

# STANDING ORDERS FOR Administering Pneumococcal Vaccines (PPSV23 and PCV13) to Adults

## Purpose

To reduce morbidity and mortality from pneumococcal disease by vaccinating all adults who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

## Policy

Where allowed by state law, standing orders enable eligible nurses and other healthcare professionals (e.g., pharmacists) to assess the need for vaccination and to vaccinate adults who meet any of the criteria below.

## Procedure

**1 Assess Adults for Need of Vaccination** against *Streptococcus pneumoniae* (pneumococcus) infection according to the following criteria:

### ***Routine Pneumococcal Vaccination***

The information that follows is adapted from ACIP recommendations on pneumococcal vaccines (*MMWR*, Nov. 22, 2019) available at [www.cdc.gov/mmwr/volumes/68/wr/pdfs/mm6846a5-H.pdf](http://www.cdc.gov/mmwr/volumes/68/wr/pdfs/mm6846a5-H.pdf).

- Pneumococcal polysaccharide vaccine (PPSV23, Pneumovax) is recommended for all adults age 65 years and older.
- Pneumococcal conjugate vaccine (PCV13, Prevnar) is no longer routinely recommended for all adults 65 years and older. Instead, shared clinical decision-making (SCDM) for PCV13 use is recommended for people age 65 years and older. (See Table 1 on page 2 for PCV13 risk-based recommendations).

**CDC guidance for shared clinical decision-making between patients and providers.** Considerations for SCDM may include the individual patient's risk for exposure to PCV13 serotypes and the risk for pneumococcal disease for that person as a result of underlying medical conditions (For details, see gray box at right).

**Scheduling when PCV13 is to be administered.** If a decision to administer PCV13 is made, it should be administered before PPSV23 (see information Table 1, footnotes 2 and 3). PCV13 and PPSV23 should not be administered at the same visit. The recommended intervals between pneumococcal vaccines is 1 year for adults age 65 years and older without an immunocompromising condition, CSF leak, or cochlear implant, regardless of the order in which the vaccines were received. (For adults with immunocompromising conditions, CSF leak, or cochlear implant, see risk-based recommendations in the next section. See Table 1.)

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### **Consideration for Shared Clinical Decision-Making Regarding Use of 13-valent PCV13 in Adults Age 65 Years and Older**

PCV13 is a safe and effective vaccine for older adults. The risk for PCV13-type disease among adults age 65 years and older is much lower than it was before the pediatric program was implemented, as a result of indirect PCV13 effects (by preventing carriage and, thereby, transmission of PCV13-type strains). The remaining risk is a function of each individual patient's risk for exposure to PCV13 serotypes and the influence of underlying medical conditions on the patient's risk for developing pneumococcal disease if exposure occurs.

The following adults ages 65 years and older are potentially at increased risk for exposure to PCV13 serotypes and might attain higher than average benefit from PCV13 vaccination, and providers/practices caring for many patients in these groups may consider regularly offering PCV13 to their patients age 65 years and older who have not previously received PCV13.

- Persons residing in nursing homes or other long-term care facilities
- Persons residing in settings with low pediatric PCV13 uptake
- Persons traveling to settings with no pediatric PCV13 program

Incidence of PCV13-type invasive pneumococcal disease and pneumonia increases with increasing age and is higher among persons with chronic heart, lung, or liver disease, diabetes, or alcoholism, and those who smoke cigarettes or who have more than one chronic medical condition. Although indirect effects from pediatric PCV13 use were documented for these groups of adults and were comparable to those observed among healthy adults, the residual PCV13-type disease burden remains higher in these groups. Providers/practices caring for patients with these medical conditions may consider offering PCV13 to such patients who are age 65 years and older and who have not previously received PCV13.

SOURCE: [www.cdc.gov/mmwr/volumes/68/wr/pdfs/mm6846a5-H.pdf](http://www.cdc.gov/mmwr/volumes/68/wr/pdfs/mm6846a5-H.pdf)

### Risk-Based Pneumococcal Vaccination

Use the risk-based vaccination guidance described below in Table 1 for people age 19 years or older with an underlying medical condition or other risk factor.

