, please contact **Kristi Shamp**. 

Hospice and Member Death Notification Reminders

Kristi Shamp, RN, BSN, PHN, CPHM, SNP Senior Care/UM Care Coordinator

PrimeWest Health no longer requires county case managers to complete the *Hospice Update to PrimeWest Health* form when a member goes on or off of hospice or dies. Please delete this step from your workflows. PrimeWest Health *does* still require email notification when a member is admitted to or discharged from hospice and when a member dies.

When a member is **admitted to hospice**, send an email that includes the following:

- Hospice admission date
- Hospice provider
- Hospice diagnosis

When a member is **discharged from hospice**, send an email that includes the date of hospice discharge.

When a member **dies**, send an email that includes the following:

- Date of death
- Whether the member was on hospice
- Whether the death occurred in a hospital

Please direct emails for PrimeWest Senior Health Complete (HMO SNP) and Minnesota Senior Care Plus (MSC+) members to seniorcare@primewest.org. Emails for Special Needs BasicCare (SNBC) and Prime Health Complete (HMO SNP) members can be directed to snbc.phc@primewest.org.

Please contact **Shirley Saathoff** with questions. 

Live Well at HomeSM

Kristi Shamp, RN, BSN, PHN, CPHM, SNP Senior Care Coordinator/UM Care Coordinator

The Minnesota Board on Aging developed the Live Well at HomeSM program to help people live *well* and *longer* in their own homes. Risk screenings, education, professional consultations, caregiver support, and a wide range of solutions to help older Minnesotans successfully live at home are offered through partnerships with local Area Agencies on Aging and community-based providers.

Additional information, including a professional toolkit designed as a resource for county case managers, can be found at www.mnlivewellathome.org. 

What Is Complex Case Management?

Jennifer Bundy, RN, MSN, PHN, CMCN, CCP, Complex Care and Disease Management Manager

The PrimeWest Health complex case management program is designed for members who are not eligible for any other form of case management services and who have chronic conditions or special health care needs. Members with special health care needs include those experiencing acute physical or mental health trauma, those with a chronic physical or mental health diagnosis, and those at risk for chronic disease or deterioration of health.

PrimeWest Health identifies members who may benefit from complex case management services through a variety of ways including claims; encounter and pharmacy data; and provider, caregiver, and member referrals.

Complex case management is a voluntary program that offers ongoing support, monitoring, education, and evaluation of the member's needs and goals. As part of complex case management, members complete a comprehensive health risk assessment (HRA) and receive a comprehensive care plan. Complex case management is intended to be a short-term service to help members address the identified need that triggered the referral for the service.

Complex case management goals

PrimeWest Health has the following goals for our complex case management program:

- Improve members' quality of life and health status
- Reduce members' risk of adverse events
- Help members build skills to change and sustain behaviors that influence controllable risk factors
- Provide education and support to help members make health-related lifestyle changes
- Help members with self-management skill building
- Provide Medication Therapy Management (MTM), as indicated
- Encourage ongoing support from members of the treatment team, family, friends, and community
- Maintain and/or reduce emergency room utilization
- Manage health plan costs by promoting prevention and early intervention

If you have questions about complex case management or would like to refer a member, please contact **Jennifer Bundy**. 

Vaccines Aren't Just for Kids: Encourage Adults to Get Vaccinated

Ann Challes, RN, BSN, PHN, CMCN, Women & Children Care Coordinator

The Centers for Disease Control and Prevention (CDC) reports that many adults are not being vaccinated against life-threatening diseases. This may be because many people think of vaccines as something that kids get. The truth is that adults need to keep up on their vaccines as well. Talk with adult members to be sure they know this and encourage them to get the recommended vaccines.

You can help teach members that staying up to date on their vaccines can help them stay healthy and able to do the things they enjoy. Let them know, too, that vaccines provide "herd immunity." This means that not only will the member be protected from certain diseases, it will provide a level of protection to his/her children or grandchildren as well. It will also help protect those individuals who are too young to be vaccinated or who are unable to be vaccinated for other reasons such as a medical condition or allergy.

Adults who have a chronic condition, such as those who have diabetes or heart or lung disease, are at an increased risk for complications from many diseases that vaccines can prevent. It is especially important for members who fall into this category to get vaccinated.

Commonly recommended vaccines for adults are an annual flu vaccine; a tetanus, diphtheria toxoids, and acellular pertussis (Tdap) vaccine; the pneumococcal polysaccharide vaccine; and the zoster (shingles) vaccine for

people age 60 and over. Starting in late December, members can find a full list of recommended vaccines for adults in the Winter 2015/New Member 2016 issue of *PrimeLines*, which can be found on our website at www.primewest.org/primelines.

We have included the CDC's "Recommended Adult Immunization Schedule—United States – 2015" at the end of this issue for your review. It contains dosing information as well as contraindications.

If you have any questions about adult vaccines, please contact **Ann Challes**.

Source: CDC. "10 Reasons to Get Vaccinated." (February 6, 2015) www.cdc.gov/features/adultvaccinations. 

Health Care/Advance Directives

Elizabeth Warfield, RN, BSN, Senior Care Coordinator

A Health Care/Advance Directive is a written document that lays out a person's wishes about his/her health care. Educate all members about Health Care/Advance Directives and encourage them to complete one, review it often, and share their wishes. Why? Picture the following.

Jane was a relatively healthy 72-year-old woman. Her only ailments included some minor arthritis and a stable thyroid condition. When her husband, John, came home from the doctor's office with Health Care/Advance Directive forms to fill out, she told him not worry about it because their eldest daughter, Kathy, a registered nurse, would know what to do if something ever happened to either of them.

One day, John was having trouble finding something in the kitchen and called out to Jane, who was working in the garden. Jane did not answer. John found her lying in one of her flower beds. When he could not wake her up, he called 911. After the ambulance drove away, John called his daughter, Kathy. She picked him up and they left for the hospital. On the way, John expressed relief that Kathy would know what to do since she is a nurse. Kathy smiled uneasily.

John and Kathy did not receive good news when they arrived at the hospital. Jane had suffered a massive stroke and had been placed on life support. Tests revealed nearly absent brain activity and the doctor told them Jane would likely not survive on her own.

