



MARK B HORTON, MD, MSPH
Director

State of California—Health and Human Services Agency
California Department of Public Health



ARNOLD SCHWARZENEGGER
Governor

August 25, 2008

IZB-FY0809-03

TO: California Vaccines for Children (VFC) Program Providers

FROM: John Talarico, D.O., M.P.H., Interim Chief Immunization Branch *John Talarico, D.O., M.P.H.*

SUBJECT: PENTACEL® (DTaP-IPV/Hib COMBINATION VACCINE) IS NOW AVAILABLE FROM VFC

This memo is divided into sections to enable you to quickly access the information you need:

Section	Page(s)
Summary	2
Background and Composition	2
Recommendations for Vaccine Use	2
Eligible Groups	2
Licensed Dosing Schedule	2-3
Recommended Schedule during Hib shortage	3
Administration	3-4
Administration with other vaccines	4
How Supplied	4
Ordering and Billing	4-5
Potential Vaccine Reactions	6
Contraindications	6
Precautions	6-7
Documentation	7

SUMMARY

In June 2008, United States Food and Drug Administration (FDA) licensed a new, combination vaccine, Pentacel™ (sanofi pasteur) for use in infants and young children. Pentacel™ is a diphtheria and tetanus toxoid and acellular pertussis adsorbed, inactivated poliovirus, and Haemophilus influenzae, type b conjugate (tetanus toxoid conjugate) vaccine. The Advisory Committee on Immunization Practices (ACIP) voted at their June 2008 meeting to recommend the inclusion of this new combination DTaP-IPV/Hib vaccine in the VFC program. Pentacel™ (DTaP-IPV/Hib vaccine) is now available from VFC in California. This document summarizes information about the use of Pentacel™ in the VFC program and updates on its use during the Hib-containing vaccine shortage in the United States.

BACKGROUND AND COMPOSITION

Pentacel™ is a combination vaccine which includes diphtheria and tetanus toxoids and acellular pertussis adsorbed and inactivated poliovirus (DTaP-IPV) component provided as a sterile liquid in a vial. This DTaP-IPV sterile liquid is used to reconstitute the lyophilized ActHIB vaccine (vial) component to form the Pentacel™ vaccine (DTaP-IPV/ActHIB). Pentacel™ contains the same pertussis antigens as DAPTACEL™ but contains twice as much detoxified pertussis toxin (PT) and four times as much filamentous hemagglutinin (FHA) as DAPTACEL™.

It is important to carefully store the components together so that the DTaP-IPV vial (sanofi pasteur) provided in the Pentacel™ package is used to reconstitute the ActHIB™ component (vial). **Do not** use any other sterile liquid or DTaP-IPV vaccine to reconstitute the ActHIB™ component supplied in the Pentacel™ package.

RECOMMENDATIONS FOR VACCINE USE

Eligible Groups for Receipt of VFC Supplies of Pentacel™

VFC supplies of Pentacel™ may be given to VFC-eligible infants and young children aged 6 weeks through 4 years.

Licensed Dosing Schedule

Pentacel™ is recommended for routine immunization to be given as a four-dose series administered intramuscularly at two months, four months, six months, and 15-18 months of age. The first dose may be given as early as six weeks of age.

Minimum ages and intervals:

- Dose 1: minimum age of six weeks.
- Dose 2: minimum age of 10 weeks and four weeks minimum interval from first dose.
- Dose 3: minimum age of 14 weeks and four weeks minimum interval from second dose.
- Dose 4: minimum age of 12 months (determined by DTaP and Hib components) and a minimum interval of six months from third dose (determined by DTaP component). In contrast, the minimum interval for dose 3 to 4 is 8 weeks for Hib and 4 weeks for IPV).

Valid Doses: The schedule, minimum intervals, and minimum ages are determined by the individual components (DTaP, IPV, and Hib vaccines). If the minimum age and interval is met for some components, but not all, the components that have met both the minimum age and interval criteria may be counted and considered valid while components which have not met the minimum criteria will be considered invalid. ACIP recommends that whenever feasible, the same manufacturer's DTaP product should be used for the primary series. However, if the previous brand is unavailable or unknown, any brand may be used to complete the series. Do not defer a dose solely to wait for a specific DTaP vaccine brand to be available. Interchangeability of products is allowed and considered valid.

