

Pneumococcal Vaccination Schedule Update and Guidance

In 2021, two new pneumococcal conjugate vaccines were approved by the FDA for those ≥18 years: 20-valent pneumococcal conjugate vaccine (PCV20) and 15-valent pneumococcal conjugate vaccine (PCV15). Conjugate vaccines utilize a protein joined to a unique polysaccharide from the surface of pneumococcal bacteria to help mount an immune response. This protein helps to improve the quality of the immune system response to the vaccine vs the unconjugated polysaccharide (PPSV23) and provides longer lasting immunity. On October 20th, 2021, the Advisory Committee on Immunization Practices (ACIP) simplified the pneumococcal vaccination across both age and risk group. Based on these new guidelines, **the 13-valent pneumococcal conjugate vaccine (PCV13) is no longer recommended**. Eligible adults may receive either PCV20 alone or PCV15 in series with PPSV23. Given PCV20 is a one dose vaccine series, this vaccination is preferred over the PCV15 series given ease of administration while providing adequate coverage against serotypes.

Patient Type		Pneumococcal Vaccine Administration History			
		Vaccine naive or unknown vaccination status	Previously received PPSV23 ONLY	Previously received PCV13 ONLY	Completed PCV13 and PPSV23 vaccination series
19-64 y/o**	PCV20	1 dose	1 dose at least 1 year after the most recent PPSV23	1 dose may be given 8 weeks after PCV13 if PPSV23 is not available	CSF leak or cochlear implant: 1 dose at ≥65 y/o at least 5 years after last PPSV23 Immunocompromising conditions: 1 dose at least 5 years after last PPSV23
	PCV15	1 dose followed by PPSV23 at least 1 year later [†]	1 dose at least 1 year after the most recent PPSV23	Not indicated	Not indicated
≥65 y/o	PCV20	1 dose	1 dose at least 1 year after the most recent PPSV23	1 dose may be used if PPSV23 is not available OR 1 dose PPSV23 at least 1 year after PCV13 and at least 5 years since last PPSV23 dose (if applicable)	Vaccination series is complete , no additional doses indicated
	PCV15	1 dose followed by PPSV23 at least 1 year later [†]	1 dose at least 1 year after the most recent PPSV23	Not indicated	

** If the patient has any of the following conditions or risk factors: alcoholism, cerebrospinal fluid (CSF) leak, chronic heart including congestive heart failure and cardiomyopathies, chronic liver disease, chronic lung disease, chronic renal failure, cigarette smoking, cochlear implant, congenital or acquired asplenia, congenital or acquired immunodeficiency including B- or T-lymphocyte deficiency, complement deficiency, phagocytic disorder, diabetes mellitus, generalized malignancy, HIV infection, Hodgkin disease, iatrogenic immunosuppression including long term systemic corticosteroids and radiation therapy, leukemia, lymphoma, multiple myeloma, nephrotic syndrome, sickle cell disease or other hemoglobinopathies, solid organ transplants † A minimum interval of 8 weeks may be considered in patients with immunocompromising conditions, cochlear implants, or CSF leak.

Frequently Asked Questions

1. What serotypes do the new conjugate vaccines cover compared to PCV13 and PPSV23?

- PCV20 adds 7 additional serotypes (shown below) that cause invasive pneumococcal disease and have been associated with high case fatality rates, antibiotic resistance and/or meningitis. This is a *one-dose vaccine series*.
- PCV15 followed by the PPSV23 provides the broadest coverage of serotypes; however, it is a *two-dose vaccine series*.

Product Information		Serotype																								
Brand name	Generic	1	2	3	4	5	6 A	6 B	7 F	8	9 N	9 V	10 A	11 A	12 F	14	15 B	17 F	18 C	19 A	19 F	20	22 F	23 F	33 F	
Pneumovax	PPSV23	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Pneumovax 23	PCV13	X		X	X	X	X	X	X		X					X			X	X	X				X	X
Vaxneuvance	PCV15	X		X	X	X	X	X	X							X			X	X	X			X	X	X
Pneumovax 20	PCV20	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X			X	X	X

2. Do pneumococcal vaccinations need to be repeated if given before 65 years of age?

- No. Once a patient has received either the PCV20 OR the PCV15 and PPSV23, they have completed his/her vaccination series and do not need an additional dose after he/she turns 65 years of age

3. Can the pneumococcal vaccines be co-administered with other vaccines?

- PCV15, PCV20 or PPSV23 can be administered with Fluarix or Fluad
- No data available on coadministration with other vaccines
- Evaluation of coadministration of PCV15, PCV20 or PPSV23 with COVID-19 vaccines are ongoing

References:

- ACIP proposes new, straightforward pneumococcal vaccine recommendations. U.S. Pharmacist. 2021. Accessed April 26, 2022. Available from: <https://www.uspharmacist.com/article/acip-proposes-new-straightforward-pneumococcal-vaccine-recommendations>
- Kobayashi M. Use of 15-valent pneumococcal conjugate vaccine and 20-valent pneumococcal conjugate vaccine among U.S. adults: updated recommendations of the advisory committee on immunization practices — United States, 2022. MMWR Morb Mortal Wkly Rep. 2022;71. Accessed April 26, 2022. Available from: <https://www.cdc.gov/mmwr/volumes/71/wr/mm7104a1.htm>
- Ask the experts: pneumococcal vaccines. 2022. Accessed April 26, 2022. Available from: https://www.immunize.org/askexperts/experts_pneumococcal_vaccines.asp
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