When the doctor asked if Jane had a Health Care/Advance Directive in place, Kathy shook her head "no" and asked if she and her father could have a few moments alone. She asked her father if he and her mother had ever discussed what Jane wanted done if something like this ever happened. John recounted the day his wife told him she felt Kathy could make the right decisions if something happened. Kathy felt her heart drop. As a nurse, she knew the importance of Health Care/Advance Directives but had failed to discuss them with her parents. The thought had crossed her mind, but they were so healthy...she thought she'd have more time.

Unfortunately, scenarios like this are quite common and illustrate the need to provide education about the importance of completing Health Care/Advance Directives as well as reviewing them periodically. In the scenario above, Jane was seemingly healthy and may have specified in her Health Care/Advance Directive that she wanted doctors to do everything they could to keep her alive. But, had she lived a few years longer and developed other, more serious health problems, her wishes might be dramatically different. This is why developing and updating Health Care/Advance Directives must be an individualized and ongoing process.

Each member, along with the agent the member appointed to carry out his/her health care wishes and the member's primary care provider, should have a copy of the document. PrimeWest Health members receive a *Health Care Directive* form in their new member packets. This document is also posted on our website at www.primewest.org/health-care-directives.

While the presence of a Health Care/Advance Directive cannot completely eliminate the difficulty surrounding a situation like the one in the previous scenario, it can leave members—and their loved ones—with peace of mind, knowing their wishes are documented and that there is someone they trust to make sure those wishes are followed. 

Anxiety and Anxiety Disorders

Rachel Mead, SNP Senior Care/UM Care Coordinator

Most people experience anxiety every day. People worry that they won't get their work done on time or that they won't do well on an exam. Sometimes this feeling of anxiety can act as a form of encouragement. For example, it can serve as motivation to study. Other times it can do much more harm than good.

Anxiety is classified as mild, moderate, or severe and can escalate to panic. Mild to moderate anxiety can be normal. However, when that anxiety begins to interfere with life and becomes severe or causes panic, it might be a sign of an anxiety disorder. According to "Anxiety Disorders," by Susanne J. Pavlovich-Danis, MSN, ARNP-C, CDE, CRRN, "Anxiety disorders are among the most prevalent and disabling psychiatric disorders, affecting more than 25 million Americans." Because of the high frequency of anxiety disorders, it is important to educate members about anxiety and be prepared to direct them to resources if they show signs of an anxiety disorder.

Anxiety can be caused by many things. For example, severe anxiety can be caused by persistent stress or extreme change. Anxiety is also widespread among people with chronic health conditions and is the most common psychiatric illness among the elderly. While stress, change, and health issues can all be contributing factors, new studies seem to show that anxiety may have a "genetic or biochemical basis and that it can arise without the presence of a major stressor (Pavlovich-Danis)."

There are several types of anxiety disorders, which are defined as "a complex of symptoms as well as behaviors patients exhibit in response to those symptoms (Pavlovich-Danis)." These include generalized anxiety disorder, panic disorder, obsessive-compulsive disorder (OCD), phobias, and post-traumatic stress disorder (PTSD).

Generalized anxiety

Generalized anxiety disorder is characterized by excessive and unreasonable anxiety that lasts at least six months. It occurs more frequently in women than men. Symptoms, which can include restlessness, fatigue, difficulty concentrating, irritability, muscle tension, and sleeping problems, often begin in late childhood, but can begin at any age. Generalized anxiety disorder later in life can occur with major depression.

Severe generalized anxiety disorder can lead to an inability to function socially or at work.

Panic

Panic disorder affects about 2.7 percent of the population and is twice as likely to occur in women. It is characterized by recurrent and sudden "attacks" that can last for several minutes and can cause dizziness, faintness, palpitations, trembling, sweating, nausea, numbness, flushes or chills, and chest pain. Given these symptoms, it's no surprise that many people who experience panic attacks feel like they are dying. Sometimes panic disorder is accompanied by substance abuse, depression, or suicidal impulses. People with panic attacks often change their routines and lives to avoid anything that might cause a panic attack. Symptoms similar to panic disorder can be caused by medical conditions, so it is important to rule out these causes before diagnosing panic disorder.

OCD

OCD occurs in 1 percent of the population, occurs equally in men and women, and usually first appears in teens or young adults. People with OCD experience recurrent and persistent thoughts, impulses, or images. Although OCD is no longer classified as an anxiety disorder, the intrusive thoughts and behaviors caused by OCD may lead to anxiety.

Phobias

There are two types of phobias: social and specific. A social phobia is a fear of being humiliated or embarrassed in a social setting. Fear of public speaking is a very common social phobia. Specific phobias are “intense, irrational fears of certain things or situations (Pavlovich-Danis).” Examples include fear of spiders, elevators, or flying. The fear is so strong that it interferes with a person’s ability to function, and the person will do anything possible to avoid the object of the phobia.

PTSD

PTSD usually occurs when a person experiences or witnesses a serious injury, death, or a grave threat to themselves or others. Not everyone who experiences a traumatic event will develop PTSD. Factors that increase the likelihood of developing PTSD within a year after the trauma include high stress during the year following the event, previous trauma, a history of stimulant use, and sleep-related complaints as early as one month after the event. Sexual assault is the most likely trigger event for developing PTSD. PTSD involves “recurring intrusive memories of the event, troubling nightmares and even flashbacks in which the person feels that he or she is actually reliving the event (Pavlovich-Danis).”

What you can do

If you know a member has high anxiety or a possible anxiety disorder, encourage the member to contact his/her primary care provider for an assessment. You can ease some of the pre-assessment stress by letting members know what to expect. The provider will ask several questions about symptoms, life events, and coping mechanisms. The provider might also ask about the member’s current prescription or over-the-counter (OTC) medications. This is done to make sure the symptoms aren’t a side effect of a medication. Let the member know his/her provider may make a referral to a mental health professional.

You can also encourage members by letting them know that treatment is available. Treatment options include relaxation training and progressive relaxation, biofeedback, cognitive behavioral therapy, medications, psychotherapy, or a combination of therapies. If a member is prescribed medication, make sure the provider talked with him/her about the side effects—some medications used to treat anxiety disorders lead to increased risks of suicidal thinking and behavior, especially in young adults.

Remind members that anxiety does not have to control their daily life. If it does, there are interventions that can help.

Source: Pavlovich-Danis, Susanne J. “Anxiety Disorders.” ContinuingEducation.com. <https://lms.nurse.com/Aspx/PrintTopic.aspx?topicid=565>. 