Recommended Schedule during Hib Shortage

Due to the current Hib vaccine shortage, supplies of Hib-containing vaccines are still in very short supply despite the licensure of Pentacel™. At this time, it is not clear when the shortage of Hib-containing vaccines will resolve. Please do not use ActHIB™ or Pentacel™ for the fourth booster dose, except for children at high risk of Hib disease, because of the significant shortage of Hib-containing vaccines. Providers should continue to skip the booster dose of Hib vaccine for healthy children and recall them later for administration of the booster dose when supplies of Hib vaccine have improved. The Immunization Branch will update you when this Hib vaccine shortage situation changes.

The VFC Program still has some small supplies of PedvaxHIB™, prioritized for American Indian children, since they are at increased risk for Hib disease during the first six months of life. PedvaxHIB™ leads to a more rapid seroconversion in the first six months of life.

Considerations when transitioning to Pentacel: Many practices are currently using the combination DTaP-IPV-HBV vaccine (Pediarix™). We are requesting that each practice carefully consider the current choices of pentavalent vaccines (Pediarix™ and Pentacel™) and choose one formulation for administration in your practice to avoid confusion between the two pentavalent vaccines.

We are encouraging practices that are still not using a pentavalent vaccine during infancy to strongly consider using one of the available pentavalent vaccines to decrease the number of shots during infancy, which should benefit your families as well as your staff. We will work with you to transition your ordering to ensure that you have appropriate supplies of vaccine for your patients. If your practice is currently using single-antigen vaccines, you could begin using Pentacel™ as the first dose in the primary series for your two-month olds.

Infants already started on single-entity vaccines can finish the series with separately administered DTaP, IPV, and Hib vaccines. An alternative is to switch all infants to Pentacel™.

Administration

Instructions for reconstitution and administration of Pentacel™ (see package insert for details):

- Thoroughly but gently shake the vial of DTaP-IPV component.
Withdraw the entire liquid content into a syringe
- Insert the syringe needle through the stopper of the vial of lyophilized ActHIB™ vaccine component and inject the liquid into the vial.
- Shake vial thoroughly until a cloudy, uniform suspension results. Pentacel™ vaccine is uniform, cloudy, and white to off-white (yellow tinge) suspension. If extraneous

particulate matter or discoloration is seen, that dose of Pentacel should not be administered.

- After reconstitution, immediately withdraw all of the reconstituted Pentacel™ vaccine and administer intramuscularly.
- Pentacel™ should be used immediately after reconstitution.
- Store at 2 to 8 °C (35 to 46 °F). **Do not freeze.**

Administration with other vaccines

Pentacel™ may be given at the same time as other recommended vaccines. Pentacel™ should be given at a separate site with a different syringe.

HOW SUPPLIED

The vaccine is provided in a 5 dose package containing 5 vials of DTaP-IPV component to be used to reconstitute five single dose vials of lyophilized ActHIB™ vaccine component. The Product No. is 49281-510-05.

Neither the DTaP-IPV component nor the ActHIB™ vaccine component contains a preservative.

ORDERING AND BILLING

Order Calculations:

If you will be planning to transition to use of Pentacel™ for your patients, we are requesting that you calculate your usage so that you do not order excess Hib-containing vaccine, Pediarix™, or other vaccines during your transition (see Appendix for more details). If you will be switching to Pentacel™, it may be easier to complete the primary series for patient who already started their vaccination series with your current vaccine regimen and begin starting new infants on Pentacel™ with the first 2 month visit. We are requesting those providers with large supplies of ActHIB™ who wish to switch to Pentacel™ to either begin using Pentacel™ when their supply is smaller so that ActHIB™ vaccine is not wasted or to contact the VFC program so that we may assist with this transition and prevent wasted vaccine.

If you are switching from Pediarix™ to Pentacel™, make sure to order appropriate quantities of single antigen hepatitis B vaccine for your inventory.

Please educate your entire office staff if you will be using Pentacel™, as it will affect your vaccine ordering, storage, administration and documentation. We have included a guidance document to assist you in administering the recommended immunizations for children using either Pentacel™ or Pediarix™.

How to order

VFC providers may order Pentacel™ using the attached VFC order form (DHS 8501, 9/08), which has been modified to include this new product. Remember to complete all sections of the VFC order form when submitting your vaccine request. Requests for this product should be included with your routine VFC vaccine request, as you will need to provide current vaccine

inventory on hand for all VFC vaccines and their corresponding usage in order for VFC to process your request. Please be aware that your request may be adjusted, especially during this introductory phase and while the Hib vaccine shortage lasts.