**Table 1. Risk-based vaccination for adults age 19 years and older**

CATEGORY OF UNDERLYING MEDICAL CONDITION OR OTHER RISK FACTOR		RECOMMENDED VACCINES ARE MARKED "X" BELOW.		
		PCV13: 1 dose <sup>1</sup>	PPSV23: 1 dose <sup>2</sup>	PPSV23 booster <sup>2,3</sup>
Non-immunocompromising	Chronic heart disease <sup>4</sup> , chronic lung disease <sup>5</sup>		x	
	Diabetes mellitus		x	
	Chronic liver disease, cirrhosis		x	
	Cigarette smoking		x	
	Alcoholism		x	
	Cochlear implant, cerebrospinal fluid (CSF) leak	x	x	
Immunocompromising	Sickle cell disease, other hemoglobinopathy	x	x	x
	Congenital or acquired asplenia	x	x	x
	Congenital or acquired immunodeficiency <sup>6</sup> HIV	x	x	x
	Chronic renal failure, nephrotic syndrome	x	x	x
	Leukemia, lymphoma	x	x	x
	Generalized malignancy, Hodgkin disease	x	x	x
	Iatrogenic immunosuppression <sup>7</sup>	x	x	x
	Solid organ transplant, multiple myeloma	x	x	x

**FOOTNOTES**

1. PCV13 is recommended as a one-time dose among persons in a risk group not previously vaccinated with PCV13.
2. Administer PPSV23 unless PCV13 is also needed. In that case, give PCV13 first followed by PPSV23 at least 8 weeks later. If PPSV23 was previously given, administer PCV13 at least 1 year after PPSV23.
3. Give a second PPSV 23 at least 5 years after the first PPSV23 and at least 8 weeks after PCV13. However, for adults age 65 years and older, give only one dose of PPSV23.
4. Chronic heart disease includes congestive heart failure and cardiomyopathies; excludes hypertension.
5. Chronic lung disease includes chronic obstructive pulmonary disease, emphysema, and asthma.
6. Congenital or acquired immunodeficiency includes B- (humoral) or T-lymphocyte deficiency, complement deficiencies (particularly C1, C2, C3, and C4 deficiencies), and phagocytic disorders (excluding chronic granulomatous disease).
7. Iatrogenic immunosuppression includes diseases requiring treatment with immunosuppressive drugs, including long-term systemic corticosteroids, and radiation therapy.

## 2 Screen for Contraindications and Precautions

### Contraindications

Do not give pneumococcal vaccine (PPSV23 or PCV13) to a person who has experienced a serious systemic or anaphylactic reaction to a prior dose of the vaccine or to any of its components. For a list of vaccine components, refer to the manufacturer’s package insert ([www.immunize.org/fda](http://www.immunize.org/fda)) or go to [www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf](http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf).

### Precautions

Moderate or severe acute illness with or without fever

## 3 Provide Vaccine Information Statements

Provide all patients with a copy of the most current federal Vaccine Information Statement (VIS). Provide non-English speaking patients with a copy of the VIS in their native language, if one is available and desired; these can be found at [www.immunize.org/vis](http://www.immunize.org/vis). (For information about how to document that the VIS was given, see section 6 titled “Document Vaccination.”)

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#### 4 Prepare to Administer Vaccine

PPSV23 may be administered either intramuscularly (IM) or subcutaneously (Subcut). PCV13 must be given IM. **For vaccine that is to be administered IM**, choose the needle gauge, needle length, and injection site according to the following chart:

GENDER AND WEIGHT OF PATIENT	NEEDLE GAUGE	NEEDLE LENGTH	INJECTION SITE
Female or male less than 130 lbs	22–25	5/8"*-1"	Deltoid muscle of arm
Female or male 130–152 lbs	22–25	1"	Deltoid muscle of arm
Female 153–200 lbs	22–25	1–1½"	Deltoid muscle of arm
Male 153–260 lbs	22–25	1–1½"	Deltoid muscle of arm
Female 200+ lbs	22–25	1½"	Deltoid muscle of arm
Male 260+ lbs	22–25	1½"	Deltoid muscle of arm

\* A 5/8" needle may be used in patients weighing less than 130 lbs (<60 kg) for IM injection in the deltoid muscle only if the skin is stretched tight, the subcutaneous tissue is not bunched, and the injection is made at a 90° angle to the skin.