2016 Managed Care Key Dates

Kristi Shamp, RN, BSN, PHN, CPHM, SNP Senior Care/UM Care Coordinator

The Minnesota Department of Human Services (DHS) has published a chart showing the 2016 Managed Care Key Dates to be followed when entering screening documents into the Medicaid Management Information System (MMIS). The chart is posted on the PrimeWest Health website at www.primewest.org/delegate/resource/document/4b9ed040-48f6-4351-adbd-1b7ba0ee3e1A.

Rate cell categories are assigned by the State when they receive the required information from PrimeWest Health. County case managers must enter rate cell changes in MMIS (for members with new living arrangements and/or changes in Elderly Waiver [EW] nursing facility-certifiable status) on or before the enrollment cut-off date for PrimeWest Health to be paid at the new rate for the next available month. When a change to the rate cell criteria is entered in MMIS *after* the enrollment cut-off date, PrimeWest Health is paid at the rate corresponding to the new rate cell at the time of the next capitation payment.

The 2016 Managed Care Key Dates chart provides the capitation cut-off dates that must be met for PrimeWest Health members to be placed in the correct rate cell category. Please familiarize yourself with these dates to ensure correct rate cell placement. 

Models of Care: Part 4 of 4

The Models of Care are guidelines PrimeWest Health developed that help us ensure our members get the best care with the best outcomes. They provide a step-by-step process to develop personalized care plans for our members enrolled in PrimeWest Senior Health Complete (HMO SNP) and Prime Health Complete (HMO SNP).

You can review the Model of Care for each program on our website at www.primewest.org/modelofcare.

PrimeWest Health's 2015 Models of Care were approved upon PrimeWest Health's first submission to the Centers for Medicare & Medicaid Services (CMS), receiving a three-year approval and a score of 60/60.

This is the last in a series of articles that highlights the key details from each chapter of the Models of Care.

Chapter 4

Chapter 4 provides a description of the performance improvement and quality measures used to improve PrimeWest Health's ability to deliver high-quality health care services and benefits. PrimeWest Health has a comprehensive quality improvement system for collecting, analyzing, reporting, evaluating, and acting on recommendations for improving the Models of Care. It includes the following:

- Healthcare Effectiveness Data and Information Set (HEDIS) evaluation
- Quality improvement projects
- Focus studies
- Member satisfaction surveys
- Provider surveys
- Peer review activities
- Care management audits
- Program integrity audits
- Utilization Management reports
- Medical record reviews

PrimeWest Health has identified and defined five goals in the Models of Care.

1. Access for the SNP Population

Upon enrollment, all PrimeWest Senior Health Complete and Prime Health Complete members will have access to essential services, including medical, mental health, and social services, through the maintenance of a comprehensive network of contracted providers who meet stated regulatory accessibility requirements.

2. Affordability for the SNP Population

Based on State and Federal regulations, PrimeWest Health ensures all contracted providers accept PrimeWest Health's negotiated rates as payment in full and do not balance bill PrimeWest Health members for services rendered. The process through which this is accomplished includes, but is not limited to, the following: Customized Living (CL) tool pricing documentation, Service Authorization processes, member Grievances, and member education and communication. All PrimeWest Health members are enrolled in the State's Medicaid (Medical Assistance) program and subsequently have minimal or no out-of-pocket costs associated with obtaining health care and services.

3. Coordination of Care and Delivery of Service

PrimeWest Health has developed a comprehensive care management system that works to engage the member as soon as possible after enrollment in PrimeWest Senior Health Complete or Prime Health Complete by assigning a county case manager as the point of contact within 10 days of enrollment notification and notifying the member of this assignment. This process ensures that the member has direct contact with an individual who will assist him/her in navigating the continuum of care and with obtaining benefits and services. The county case manager ensures that a health risk assessment (HRA) is completed within 30 days of contact, completes a comprehensive individualized care plan (ICP) within 30 days of the HRA, and works with the member and caregiver to establish an Interdisciplinary Care Team (ICT) during the HRA.

4. Care Transitions Across All Health Care Settings

PrimeWest Health provides a structured process for members, health care providers, and Public Health and Human Services to interact and communicate as an ICT to address the social, economic, environmental, and

behavioral risk factors affecting member health at the individual and community levels during the transition. The ICT will provide a seamless transition across the continuum of care for PrimeWest Health members.

5. Assuring Appropriate Utilization of Services

PrimeWest Health will monitor current pharmacy and medical utilization trend data to identify actual or potential opportunities to improve medical care, mental health care, and social service provision. PrimeWest Health strives to improve health outcomes of members through maximization of preventive health services and care for chronic care conditions as documented for their assessed needs on the ICP.

For more information on the Models of Care, please contact **Catie Lee**. 

Important Dates

Please note there is *not* a county supervisor meeting or a county case management educational training in December. The dates below are for 2016.

✓ County supervisor meeting

Meetings are held on the third Thursday of the month, 10 a.m. – 3 p.m., at PrimeWest Health in Alexandria, unless otherwise noted.

December 2015 - No meeting!

January 21	July 21
February 18	August 18
March 17	September 15
April 21	October 20
May 19	November 17
June 16	December 15

✓ County case management educational training

Trainings are held on the fourth Wednesday of the month via webinar from 10 a.m. – noon, unless otherwise noted.

December 2015 - No meeting!

January 27	July 27
February 24	August 24
March 23	September 28
April 27	October 26
May 25	November 23
June 22	December 28

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You can find a PDF copy of *PrimePartners* by going to our website. Go to www.primewest.org/primepartners.

Recommended Adult Immunization Schedule

United States - 2015

The 2015 Adult Immunization Schedule was approved by the Centers for Disease Control and Prevention's (CDC) Advisory Committee on Immunization Practices (ACIP), American Academy of Family Physicians (AAFP), the American College of Physicians (ACP), the American College of Obstetricians and Gynecologists (ACOG), and the American College of Nurse-Midwives (ACNM). On February 3, 2015, the adult immunization schedule and a summary of changes from 2014 were published in the *Annals of Internal Medicine*, and a summary of changes was published in the *Morbidity and Mortality Weekly Report (MMWR)* on February 5, 2015.

All clinically significant postvaccination reactions should be reported to the Vaccine Adverse Event Reporting System (VAERS). Reporting forms and instructions on filing a VAERS report are available at www.vaers.hhs.gov or by telephone, 800-822-7967.

