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Updated Adult Pneumococcal Conjugate Vaccine Recommendations

Summary

Invasive pneumococcal disease (IPD) is caused by the bacterium *Streptococcus pneumoniae* and is transmissible through respiratory droplets.¹ It can result in ear infections, pneumonia, meningitis, and sepsis. It is the most common cause of bacterial community-acquired pneumonia in the United States.

The Centers for Disease Control and Prevention (CDC) recommends pneumococcal vaccination for adults aged 19–64 years with certain underlying conditions and for all adults aged ≥65 years.^{2,3} In June 2024, the Advisory Committee on Immunization Practices (ACIP) recommended 21-valent PCV (PCV21) as an option for adults who are currently recommended to receive PCV15 or PCV20. The purpose of this *Bulletin* is to summarize the updated adult pneumococcal conjugate vaccine (PCV) recommendations and evaluate the benefits of PCV20 and PCV21.

Due to the high prevalence of serotype 4 IPD in Alaska, PCV20 is expected to provide better coverage against locally circulating strains than does PCV21. As such, Alaska clinicians are encouraged to use PCV20 in most circumstances.

PCV Strain Coverage

Nationally, the pneumococcal serotypes contained in PCV21 caused approximately 80% of IPD cases among adults with indications for vaccination, including 20%–30% due to the eight new serotypes contained in PCV21 during 2018–2022.² Serotype 4 IPD had significantly declined, but has recently reemerged as a cause of IPD in the western United States and Alaska.² During 2014–2023, serotype 4 accounted for 28% of IPD cases among Alaska adults (*source: CDC Arctic Investigations Program; unpublished data*). Adults aged <65 years with a high-risk condition, with history of substance abuse, or who are experiencing homelessness may be at risk for serotype 4 IPD.²

PCV15 and PCV20 cover serotype 4, but PCV21 does not.² The proportion of reported and typed IPD cases in Alaska covered by PCV20 and PCV21 (Table) show benefit for PCV20 coverage for adults overall and across each of the three age groups (19–49, 50–64, and ≥65 years). These data are not separated by prior vaccination status.

Adult PCV Recommendations

- Adults aged ≥65 years should receive one dose of PCV20 (or PCV15, if PCV20 is not available) unless they are known to have received a previous PCV dose.
 - If they received PCV20, no additional dose is needed.
 - If they received PCV15, they may need an additional dose of PPSV23 1 year later if they have an immunocompromising condition, a cochlear implant, or a cerebrospinal fluid leak.
 - If they received PCV13 at any age and PPSV23 after age 64 years, they may choose to get PCV20.⁴

- Adults aged ≥19 years with certain underlying conditions should receive a dose of PCV20 (or PCV15 if PCV20 is not available).
 - Risk conditions in adults include diabetes; immunocompromise; a cochlear implant; a cerebrospinal fluid leak; alcoholism; cigarette smoking; and chronic liver, heart, lung, or kidney disease.
 - If PCV15 is used, it should be followed by a dose of PPSV23 1 year later.⁴
 - If they have received a dose of PPSV23 in the past, they should get a dose of PCV20 (or PCV15 if PCV20 is not available) ≥1 year later (minimum interval 8 weeks).⁴
- PCV21 is another option for adults aged ≥19 years who are recommended to receive a dose of PCV (see caveats above).

Coadministration

PCV vaccines can be given simultaneously with other vaccines.⁴

Precautions and Contraindications

Moderate or severe acute illness is a *precaution* to vaccination; severe allergic reaction (e.g., anaphylaxis) to a previous PCV dose or component is a *contraindication*.⁵ People with minor acute illnesses (such as a cold) with or without fever can receive PCVs.⁵

Vaccine Availability

Many pharmacies in Alaska have PCV20 vaccines available. PCV20 is available to Alaskans through the federal Vaccines for Children (VFC) program, the Alaska Vaccine Assessment Program (AVAP), and via private purchase by health care providers. PCV21 is not currently included on the AVAP formulary. AVAP is an assessment program that facilitates the purchase of vaccines for eligible adults and children in Alaska through payments from insurance companies and assessable entities. For participating providers, the vaccine is available to patients at no cost, although an office visit fee may be charged. Some AVAP clinics also vaccinate uninsured adults. Several other PCVs are in development that cover a wider selection of strains and may be available in the next few years.

References

- CDC. About pneumococcal disease. Available: <https://www.cdc.gov/pneumococcal/about/index.html>
- MMWR. Use of 21-Valent Pneumococcal Conjugate Vaccine Among U.S. Adults: Recommendations of the Advisory Committee on Immunization Practices—United States, 2024. 73:793-798. Available: https://www.cdc.gov/mmwr/volumes/73/wr/mm7336a3.htm?s_cid=mm7336a3_w
- CDC. Summary of Risk-based Pneumococcal Vaccination Recommendations. Available at: https://www.cdc.gov/pneumococcal/hcp/vaccine-recommendations/risk-indications.html#cdc_generic_section_5-risk-conditions
- CDC. Shared Clinical Decision Making: PCV20 Vaccination for Adults 65 Years or Older. Available: <https://www.cdc.gov/vaccines/hcp/admin/downloads/job-aid-SCDM-PCV20-508.pdf>
- CDC. ACIP Contraindications Guidelines for Immunization. Updated August 1, 2023. Available: <https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html>

Table. Reported and Typed IPD Cases, by Age Group and Proportion Covered by PCV20 and PCV21 — Alaska 2019–2023

Age group (years)	19–49		50–64		≥65		All adults >18	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
PCV20-covered strain	338	(88)	287	(81)	141	(72)	766	(82)
PCV21-covered strain	185	(48)	179	(50)	127	(64)	491	(52)
Covered by neither	7	(2)	15	(4)	7	(4)	30	(3)
Total number of cases*	383		356		197		936	

*Some cases involved strains covered by both PCV20 and PCV21.