If you prefer Subcut injection of PPSV23, choose a 23–25 gauge, 5/8" needle for injection into the fatty tissue overlying the triceps muscle.

#### 5 Administer PPSV23 or PCV13, 0.5 mL, according to the following dosing information and schedule:

- PPSV23 may be administered either IM or Subcut.
- PCV13 must be administered by the IM route.

**Table 2. Routine vaccination for all adults ages 65 years and older**

AGE OF PATIENT	VACCINE(S) INDICATED (SEE TABLE ON PAGE 1)	HISTORY OF PRIOR VACCINATION	SCHEDULE FOR ADMINISTRATION OF PCV13 AND PPSV23
65 yrs or older	PPSV23 PCV13 can be considered for a 1-time dose based on shared clinical decision-making (SCDM)*	None or unknown	Administer PPSV23. If PCV13 is also needed based on SCDM, give PCV13 first followed by PPSV23 1 year later.
		PPSV23 when younger than age 65 years; 0 or unknown PCV13	Administer another PPSV23 after at least 5 years after previous PPSV23. If PCV13 is also needed based on SCDM, administer PCV13 first, followed by PPSV23 1 year later.
		PPSV23 when younger than age 65 years; PCV13	Administer another PPSV23 at least 5 years after previous dose of PPSV23 and at least 1 year after previous dose of PCV13.
		PPSV23 when age 65 years or older; 0 or unknown PCV13	Administer PCV13, if needed based on SCDM, at least 1 year after PPSV23.
		0 or unknown PPSV23; PCV13	Administer PPSV23 at least 1 year after PCV13.

\* See gray box on page 1 for details from ACIP recommendations on considerations for SCDM.

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**Table 3. Risk-based vaccination schedule for adults ages 19 years and older**

AGE OF PATIENT	VACCINE(S) INDICATED (SEE PAGE 1)	HISTORY OF PRIOR VACCINATION	SCHEDULE FOR ADMINISTRATION OF PCV13 AND PPSV23
19–64 years	<i>For medical conditions and other risk factors for which only PPSV23 is indicated (see Table 1)</i>		
	1 dose PPSV23	None or unknown	Administer PPSV23.
	<i>For non-immunocompromising medical conditions for which both PCV13 and PPSV23 are indicated (see Table 1)</i>		
	1 dose PCV13 and 1 dose PPSV23	0 or unknown	Administer PCV13 followed in 8 weeks by PPSV23.
		0 or unknown PPSV23; 1 dose PCV13	Administer PPSV23 at least 8 weeks after PCV13.
		1 dose PPSV23; 0 or unknown PCV13	Administer PCV13 at least 1 year after PPSV23.
	<i>For immunocompromising medical conditions for which both PCV13 and PPSV23 are indicated (see Table 1)</i>		
	1 dose PCV13 and 2 doses PPSV23	0 or unknown	Administer PCV13 followed in 8 weeks by PPSV23 #1. Administer PPSV23 #2 at least 5 years after PPSV23 #1.
		1 dose PPSV23; 0 or unknown PCV13	Administer PCV13 at least 1 year after PPSV23 #1. Administer PPSV23 #2 at least 5 years after PPSV23 #1 and at least 8 weeks after PCV13.
		0 or unknown PPSV23; 1 dose PCV13	Administer PPSV23 #1 at least 8 weeks after PCV13. Administer PPSV23 #2 at least 5 years after PPSV23 #1.
		1 dose PPSV23; 1 dose PCV13	Administer PPSV23 #2 at least 5 years after PPSV23 #1 and at least 8 weeks after PCV13.
2 doses PPSV23; 0 or unknown PCV13		Administer PCV13 at least 1 year after PPSV23 #2.	
65 years and older	<i>For medical conditions and other risk factors for which only PPSV23 is indicated (see Table 1)</i>		
	1 dose PPSV23	None or unknown	Administer PPSV23. If PCV13 is also needed based on SCDM, administer PCV13 first, followed by PPSV23 at least 1 year later (see gray box on page 1).
		1 dose PPSV23 given before age 65	Administer PPSV23 at least 5 years after previous PPSV23. If PCV13 is needed based on SCDM, administer PCV13 first at least 1 year after previous PPSV23; give PPSV23 at least 1 year after PCV13 (see gray box on page 1).
	<i>For non-immunocompromising medical conditions for which both PCV13 and PPSV23 are indicated (see Table 1)</i>		
	1 dose PPSV23 and 1 dose PCV13	0 or unknown PPSV23; 0 or unknown PCV13	Administer PCV13 followed in at least 8 weeks by PPSV23.
		1 PPSV23 before age 65; 0 or unknown PCV13	Administer PCV13 at least 1 year after previous PPSV23; administer PPSV23 #2 at least 8 weeks after PCV13 and 5 years after previous PPSV23.
		0 or unknown PPSV23; 1 dose PCV13	Administer PPSV23 at least 8 weeks after PCV13.
		1 dose PPSV23 at/after 65; 0 or unknown PCV13	Administer PCV13 at least 1 year after PPSV23.
	<i>For immunocompromising medical conditions for which both PCV13 and PPSV23 are indicated (see Table 1)</i>		
	1 dose PPSV23 and 1 dose PCV13	0 or unknown PPSV23; 0 or unknown PCV13	Administer PCV13 followed in 8 weeks by PPSV23.
		0 or unknown PPSV23; 1 dose PCV13	Administer PPSV23 at least 8 weeks after PCV13.
1 or 2 doses PPSV23 before age 65; 0 or unknown PCV13		Administer PCV13 at least 1 year after prior PPSV23; administer PPSV23 at least 5 years after prior PPSV23 and at least 8 weeks after PCV13.	
1 dose PPSV23 at/after 65; 0 or unknown PCV13		Administer PCV13 at least 1 year after PPSV23.	