Additional details regarding ACIP recommendations for each of the vaccines listed in the schedule can be found at www.cdc.gov/vaccines/hcp/acip-recs/index.html.

American Academy of Family Physicians (AAFP)

www.aafp.org/

American College of Physicians (ACP)

www.acponline.org/

American College of Obstetricians and Gynecologists (ACOG)

www.acog.org/

American College of Nurse-Midwives (ACNM)

www.midwife.org/



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

Recommended Adult Immunization Schedule—United States - 2015

Note: These recommendations must be read with the footnotes that follow containing number of doses, intervals between doses, and other important information.

Figure 1. Recommended adult immunization schedule, by vaccine and age group¹

VACCINE ▼	AGE GROUP ►	19-21 years	22-26 years	27-49 years	50-59 years	60-64 years	≥ 65 years
Influenza ^{*2}		1 dose annually					
Tetanus, diphtheria, pertussis (Td/Tdap) ^{*3}		Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yrs					
Varicella ^{*4}		2 doses					
Human papillomavirus (HPV) Female ^{*5}		3 doses					
Human papillomavirus (HPV) Male ^{*5}		3 doses					
Zoster ⁶						1 dose	
Measles, mumps, rubella (MMR) ^{*7}		1 or 2 doses					
Pneumococcal 13-valent conjugate (PCV13) ^{*8}		1-time dose					
Pneumococcal polysaccharide (PPSV23) ⁸		1 or 2 doses					1 dose
Meningococcal ^{*9}		1 or more doses					
Hepatitis A ^{*10}		2 doses					
Hepatitis B ^{*11}		3 doses					
<i>Haemophilus influenzae</i> type b (Hib) ^{*12}		1 or 3 doses					

*Covered by the Vaccine Injury Compensation Program

	For all persons in this category who meet the age requirements and who lack documentation of vaccination or have no evidence of previous infection; zoster vaccine recommended regardless of prior episode of zoster
	Recommended if some other risk factor is present (e.g., on the basis of medical, occupational, lifestyle, or other indication)
	No recommendation

Report all clinically significant postvaccination reactions to the Vaccine Adverse Event Reporting System (VAERS). Reporting forms and instructions on filing a VAERS report are available at www.vaers.hhs.gov or by telephone, 800-822-7967.

Information on how to file a Vaccine Injury Compensation Program claim is available at www.hrsa.gov/vaccinecompensation or by telephone, 800-338-2382. To file a claim for vaccine injury, contact the U.S. Court of Federal Claims, 717 Madison Place, N.W., Washington, D.C. 20005; telephone, 202-357-6400.

Additional information about the vaccines in this schedule, extent of available data, and contraindications for vaccination is also available at www.cdc.gov/vaccines or from the CDC-INFO Contact Center at 800-CDC-INFO (800-232-4636) in English and Spanish, 8:00 a.m. - 8:00 p.m. Eastern Time, Monday - Friday, excluding holidays.

Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

The recommendations in this schedule were approved by the Centers for Disease Control and Prevention's (CDC) Advisory Committee on Immunization Practices (ACIP), the American Academy of Family Physicians (AAFP), the American College of Physicians (ACP), American College of Obstetricians and Gynecologists (ACOG) and American College of Nurse-Midwives (ACNM).

Figure 2. Vaccines that might be indicated for adults based on medical and other indications¹

VACCINE ▼	INDICATION ►	Pregnancy	Immuno-compromising conditions (excluding human immunodeficiency virus [HIV]) ^{4,6,7,8,13}	HIV infection CD4+ T lymphocyte count ^{4,6,7,8,13} < 200 cells/μL ≥ 200 cells/μL	Men who have sex with men (MSM)	Kidney failure, end-stage renal disease, receipt of hemodialysis	Heart disease, chronic lung disease, chronic alcoholism	Asplenia (including elective splenectomy and persistent complement component deficiencies) ^{8,12}	Chronic liver disease	Diabetes	Healthcare personnel
Influenza ^{*2}		1 dose IIV annually			1 dose IIV or LAIV annually	1 dose IIV annually					1 dose IIV or LAIV annually
Tetanus, diphtheria, pertussis (Td/Tdap) ^{*3}	1 dose Tdap each pregnancy	Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yrs									
Varicella ^{*4}		Contraindicated			2 doses						
Human papillomavirus (HPV) Female ^{*5}		3 doses through age 26 yrs				3 doses through age 26 yrs					
Human papillomavirus (HPV) Male ^{*5}		3 doses through age 26 yrs				3 doses through age 21 yrs					
Zoster ⁶		Contraindicated				1 dose					
Measles, mumps, rubella (MMR) ^{*7}		Contraindicated			1 or 2 doses						
Pneumococcal 13-valent conjugate (PCV13) ^{*8}						1 dose					
Pneumococcal polysaccharide (PPSV23) ⁸						1 or 2 doses					
Meningococcal ^{*9}						1 or more doses					
Hepatitis A ^{*10}						2 doses					
Hepatitis B ^{*11}						3 doses					
Haemophilus influenzae type b (Hib) ^{*12}			post-HSCT recipients only				1 or 3 doses				

*Covered by the Vaccine Injury Compensation Program

For all persons in this category who meet the age requirements and who lack documentation of vaccination or have no evidence of previous infection; zoster vaccine recommended regardless of prior episode of zoster

Recommended if some other risk factor is present (e.g., on the basis of medical, occupational, lifestyle, or other indications)

No recommendation



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

These schedules indicate the recommended age groups and medical indications for which administration of currently licensed vaccines is commonly recommended for adults ages 19 years and older, as of February 1, 2015. For all vaccines being recommended on the Adult Immunization Schedule: a vaccine series does not need to be restarted, regardless of the time that has elapsed between doses. Licensed combination vaccines may be used whenever any components of the combination are indicated and when the vaccine's other components are not contraindicated. For detailed recommendations on all vaccines, including those used primarily for travelers or that are issued during the year, consult the manufacturers' package inserts and the complete statements from the Advisory Committee on Immunization Practices (www.cdc.gov/vaccines/hcp/acip-recs/index.html). Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

Footnotes—Recommended Immunization Schedule for Adults Aged 19 Years or Older: United States, 2015

1. Additional information

- Additional guidance for the use of the vaccines described in this supplement is available at www.cdc.gov/vaccines/hcp/acip-recs/index.html.
- Information on vaccination recommendations when vaccination status is unknown and other general immunization information can be found in the General Recommendations on Immunization at www.cdc.gov/mmwr/preview/mmwrhtml/r6002a1.htm.
- Information on travel vaccine requirements and recommendations (e.g., for hepatitis A and B, meningococcal, and other vaccines) is available at wwwnc.cdc.gov/travel/destinations/list.
- Additional information and resources regarding vaccination of pregnant women can be found at www.cdc.gov/vaccines/adults/rec-vac/pregnant.html.

