

# Recommendations for Pneumococcal Vaccine use among Immunocompromised Adults

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# Conclusions from the Pneumococcal Working Group

- ❑ Extremely high burden of disease among immunocompromised adults
- ❑ Indirect effects of PCV13 use in children unlikely to eliminate PCV13 serotypes from immunocompromised adults
- ❑ Benefits of PCV13 use in this group outweigh the harms
- ❑ PCV13 alone may not provide adequate coverage of serotypes causing disease
- ❑ Combined regimen of PCV13 and PPSV23 likely better than either vaccine alone

**WG Decision:** Benefits likely outweigh harms and both PCV13 and PPSV23 should be recommended for adults with immunocompromising conditions

# Categories of immunocompromised adults to consider for recommendation language

## ❑ **Vaccine-naïve:**

- Adults 19 years of age or older with immunocompromising conditions who have not previously received PPSV23

## ❑ **PPSV-immunized:**

- Adults 19 years of age or older with immunocompromising conditions who received 1 or more doses of PPSV for any indication

## Proposed indications for PCV13

- Adults 19 years or older with
  - Functional or anatomic asplenia
  - Immunocompromising conditions
    - Congenital or acquired immunodeficiencies
    - HIV infection
    - Chronic renal failure or nephrotic syndrome
    - Leukemias, lymphomas, Hodgkin disease
    - Generalized malignancy
    - Diseases requiring treatment with immunosuppressive drugs, including long-term systemic corticosteroids or radiation therapy
    - Solid organ transplantation
    - Multiple myeloma
  - CSF leaks and cochlear implants

# Recommendation for PCV13 and PPSV23

## ❑ **Vaccine naïve adults:**

- PCV13 dose is recommended to be given before PPSV23, whenever possible
- PPSV23 should be given **at least 8 weeks** after a dose of PCV13
- Recommendations for 2<sup>nd</sup> dose of PPSV and a dose at age 65 years or older remain unchanged

## ❑ **PPSV23-immunized adults**

- A dose of PCV13 is recommended to be given to adults with immunocompromising conditions who received 1 or more doses of PPSV23 **1 or more years** after the last PPSV23 dose
- Total number and interval between PPSV23 doses unchanged from current recommendations

## Prevention of pneumococcal disease among adults with immunocompromising conditions

### Recommendation for PPSV23-naïve adults

We recommend that adults 19 years of age or older with immunocompromising conditions, functional or anatomic asplenia, CSF leaks, or cochlear implants, and who have not previously received PCV13 or PPSV23 receive a dose of PCV13 first followed by currently recommended doses of PPSV23

PCV – PPSV – PPSV + PPSV (@ 65 years or later)  
≥8 weeks      ≥5 years

## ACIP vote

### Recommendation for PPSV-naïve adults

On the basis of the presented information, the WG proposes the following recommendation for a vote

#### **Proposed language:**

*“We recommend that adults 19 years of age or older with immunocompromising conditions, functional or anatomic asplenia, CSF leaks or cochlear implants, and who have not previously received PCV13 or PPSV23 receive a single dose of PCV13 followed by a dose of PPSV23 at least 8 weeks later.”*



## **Recommendation for PPSV23 following PCV13**

Current recommendations for PPSV23 for adults 19 years of age or older with immunocompromising conditions remain unchanged

*“A second dose of PPSV23 is recommended 5 years after the first dose for persons aged 19–64 years with functional or anatomic asplenia and for persons with immunocompromising conditions.”*

*“Those who received PPSV23 before age 65 years for any indication should receive another dose of the vaccine at age 65 years or later if at least 5 years have passed since their previous dose. Those who receive PPSV23 at or after age 65 years should receive only a single dose of PPSV23.”*



# Prevention of pneumococcal disease among adults with immunocompromising conditions

Integrating proposed PCV13 recommendation for adults previously vaccinated with PPSV23

Adults 19 years of age or older with immunocompromising conditions, functional or anatomic asplenia, CSF leaks, or cochlear implants, and who have previously received one or more doses of PPSV23 are recommended to receive a dose of PCV13 one or more years following the most recent dose of PPSV23

1)  $\overbrace{\text{PPSV} - \text{PCV} - \text{PPSV}}^{\geq 5 \text{ years}}$  + **PPSV** (@ 65 years or later)  
 $\underbrace{\hspace{1.5em}}_{\geq 1 \text{ year}} \quad \underbrace{\hspace{1.5em}}_{\geq 8 \text{ weeks}}$

2)  $\underbrace{\text{PPSV} - \text{PPSV}}_{\geq 5 \text{ years}} - \underbrace{\text{PCV}}_{\geq 1 \text{ year}}$  + **PPSV** (@ 65 years or later)

3)  $\underbrace{\text{PPSV} - \text{PPSV}}_{\geq 5 \text{ years}}$  +  $\text{PPSV} \overbrace{(\text{@ } 65 \text{ +}) - \text{PCV}}^{\geq 1 \text{ year}}$

## ACIP vote

Recommendation for adults previously vaccinated with PPSV23

On the basis of the presented information, the work group proposes the following recommendation for a vote

### Proposed language:

*“We recommend that adults 19 years of age or older with immunocompromising conditions, functional or anatomic asplenia, CSF leaks or cochlear implants, and who have previously received one or more doses of PPSV23 receive a dose of PCV13 one or more years after the last PPSV 23 dose was received”*

*For those that require additional doses of PPSV23, the first such dose should be given no sooner than 8 weeks after PCV13 and at least 5 years since the most recent dose of PPSV23.”*

**ACIP vote**

## ACIP vote

### Recommendation for PPSV-naïve adults

On the basis of the presented information, the WG proposes the following recommendation for a vote

#### **Proposed language:**

*“We recommend that adults 19 years of age or older with immunocompromising conditions, functional or anatomic asplenia, CSF leaks or cochlear implants, and who have not previously received PCV13 or PPSV23 receive a single dose of PCV13 followed by a dose of PPSV23 at least 8 weeks later.”*

## ACIP vote

Recommendation for adults previously vaccinated with PPSV23

On the basis of the presented information, the work group proposes the following recommendation for a vote

### Proposed language:

*“We recommend that adults 19 years of age or older with immunocompromising conditions, functional or anatomic asplenia, CSF leaks or cochlear implants, and who have previously received one or more doses of PPSV23 receive a dose of PCV13 one or more years after the last PPSV 23 dose was received”*

*For those that require additional doses of PPSV23, the first such dose should be given no sooner than 8 weeks after PCV13 and at least 5 years since the most recent dose of PPSV23.”*

# Acknowledgements

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