### 6 Document Vaccination

Document each patient’s vaccine administration information and follow up in the following places:

**Medical record:** Document the date the vaccine was administered, the manufacturer and lot number, the vaccination site and route, and the name and title of the person administering the vaccine. You must also document, in the patient’s medical record or office log, the publication date of the VIS and the date it was given to the patient. Note that medical records/charts should be documented and retained in accordance with applicable state laws and regulations. If vaccine was not administered, record the reason(s) for non-receipt of the vaccine (e.g., medical contraindication, patient refusal). Discuss the need for vaccine with the patient at the next visit.

**Personal immunization record card:** Record the date of vaccination and the name/location of the administering clinic.

**Immunization Information System (IIS) or “registry”:** Report the vaccination to the appropriate state/local IIS, if available.

### 7 Be Prepared to Manage Medical Emergencies

Be prepared for management of a medical emergency related to the administration of vaccine by having a written emergency medical protocol available, as well as equipment and medications. For IAC’s “Medical Management of Vaccine Reactions in Adults in a Community Setting,” go to [www.immunize.org/catg.d/p3082.pdf](http://www.immunize.org/catg.d/p3082.pdf). To prevent syncope, vaccinate patients while they are seated or lying down and consider observing them for 15 minutes after receipt of the vaccine.

### 8 Report All Adverse Events to VAERS

Report all adverse events following the administration of pneumococcal vaccine to the federal Vaccine Adverse Event Reporting System (VAERS) at [www.vaers.hhs.gov](http://www.vaers.hhs.gov). To submit a VAERS report online (preferred) or to download a writable PDF form, go to <https://www.vaers.hhs.gov/reportevent.html>. Further assistance is available at (800) 822-7967.

## Standing Orders Authorization

<p>This policy and procedure shall remain in effect for all patients of the _____  <small style="margin-left: 400px;">NAME OF PRACTICE OR CLINIC</small></p> <p>until rescinded or until _____ .  <small style="margin-left: 100px;">DATE</small></p> <p>Medical Director’s signature _____ Signature date _____ Effective date _____</p>
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