2. Influenza vaccination

- Annual vaccination against influenza is recommended for all persons aged 6 months or older.
- Persons aged 6 months or older, including pregnant women and persons with hives-only allergy to eggs can receive the inactivated influenza vaccine (IIV). An age-appropriate IIV formulation should be used.
- Adults aged 18 years or older can receive the recombinant influenza vaccine (RIV) (FluBlok). RIV does not contain any egg protein and can be given to age-appropriate persons with egg allergy of any severity.
- Healthy, nonpregnant persons aged 2 to 49 years without high-risk medical conditions can receive either intranasally administered live, attenuated influenza vaccine (LAIV) (FluMist) or IIV.
- Health care personnel who care for severely immunocompromised persons who require care in a protected environment should receive IIV or RIV; health care personnel who receive LAIV should avoid providing care for severely immunosuppressed persons for 7 days after vaccination.
- The intramuscularly or intradermally administered IIV are options for adults aged 18 through 64 years.
- Adults aged 65 years or older can receive the standard-dose IIV or the high-dose IIV (Fluzone High-Dose).
- A list of currently available influenza vaccines can be found at www.cdc.gov/flu/protect/vaccine/vaccines.htm.

3. Tetanus, diphtheria, and acellular pertussis (Td/Tdap) vaccination

- Administer 1 dose of Tdap vaccine to pregnant women during each pregnancy (preferably during 27 to 36 weeks' gestation) regardless of interval since prior Td or Tdap vaccination.
- Persons aged 11 years or older who have not received Tdap vaccine or for whom vaccine status is unknown should receive a dose of Tdap followed by tetanus and diphtheria toxoids (Td) booster doses every 10 years thereafter. Tdap can be administered regardless of interval since the most recent tetanus or diphtheria-toxoid containing vaccine.
- Adults with an unknown or incomplete history of completing a 3-dose primary vaccination series with Td-containing vaccines should begin or complete a primary vaccination series including a Tdap dose.
- For unvaccinated adults, administer the first 2 doses at least 4 weeks apart and the third dose 6 to 12 months after the second.
- For incompletely vaccinated (i.e., less than 3 doses) adults, administer remaining doses.
- Refer to the ACIP statement for recommendations for administering Td/Tdap as prophylaxis in wound management (see footnote 1).

4. Varicella vaccination

- All adults without evidence of immunity to varicella (as defined below) should receive 2 doses of single-antigen varicella vaccine or a second dose if they have received only 1 dose.
- Vaccination should be emphasized for those who have close contact with persons at high risk for severe disease (e.g., health care personnel and family contacts of persons with immunocompromising conditions) or are at high risk for exposure or transmission (e.g., teachers; child care employees; residents and staff members of institutional settings, including correctional institutions; college students; military personnel; adolescents and adults living in households with children; nonpregnant women of childbearing age; and international travelers).
- Pregnant women should be assessed for evidence of varicella immunity. Women who do not have evidence of immunity should receive the first dose of varicella vaccine upon completion or termination of pregnancy and before discharge from the health care facility. The second dose should be administered 4 to 8 weeks after the first dose.
- Evidence of immunity to varicella in adults includes any of the following:
 - documentation of 2 doses of varicella vaccine at least 4 weeks apart;
 - U.S.-born before 1980, except health care personnel and pregnant women;
 - history of varicella based on diagnosis or verification of varicella disease by a health care provider;
 - history of herpes zoster based on diagnosis or verification of herpes zoster disease by a health care provider; or
 - laboratory evidence of immunity or laboratory confirmation of disease.

5. Human papillomavirus (HPV) vaccination

- Two vaccines are licensed for use in females, bivalent HPV vaccine (HPV2) and quadrivalent HPV vaccine (HPV4), and one HPV vaccine for use in males (HPV4).
- For females, either HPV4 or HPV2 is recommended in a 3-dose series for routine vaccination at age 11 or 12 years and for those aged 13 through 26 years, if not previously vaccinated.

- For males, HPV4 is recommended in a 3-dose series for routine vaccination at age 11 or 12 years and for those aged 13 through 21 years, if not previously vaccinated. Males aged 22 through 26 years may be vaccinated.
- HPV4 is recommended for men who have sex with men through age 26 years for those who did not get any or all doses when they were younger.
- Vaccination is recommended for immunocompromised persons (including those with HIV infection) through age 26 years for those who did not get any or all doses when they were younger.
- A complete series for either HPV4 or HPV2 consists of 3 doses. The second dose should be administered 4 to 8 weeks (minimum interval of 4 weeks) after the first dose; the third dose should be administered 24 weeks after the first dose and 16 weeks after the second dose (minimum interval of at least 12 weeks).
- HPV vaccines are not recommended for use in pregnant women. However, pregnancy testing is not needed before vaccination. If a woman is found to be pregnant after initiating the vaccination series, no intervention is needed; the remainder of the 3-dose series should be delayed until completion or termination of pregnancy.

6. Zoster vaccination

- A single dose of zoster vaccine is recommended for adults aged 60 years or older regardless of whether they report a prior episode of herpes zoster. Although the vaccine is licensed by the U.S. Food and Drug Administration for use among and can be administered to persons aged 50 years or older, ACIP recommends that vaccination begin at age 60 years.
- Persons aged 60 years or older with chronic medical conditions may be vaccinated unless their condition constitutes a contraindication, such as pregnancy or severe immunodeficiency.

7. Measles, mumps, rubella (MMR) vaccination

- Adults born before 1957 are generally considered immune to measles and mumps. All adults born in 1957 or later should have documentation of 1 or more doses of MMR vaccine unless they have a medical contraindication to the vaccine or laboratory evidence of immunity to each of the three diseases. Documentation of provider-diagnosed disease is not considered acceptable evidence of immunity for measles, mumps, or rubella.

