State of Alaska Epidemiology **Bulletin**

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Updated Guidance for Pneumococcal Conjugate, Human Papillomavirus (HPV) and Tetanus/Diphtheria/acellular Pertussis (Tdap) Vaccines

Background

Three important vaccine updates are being made in Alaska due to changes in the type of vaccine provided by the Alaska Immunization Program or revisions to guidance from the Advisory Committee on Immunization Practices (ACIP).

PNEUMOCOCCAL CONJUGATE VACCINE (PCV)

On February 24, 2010 the Food and Drug Administration licensed a 13-valent pneumococcal conjugate vaccine (PCV13 [*Prevnar13*™, Wyeth]) for the prevention of invasive pneumococcal disease (IPD) and otitis media. PCV13 incorporates the seven serotypes found in PCV7 (*Prevnar*®, Wyeth), as well as six additional serotypes known to cause IPD. The ACIP recommends PCV13 for all children aged 2–59 months and for children aged 60–71 months with underlying medical conditions that increase their risk for pneumococcal disease or complications.[1]

Indications and Guidance for Use

No previous PCV7/PCV13 vaccination – Children through age 59 months with no history of PCV7/PCV13 should receive PCV13 per the same schedule previously published for PCV7, i.e., at ages 2, 4, 6, and 12–15 months. Children aged 7–59 months with no previous vaccination history should receive 1–3 doses, depending upon their age at the time vaccination begins and whether underlying medical conditions are present (Table 1).

Table 1. Recommended PCV13 Vaccination Schedule for Children with no Prior Doses of PCV7 or PCV13, by Age at First Dose

Age at 1st dose (months)	Primary PCV13 series*	PCV13 booster dose†
2–6	3 doses	1 dose at age 12–15 mos
7–11	2 doses	1 dose at age 12–15 mos
12–23	2 doses	--
24–59 *healthy children*	1 dose	--
24–71 *children with certain chronic diseases or immunocompromising conditions*[1]	2 doses	--

*Minimum interval between doses: 4 wks for children aged <12 mos, 8 wks for children aged ≥12 mos. Minimum age for 1st dose is age 6 wks.
† Given at least 8 wks after previous dose.

Incomplete PCV7/PCV13 vaccination – Infants and children who have received ≥1 dose of PCV7 should complete the series with PCV13 (Table 2). One (1) dose of PCV13 is recommended for all healthy children aged 24–59 months with any incomplete PCV (PCV13 or PCV7) schedule. Children aged 24–71 months with underlying medical conditions should receive 1 dose of PCV13 if their history indicates 3 doses of PCV were received before age 24 months; if <3 doses of PCV were received before age 24 months, 2 doses of PCV13 should be given.

Complete PCV7 vaccination – A single supplemental dose of PCV13 is recommended for all children aged 14–59 months who have received 4 doses of PCV7 or another age-appropriate, complete PCV7 schedule (Table 2). For children who have underlying medical conditions, a single supplemental PCV13 dose is recommended through age 71 months. A single dose of PCV13 may be administered to children aged 6–18 years who are at increased risk for IPD because of sickle cell disease, human immunodeficiency virus (HIV) infection or other immunocompromising condition, cochlear implant, or cerebrospinal fluid leaks, regardless of whether they have previously received PCV7 or PPSV23. Routine use of PCV13 is not recommended for healthy children aged ≥5 years.

Table 2. Recommended Transition Schedule from PCV7 to PCV13 Vaccination, by Number of Previous PCV7 Doses Received

Infant series			Booster dose	Supplemental PCV13 dose*
2 mos	**4 mos**	**6 mos**	**≥12 mos**	**14–59 mos†**
PCV7	PCV13	PCV13	PCV13	--
PCV7	PCV7	PCV13	PCV13	--
PCV7	PCV7	PCV7	PCV13	--
PCV7	PCV7	PCV7	PCV7	PCV13

* No additional PCV13 doses are indicated for children aged 12–23 mos who have received 2 or 3 doses of PCV at age <12 mos and at least 1 dose of PCV13 at age ≥12 mos.
† For children with underlying medical conditions, a single supplemental PCV13 is recommended through age 71 mos.

Transition from PCV7 to PCV13 – When PCV13 is available in a provider's office, children who are unvaccinated or incompletely vaccinated with PCV7 should complete the immunization series with PCV13. PCV7 should be used if it is the only pneumococcal vaccine available when children are due for vaccination, and PCV13 should be used to complete their series at subsequent visits. Children for whom the supplemental PCV13 dose is recommended should receive it at their next medical visit, at least 8 weeks after the last PCV7. The Vaccine Information Statement (VIS) for PCV7 may continue to be used until the PCV13 VIS is available. *After PCV13 is available, any remaining state-purchased PCV7 should be returned immediately to the Epidemiology Vaccine Depot.*

HUMAN PAPILLOMAVIRUS VACCINE (HPV)

The Immunization Program has provided quadrivalent HPV (HPV4 [*Gardasil*®, Merck]) vaccine for females aged 9–18 years since 2007.[2] In January 2009, use of this state-supplied vaccine was restricted to females who were eligible for the Vaccines for Children (VFC) program.[3] The ACIP has now posted provisional recommendations for HPV vaccine use in males to reduce their likelihood of acquiring genital warts.[4] Both HPV4 and the recently licensed bivalent HPV2 (*Cervarix*®, GlaxoSmithKline) vaccines are ACIP-recommended for prevention of infection with HPV types 16 and 18, which cause 70% of cervical cancers. However, only HPV4 provides protection against HPV types 6 and 11 (which cause 90% of genital warts) and is recommended for both males and females. The Immunization Program will continue to provide HPV4, and this state-supplied vaccine now may be used for VFC-eligible males aged 9–18 years.

TETANUS/DIPHTHERIA/ACELLULAR PERTUSSIS (Tdap)

In 2005 the Immunization Program began providing *Adacel*® (Sanofi Pasteur) Tdap vaccine for adolescents and adults,[5] which was licensed for use in persons aged 11–64 years. The licensed age indication for *Boostrix*® (GlaxoSmithKline) Tdap vaccine was recently expanded to include persons aged 10–64 years.[6] To expand the protection of Tdap vaccine to children who are age 10 years, the Immunization Program is now providing *Boostrix*® for use during any visit in which Tdap vaccine is recommended.

References

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