



Department of Health

Heidi Hedberg, Commissioner
Anne Zink, MD, Chief Medical Officer

3601 C Street, Suite 540
Anchorage, Alaska 99503

Division of Public Health

Christy Lawton, Acting Director

<https://health.alaska.gov/dph/Epi>
24 Hour Emergency (800) 478-0084
Local (907) 269-8000

Editors:

Joe McLaughlin, MD, MPH
Louisa Castrodale, DVM, MPH

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Pneumococcal Vaccination Update

Background

Alaska has experienced substantial reductions in invasive pneumococcal disease since the first pneumococcal conjugate vaccine (PCV) was introduced into the childhood immunization schedule in 2001.¹ Pneumococcal vaccination is routinely recommended for children aged <5 years and for adults aged ≥65 years. In some situations, persons aged 6–64 years are also recommended to get vaccinated against pneumococcal disease.^{2,3}

In January 2022, the Advisory Committee on Immunization Practices (ACIP) recommended that eligible adults should get *either* the new 15-valent PCV vaccine (PCV15; Merck Sharp & Dohme Corp.) in series with the 23-valent pneumococcal polysaccharide vaccine (PPSV23; Merck Sharp & Dohme Corp.) or the new 20-valent PCV vaccine (PCV20; Wyeth Pharmaceuticals LLC, a subsidiary of Pfizer Inc.) alone.² In June 2022, ACIP recommended that eligible children should get *either* PCV13 or PCV15.³

This *Bulletin* aims to summarize the new recommendations and provide updates to the Alaska Immunization Program formulary.

Recommendations

Pneumococcal vaccination recommendations are complicated; the PneumoRecs VaxAdvisor app helps vaccination providers quickly and easily determine which pneumococcal vaccines a patient needs and when.⁴

Children

- PCV13 or PCV15 vaccination are recommended for all children aged <5 years and children aged 5 through 18 years with certain medical conditions that increase their risk for pneumococcal disease.³
- PCV13 and PCV15 may be used interchangeably when vaccinating children.
- Recommendations for administering pneumococcal conjugate vaccine to incompletely vaccinated children, by age at visit, health status, and vaccination history are summarized in Table 2 of the September 16, 2022 Morbidity and Mortality Weekly Report (MMWR) on this topic.³
- Catch-up guidance for children is available from the Centers for Disease Control and Prevention (CDC).⁵
- PPSV23 is recommended for children aged 2 through 18 years with certain medical conditions after completing all recommended PCV doses (either PCV13 or PCV15).³ In most cases, these children should receive 1 dose of PPSV23 at age ≥2 years, ≥8 weeks after the most recent PCV dose.³ Immunocompromised children should receive a 2nd dose of PPSV23 at ≥5 years after the first dose.

Adults

- PCV15 or PCV20 are recommended for PCV-naïve adults who are either aged ≥65 years or aged 19–64 years with certain underlying conditions (i.e., alcoholism, cerebrospinal fluid leak, chronic heart/liver/lung disease, chronic renal failure, cigarette smoking, cochlear implant, congenital or acquired asplenia, congenital or acquired immunodeficiencies, diabetes, generalized malignancy, HIV infection, Hodgkin lymphoma, iatrogenic immunosuppression, leukemia, lymphoma, multiple myeloma, nephrotic syndrome, sickle cell disease or other hemoglobinopathies, or solid organ transplants).²
- Immunocompetent adults who have received 1 dose of PCV15 should receive 1 dose of PPSV23 ≥1 year later; consider administering PPSV23 ≥8 weeks after PCV15 in immunocompromised adults.²

- See the Updated Adult Pneumococcal Vaccination Recommendations *Bulletin* for guidance on vaccination recommendations.⁶
- In October 2022, ACIP approved recommendations for people who previously received PCV, which will be published in an MMWR in 2023.

PCV13 and PCV15 are both available in a single-dose prefilled syringe as a 0.5-mL dose administered intramuscularly. PCV15 can be used according to currently recommended PCV13 dosing and schedules. Pneumococcal vaccinations can be administered at the same time as other routine vaccines, including COVID-19, using different syringes and vaccine sites.

Contraindications

Pneumococcal vaccine is contraindicated for anyone who has a known severe allergic reaction to any component of PCV, PPSV23, or diphtheria toxoid-containing vaccine.

Vaccine Storage

PCV15 and PCV20 should be stored refrigerated at 2°C to 8°C. Manufacturer package inserts contain additional information. Do not freeze and protect from light.

State-Supplied Vaccine

As of December 2022, PCV15 is available on the pediatric and adult formulary from the Alaska Immunization Program. PCV15 protects against serotypes 1, 3, 4, 5, 6A, 6B, 7F, 9V, 14, 18C, 19A, 19F, 23F, 22F, and 33F. PCV13 will continue to be available as well.

PCV20 is also available from the Alaska Immunization Program for eligible adults. PCV20 protects against the serotypes covered by PCV15 and serotypes 8, 10A, 11A, 12F, 15B.

Health care providers who are enrolled to receive state-supplied vaccine may order these vaccines and must accurately document administration data into VacTrAK, Alaska's Immunization Information System.

Before administering PCV or PPSV23, health care providers should consult relevant package inserts regarding precautions and contraindications. Adverse events occurring after administration of any vaccine should be reported to the Vaccine Adverse Event Reporting System (VAERS). Reports can be submitted to VAERS online, by fax, or by mail. More information about VAERS is available at <https://vaers.hhs.gov>

References

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