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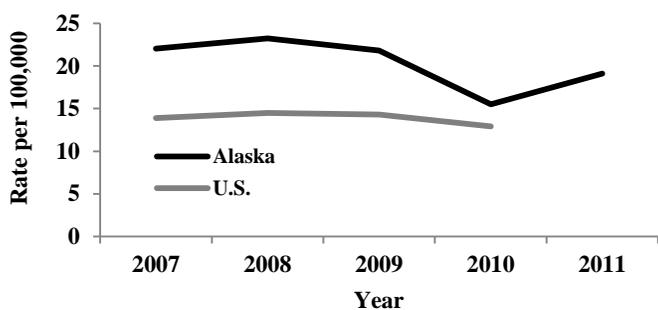
Updated Pneumococcal Vaccination Recommendations for High-Risk Adults

Background

Streptococcus pneumoniae, or pneumococcus, is a common cause of otitis media and sinusitis. Pneumococci bacteria also commonly invade parts of the body that are normally sterile and cause more severe illness, such as bacteremia, meningitis, and pneumonia. Adults with certain medical and other conditions are at increased risk for invasive pneumococcal disease (IPD; Table); the incidence of IPD among these high-risk adults can be more than 20 times that for adults without high-risk health conditions.¹ In the United States, approximately 4,000 deaths occur every year due to *S. pneumoniae* infection, and these deaths are predominantly among high-risk adults.²

Since IPD became reportable in Alaska in 2007, incidence rates have remained considerably higher in Alaska than the United States (Figure).^{2,3} Furthermore, within Alaska, rates of IPD have been particularly high among Alaska Native persons.⁴

Figure. Rate of Invasive Pneumococcal Disease — Alaska and the United States,* 2007–2011



*National IPD data for 2011 were not available.

New Pneumococcal Vaccine Recommendations

On June 20, 2012, the Advisory Committee on Immunization Practices (ACIP) revised its pneumococcal vaccination recommendations for adults with specified high-risk or immunocompromising conditions (Box).¹ Specifically, ACIP recommended that the 13-valent pneumococcal conjugate vaccine (PCV13) be administered in addition to the 23-valent pneumococcal polysaccharide vaccine (PPSV23) to high-risk adults aged ≥ 19 years; this includes otherwise immunocompetent adults who have cerebrospinal fluid leaks, cochlear implants, functional or anatomic asplenia, and adults with immunocompromising conditions (Table).¹ As a result of these new ACIP recommendations, PCV13 has just been added to the Alaska list of state-supplied vaccines that are available for underinsured and uninsured adults.⁵

Box. 2012 ACIP Recommendations for PCV13 and PPSV23 Vaccinations in Adults Aged ≥ 19 Years with Specified High-Risk or Immunocompromising Conditions

Adults who are eligible for pneumococcal vaccine

- Vaccinate with PCV13 during their next pneumococcal vaccination opportunity.

Adults not previously given PCV13 or PPSV23

- Vaccinate with a dose of PCV13 first, followed by a dose of PPSV23 ≥ 8 weeks later; and
- Subsequent doses of PPSV23 should follow current PPSV23 recommendations for adults at high risk.

Adults who previously received >1 doses of PPSV23

- Vaccinate with a PCV13 dose ≥ 1 year after the last PPSV23 was received; and
- Subsequent doses of PPSV23 should be given ≥ 8 weeks after PCV13 and follow current PPSV23 recommendations for adults at high risk.

Discussion

IPD continues to be an important public health threat in Alaska. Fortunately, IPD is highly preventable through the appropriate use of PCV13 and PPSV23 vaccines. Alaska health care providers should vaccinate all high-risk adults in accordance with the newly released ACIP recommendations (Table).¹

Due to their high IPD illness and mortality rates, Alaska Native persons aged 50–64 years should continue to receive one dose of PPV23 at age ≥ 50 years.⁴ All Alaskan adults should continue to receive first-time vaccination or a single revaccination (at least 5 years after any previous dose) with PPSV23 at age ≥ 65 years.⁴

State-supplied PCV13 and PPSV23 vaccines are currently both available for underinsured and uninsured adults. Health care providers should provide patients with the current PCV13 Vaccine Information Statement (VIS) until a revised version is published that reflects the new ACIP recommendations.⁶

Table. Medical Conditions or Other Indications for Administration of PCV13 and PPSV23 and Revaccination for Adults Aged ≥ 19 Years,* by Risk Group¹

Risk Group and Underlying Medical Condition	Recommended		Revaccinate 5 years after 1 st dose
	PCV13	PPSV23	PPSV23
Immunocompetent Persons			
Chronic heart disease [†]		✓	
Chronic lung disease [‡]		✓	
Diabetes mellitus		✓	
Cerebrospinal fluid leak	✓	✓	
Cochlear implant	✓	✓	
Alcoholism		✓	
Chronic liver disease, cirrhosis		✓	
Cigarette smoking		✓	
Persons with Functional or Anatomic Asplenia			
Sickle cell disease/other hemoglobinopathy	✓	✓	✓
Congenital or acquired asplenia	✓	✓	✓
Immunocompromised Persons			
Congenital or acquired immunodeficiency**	✓	✓	✓
Chronic renal failure	✓	✓	✓
Nephrotic syndrome	✓	✓	✓
Leukemia/Lymphoma/Hodgkins	✓	✓	✓
Generalized malignancy	✓	✓	✓
Iatrogenic immunosuppression ^{††}	✓	✓	✓
Solid organ transplant	✓	✓	✓
Multiple myeloma	✓	✓	✓

*All adults aged ≥ 65 years should receive a dose of PPSV23, regardless of previous history of vaccination with pneumococcal vaccine.

[†]Including congestive heart failure and cardiomyopathies, excluding hypertension.

[‡]Including chronic obstructive pulmonary disease, emphysema, and asthma.

**Includes B- (humoral) or T-lymphocyte deficiency, complement deficiencies (particularly C1, C2, C3, and C4 deficiencies), phagocytic disorders (excluding chronic granulomatous disease), and human immunodeficiency virus infection.

^{††}Diseases requiring treatment with immunosuppressive drugs, including long-term systemic corticosteroids and radiation therapy.

References

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2. CDC. Active Bacterial Core surveillance report, Emerging Infections Program Network, *Streptococcus pneumoniae*, 2010. Atlanta, GA: US Department of Health and Human Services, CDC; 2011. Available at <http://www.cdc.gov/abcs/reports-findings/survreports/spneu10-orig.html>
3. Alaska Section of Epidemiology. Summary of Notifiable Diseases from AK-STARs (Disease Surveillance and Reporting System), 2012.
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6. CDC. Pneumococcal Conjugate Vaccine VIS; April 16, 2010. Available at: <http://www.cdc.gov/vaccines/pubs/vis/downloads/vis-pcv.pdf>