Measles component:

- A routine second dose of MMR vaccine, administered a minimum of 28 days after the first dose, is recommended for adults who:
 - are students in postsecondary educational institutions,
 - work in a health care facility, or
 - plan to travel internationally.
- Persons who received inactivated (killed) measles vaccine or measles vaccine of unknown type during 1963–1967 should be revaccinated with 2 doses of MMR vaccine.

Mumps component:

- A routine second dose of MMR vaccine, administered a minimum of 28 days after the first dose, is recommended for adults who:
 - are students in a postsecondary educational institution,
 - work in a health care facility, or
 - plan to travel internationally.
- Persons vaccinated before 1979 with either killed mumps vaccine or mumps vaccine of unknown type who are at high risk for mumps infection (e.g., persons who are working in a health care facility) should be considered for revaccination with 2 doses of MMR vaccine.

Rubella component:

- For women of childbearing age, regardless of birth year, rubella immunity should be determined. If there is no evidence of immunity, women who are not pregnant should be vaccinated. Pregnant women who do not have evidence of immunity should receive MMR vaccine upon completion or termination of pregnancy and before discharge from the health care facility.

Health care personnel born before 1957:

- For unvaccinated health care personnel born before 1957 who lack laboratory evidence of measles, mumps, and/or rubella immunity or laboratory confirmation of disease, health care facilities should consider vaccinating personnel with 2 doses of MMR vaccine at the appropriate interval for measles and mumps or 1 dose of MMR vaccine for rubella.

8. Pneumococcal (13-valent pneumococcal conjugate vaccine [PCV13] and 23-valent pneumococcal polysaccharide vaccine [PPSV23]) vaccination

- General information
 - When indicated, only a single dose of PCV13 is recommended for adults.
 - No additional dose of PPSV23 is indicated for adults vaccinated with PPSV23 at or after age 65 years.
 - When both PCV13 and PPSV23 are indicated, PCV13 should be administered first; PCV13 and PPSV23 should not be administered during the same visit.
 - When indicated, PCV13 and PPSV23 should be administered to adults whose pneumococcal vaccination history is incomplete or unknown.
- Adults aged 65 years or older who
 - Have not received PCV13 or PPSV23: Administer PCV13 followed by PPSV23 in 6 to 12 months.
 - Have not received PCV13 but have received a dose of PPSV23 at age 65 years or older: Administer PCV13 at least 1 year after the dose of PPSV23 received at age 65 years or older.

8. Pneumococcal vaccination (continued)

- Have not received PCV13 but have received 1 or more doses of PPSV23 before age 65: Administer PCV13 at least 1 year after the most recent dose of PPSV23; administer a dose of PPSV23 6 to 12 months after PCV13, or as soon as possible if this time window has passed, and at least 5 years after the most recent dose of PPSV23.
- Have received PCV13 but not PPSV23 before age 65 years: Administer PPSV23 6 to 12 months after PCV13 or as soon as possible if this time window has passed.
- Have received PCV13 and 1 or more doses of PPSV23 before age 65 years: Administer PPSV23 6 to 12 months after PCV13, or as soon as possible if this time window has passed, and at least 5 years after the most recent dose of PPSV23.
- Adults aged 19 through 64 years with immunocompromising conditions or anatomical or functional asplenia (defined below) who
 - Have not received PCV13 or PPSV23: Administer PCV13 followed by PPSV23 at least 8 weeks after PCV13; administer a second dose of PPSV23 at least 5 years after the first dose of PPSV23.
 - Have not received PCV13 but have received 1 dose of PPSV23: Administer PCV13 at least 1 year after the PPSV23; administer a second dose of PPSV23 at least 8 weeks after PCV13 and at least 5 years after the first dose of PPSV23.
 - Have not received PCV13 but have received 2 doses of PPSV23: Administer PCV13 at least 1 year after the most recent dose of PPSV23.
 - Have received PCV13 but not PPSV23: Administer PPSV23 at least 8 weeks after PCV13; administer a second dose of PPSV23 at least 5 years after the first dose of PPSV23.
 - Have received PCV13 and 1 dose of PPSV23: Administer a second dose of PPSV23 at least 5 years after the first dose of PPSV23.
- Adults aged 19 through 64 years with cerebrospinal fluid leaks or cochlear implants: Administer PCV13 followed by PPSV23 at least 8 weeks after PCV13.
- Adults aged 19 through 64 years with chronic heart disease (including congestive heart failure and cardiomyopathies, excluding hypertension), chronic lung disease (including chronic obstructive lung disease, emphysema, and asthma), chronic liver disease (including cirrhosis), alcoholism, or diabetes mellitus: Administer PPSV23.
- Adults aged 19 through 64 years who smoke cigarettes or reside in nursing home or long-term care facilities: Administer PPSV23.
- Routine pneumococcal vaccination is not recommended for American Indian/Alaska Native or other adults unless they have the indications as above; however, public health authorities may consider recommending the use of pneumococcal vaccines for American Indians/Alaska Natives or other adults who live in areas with increased risk for invasive pneumococcal disease.
- Immunocompromising conditions that are indications for pneumococcal vaccination are: Congenital or acquired immunodeficiency (including B- or T-lymphocyte deficiency, complement deficiencies, and phagocytic disorders excluding chronic granulomatous disease), HIV infection, chronic renal failure, nephrotic syndrome, leukemia, lymphoma, Hodgkin disease, generalized malignancy, multiple myeloma, solid organ transplant, and iatrogenic immunosuppression (including long-term systemic corticosteroids and radiation therapy).
- Anatomical or functional asplenia that are indications for pneumococcal vaccination are: Sickle cell disease and other hemoglobinopathies, congenital or acquired asplenia, splenic dysfunction, and splenectomy. Administer pneumococcal vaccines at least 2 weeks before immunosuppressive therapy or an elective splenectomy, and as soon as possible to adults who are newly diagnosed with asymptomatic or symptomatic HIV infection.

9. Meningococcal vaccination

- Administer 2 doses of quadrivalent meningococcal conjugate vaccine (MenACWY [Menactra, Menveo]) at least 2 months apart to adults of all ages with anatomical or functional asplenia or persistent complement component deficiencies. HIV infection is not an indication for routine vaccination with MenACWY. If an HIV-infected person of any age is vaccinated, 2 doses of MenACWY should be administered at least 2 months apart.
- Administer a single dose of meningococcal vaccine to microbiologists routinely exposed to isolates of *Neisseria meningitidis*, military recruits, persons at risk during an outbreak attributable to a vaccine serogroup, and persons who travel to or live in countries in which meningococcal disease is hyperendemic or epidemic.
- First-year college students up through age 21 years who are living in residence halls should be vaccinated if they have not received a dose on or after their 16th birthday.
- MenACWY is preferred for adults with any of the preceding indications who are aged 55 years or younger as well as for adults aged 56 years or older who a) were vaccinated previously with MenACWY and are recommended for revaccination, or b) for whom multiple doses are anticipated. Meningococcal polysaccharide vaccine (MPSV4 [Menomune]) is preferred for adults aged 56 years or older who have not received MenACWY previously and who require a single dose only (e.g., travelers).
- Revaccination with MenACWY every 5 years is recommended for adults previously vaccinated with MenACWY or MPSV4 who remain at increased risk for infection (e.g., adults with anatomical or functional asplenia, persistent complement component deficiencies, or microbiologists).

10. Hepatitis A vaccination

- Vaccinate any person seeking protection from hepatitis A virus (HAV) infection and persons with any of the following indications:
 - men who have sex with men and persons who use injection or noninjection illicit drugs;
 - persons working with HAV-infected primates or with HAV in a research laboratory setting;
 - persons with chronic liver disease and persons who receive clotting factor concentrates;
 - persons traveling to or working in countries that have high or intermediate endemicity of hepatitis A; and
 - unvaccinated 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. (See footnote 1 for more information on travel recommendations.) The first dose of the 2-dose hepatitis A vaccine series should be administered as soon as adoption is planned, ideally 2 or more weeks before the arrival of the adoptee.
- Single-antigen vaccine formulations should be administered in a 2-dose schedule at either 0 and 6 to 12 months (Havrix), or 0 and 6 to 18 months (Vaqta). If the combined hepatitis A and hepatitis B vaccine (Twinrix) is used, administer 3 doses at 0, 1, and 6 months; alternatively, a 4-dose schedule may be used, administered on days 0, 7, and 21 to 30 followed by a booster dose at month 12.

11. Hepatitis B vaccination

- Vaccinate persons with any of the following indications and any person seeking protection from hepatitis B virus (HBV) infection:
 - sexually active persons who are not in a long-term, mutually monogamous relationship (e.g., persons with more than 1 sex partner during the previous 6 months); persons seeking evaluation or treatment for a sexually transmitted disease (STD); current or recent injection drug users; and men who have sex with men;
 - health care personnel and public safety workers who are potentially exposed to blood or other infectious body fluids;
 - persons with diabetes who are younger than age 60 years as soon as feasible after diagnosis; persons with diabetes who are age 60 years or older at the discretion of the treating clinician based on the likelihood of acquiring HBV infection, including the risk posed by an increased need for assisted blood glucose monitoring in long-term care facilities, the likelihood of experiencing chronic sequelae if infected with HBV, and the likelihood of immune response to vaccination;
 - persons with end-stage renal disease, including patients receiving hemodialysis, persons with HIV infection, and persons with chronic liver disease;
 - household contacts and sex partners of hepatitis B surface antigen–positive persons, clients and staff members of institutions for persons with developmental disabilities, and international travelers to countries with high or intermediate prevalence of chronic HBV infection; and
 - all adults in the following settings: STD treatment facilities, HIV testing and treatment facilities, facilities providing drug abuse treatment and prevention services, health care settings targeting services to injection drug users or men who have sex with men, correctional facilities, end-stage renal disease programs and facilities for chronic hemodialysis patients, and institutions and nonresidential day care facilities for persons with developmental disabilities.
- Administer missing doses to complete a 3-dose series of hepatitis B vaccine to those persons not vaccinated or not completely vaccinated. The second dose should be administered 1 month after the first dose; the third dose should be given at least 2 months after the second dose (and at least 4 months after the first dose). If the combined hepatitis A and hepatitis B vaccine (Twinrix) is used, give 3 doses at 0, 1, and 6 months; alternatively, a 4-dose Twinrix schedule, administered on days 0, 7, and 21 to 30 followed by a booster dose at month 12 may be used.
- Adult patients receiving hemodialysis or with other immunocompromising conditions should receive 1 dose of 40 mcg/mL (Recombivax HB) administered on a 3-dose schedule at 0, 1, and 6 months or 2 doses of 20 mcg/mL (Engerix-B) administered simultaneously on a 4-dose schedule at 0, 1, 2, and 6 months.

12. *Haemophilus influenzae* type b (Hib) vaccination

- One dose of Hib vaccine should be administered to persons who have anatomical or functional asplenia or sickle cell disease or are undergoing elective splenectomy if they have not previously received Hib vaccine. Hib vaccination 14 or more days before splenectomy is suggested.
- Recipients of a hematopoietic stem cell transplant (HSCT) should be vaccinated with a 3-dose regimen 6 to 12 months after a successful transplant, regardless of vaccination history; at least 4 weeks should separate doses.
- Hib vaccine is not recommended for adults with HIV infection since their risk for Hib infection is low.

13. Immunocompromising conditions

- Inactivated vaccines generally are acceptable (e.g., pneumococcal, meningococcal, and inactivated influenza vaccine) and live vaccines generally are avoided in persons with immune deficiencies or immunocompromising conditions. Information on specific conditions is available at www.cdc.gov/vaccines/hcp/acip-recs/index.html.

TABLE. Contraindications and precautions to commonly used vaccines in adults ^{1†}

Vaccine	Contraindications	Precautions
Influenza, inactivated (IIV) ²	Severe allergic reaction (e.g., anaphylaxis) after previous dose of any influenza vaccine; or to a vaccine component, including egg protein	- Moderate or severe acute illness with or without fever - History of Guillain-Barré Syndrome within 6 weeks of previous influenza vaccination - Adults who experience only hives with exposure to eggs may receive RIV or, with additional safety precautions, IIV²
Influenza, recombinant (RIV)	Severe allergic reaction (e.g., anaphylaxis) after previous dose of RIV or to a vaccine component. RIV does not contain any egg protein²	- Moderate or severe acute illness with or without fever - History of Guillain-Barré Syndrome within 6 weeks of previous influenza vaccination
Influenza, live attenuated (LAIV) ^{2,3}	- Severe allergic reaction (e.g., anaphylaxis) to any component of the vaccine, or to a previous dose of any influenza vaccine - In addition, ACIP recommends that LAIV not be used in the following populations: - pregnant women - immunosuppressed adults - adults with egg allergy of any severity - adults who have taken influenza antiviral medications (amantadine, rimantadine, zanamivir, or oseltamivir) within the previous 48 hours; avoid use of these antiviral drugs for 14 days after vaccination	- Moderate or severe acute illness with or without fever. - History of Guillain-Barré Syndrome within 6 weeks of previous influenza vaccination - Asthma in persons aged 5 years and older - Other chronic medical conditions, e.g., other chronic lung diseases, chronic cardiovascular disease (excluding isolated hypertension), diabetes, chronic renal or hepatic disease, hematologic disease, neurologic disease, and metabolic disorders
Tetanus, diphtheria, pertussis (Tdap); tetanus, diphtheria (Td)	- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component - For pertussis-containing vaccines: encephalopathy (e.g., coma, decreased level of consciousness, or prolonged seizures) not attributable to another identifiable cause within 7 days of administration of a previous dose of Tdap, diphtheria and tetanus toxoids and pertussis (DTP), or diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine	- Moderate or severe acute illness with or without fever - Guillain-Barré Syndrome within 6 weeks after a previous dose of tetanus toxoid-containing vaccine - History of Arthus-type hypersensitivity reactions after a previous dose of tetanus or diphtheria toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus toxoid-containing vaccine - For pertussis-containing vaccines: progressive or unstable neurologic disorder, uncontrolled seizures, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized
Varicella ³	- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component - Known severe immunodeficiency (e.g., from hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, or long-term immunosuppressive therapy,⁴ or patients with human immunodeficiency virus [HIV] infection who are severely immunocompromised) - Pregnancy	- Recent (within 11 months) receipt of antibody-containing blood product (specific interval depends on product)⁵ - Moderate or severe acute illness with or without fever - Receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination; avoid use of these antiviral drugs for 14 days after vaccination
Human papillomavirus (HPV)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	- Moderate or severe acute illness with or without fever - Pregnancy
Zoster ³	- Severe allergic reaction (e.g., anaphylaxis) to a vaccine component - Known severe immunodeficiency (e.g., from hematologic and solid tumors, receipt of chemotherapy, or long-term immunosuppressive therapy,⁴ or patients with HIV infection who are severely immunocompromised) - Pregnancy	- Moderate or severe acute illness with or without fever - Receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination; avoid use of these antiviral drugs for 14 days after vaccination
Measles, mumps, rubella (MMR) ³	- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component - Known severe immunodeficiency (e.g., from hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, or long-term immunosuppressive therapy,⁴ or patients with HIV infection who are severely immunocompromised) - Pregnancy	- Moderate or severe acute illness with or without fever - Recent (within 11 months) receipt of antibody-containing blood product (specific interval depends on product)⁵ - History of thrombocytopenia or thrombocytopenic purpura - Need for tuberculin skin testing⁶
Pneumococcal conjugate (PCV13)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component, including to any vaccine containing diphtheria toxoid	Moderate or severe acute illness with or without fever
Pneumococcal polysaccharide (PPSV23)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	Moderate or severe acute illness with or without fever
Meningococcal, conjugate (MenACWY); meningococcal, polysaccharide (MPSV4)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	Moderate or severe acute illness with or without fever
Hepatitis A	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	Moderate or severe acute illness with or without fever
Hepatitis B	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	Moderate or severe acute illness with or without fever
<i>Haemophilus influenzae</i> Type b (Hib)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	Moderate or severe acute illness with or without fever

1. Vaccine package inserts and the full ACIP recommendations for these vaccines should be consulted for additional information on vaccine-related contraindications and precautions and for more information on vaccine excipients. Events or conditions listed as precautions should be reviewed carefully. Benefits of and risks for administering a specific vaccine to a person under these circumstances should be considered. If the risk from the vaccine is believed to outweigh the benefit, the vaccine should not be administered. If the benefit of vaccination is believed to outweigh the risk, the vaccine should be administered. A contraindication is a condition in a recipient that increases the chance of a serious adverse reaction. Therefore, a vaccine should not be administered when a contraindication is present.

2. For more information on use of influenza vaccines among persons with egg allergies and a complete list of conditions that CDC considers to be reasons to avoid receiving LAIV, see CDC. Prevention and control of seasonal influenza with vaccines: recommendations of the Advisory Committee on Immunization Practices (ACIP) — United States, 2014–15 Influenza Season. *MMWR* 2014;63(32):691–97.

3. LAIV, MMR, varicella, or zoster vaccines can be administered on the same day. If not administered on the same day, live vaccines should be separated by at least 28 days.

4. Immunosuppressive steroid dose is considered to be ≥2 weeks of daily receipt of 20 mg of prednisone or the equivalent. Vaccination should be deferred for at least 1 month after discontinuation of such therapy. Providers should consult ACIP recommendations for complete information on the use of specific live vaccines among persons on immune-suppressing medications or with immune suppression because of other reasons.

5. Vaccine should be deferred for the appropriate interval if replacement immune globulin products are being administered. See CDC. General recommendations on immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR* 2011;60(No. RR-2). Available at www.cdc.gov/vaccines/pubs/pinkbook/index.html.

6. Measles vaccination might suppress tuberculin reactivity temporarily. Measles-containing vaccine may be administered on the same day as tuberculin skin testing. If testing cannot be performed until after the day of MMR vaccination, the test should be postponed for at least 4 weeks after the vaccination. If an urgent need exists to skin test, do so with the understanding that reactivity might be reduced by the vaccine.

* Adapted from CDC. Table 6. Contraindications and precautions to commonly used vaccines. General recommendations on immunization: recommendations of the Advisory Committee on Immunization Practices. *MMWR* 2011;60(No. RR-2):40–41 and from Atkinson W, Wolfe S, Hamborsky J, eds. Appendix A. Epidemiology and prevention of vaccine preventable diseases. 12th ed. Washington, DC: Public Health Foundation, 2011. Available at www.cdc.gov/vaccines/pubs/pinkbook/index.html.

† Regarding latex allergy, consult the package insert for any vaccine administered.



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