In order to prevent unnecessary vaccine wastage or overcrowding of vaccine storage units, providers who have decided to introduce Pentacel™ in their practice are encouraged to decrease on-hand supplies of other combination vaccines (or use up large inventories of single antigen DTaP and IPV) prior to placing an order. Additionally, once your practice has agreed to the introduction of this new product and determined the best immunization schedule, orders for a different combination vaccine in subsequent vaccine requests should not be considered.

Here are a few tips to follow when placing your Pentacel™ request:

- Verify that the incorporation of this new product has been approved by your practice.
- Due to limited supply during the vaccine's introductory phase, practices are encouraged to order a limited amount of this vaccine to vaccinate patients who will be starting their first immunization series (2-month series).
- Practices using single antigen vaccines (DTaP, IPV, Hib) should decrease orders for single antigen DTaP, IPV, and ActHIB™ by one dose for every dose of Pentacel™ requested.
- Practices currently using other combination vaccines must carefully check current inventory for combination vaccines, ActHIB™, DTaP, HepB, and IPV and develop a plan to deplete excess of inventory prior to placing a request for Pentacel™. It is the provider's responsibility to ensure all vaccines received from the VFC program are used prior to its expiration date or transferred to a VFC provider that may be able to use them.

Remember, managing on-hand inventory appropriately as this new vaccine is introduced in your practice will be key in preventing unnecessary vaccine wastage, and decrease the risk of improper vaccination.

Billing Information for VFC Vaccine

CHDP: Claims may be submitted for doses of Pentacel™ administered on or after August 15, 2008. The CHDP administration fee is \$9.00 using CHDP code **82**.

However, providers should wait until notified by CHDP to submit claims. CHDP Provider Information Notices can be found at <http://www.dhcs.ca.gov/services/chdp/Pages/CHDPPLPIN.aspx>.

Medi-Cal Fee-For-Service (FFS): The CPT code for administration of Pentacel™ for Medi-Cal is **90698-SL**.

Other codes for the use of Pentacel™ that is not supplied by VFC:

- The CPT code for Pentacel™ is **90698**.
- The CPT code for administration of Pentacel™ is **90465** if given alone, and **+90466** if given after (an) additional vaccine(s) at the same visit (e.g., if Pentacel™ and hepatitis

B vaccine are given at the same encounter then one of the vaccine administration codes will be 90465 and the other +90466).

- The ICD-9-CM code for Pentacel™ is **V06.8**.

POTENTIAL VACCINE REACTIONS

Vaccine reactions were compared between Pentacel™ and DAPTACEL™+IPOL™+ActHIB™ for the first 3 doses and between Pentacel™ and DAPTACEL™ + ActHIB™ for dose four.

- Comparable solicited local and systemic adverse events
 - Tenderness, swelling, redness
 - Increased circumferential arm swelling
- Comparable overall rate of serious adverse events
- Comparable rates of fever > 38.5

Report suspected reactions to Pentacel™ or other vaccines to the Vaccine Adverse Events Reporting System (VAERS) at 800-822-7967 (toll-free) or <http://vaers.hhs.gov>.

CONTRAINDICATIONS

Contraindications and Precautions are similar with the individual vaccines, DTaP, IPV and Hib:

- History of severe allergic reaction (e.g., anaphylaxis) after a previous dose of Pentacel™ vaccine, any ingredient of Pentacel™ vaccine, or any other tetanus toxoid, diphtheria toxoid, pertussis-containing vaccine, inactivated poliovirus vaccine, or H. influenzae type b vaccine.
- As with other pertussis-containing vaccines:
 - Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) within 7 days of a previous dose of a pertussis containing vaccine that is not attributable to another identifiable cause.
 - Progressive neurologic disorder, including infantile spasms, uncontrolled epilepsy, progressive encephalopathy. Pertussis-containing vaccines should not be administered to individuals with such conditions until the neurologic status is clarified and stabilized.

PRECAUTIONS

- Moderate to severe illness.
- As with other DTaP-containing vaccines:
 - Temperature $\geq 40.5^{\circ}\text{C}$ ($\geq 105^{\circ}\text{F}$) within 48 hours of receipt of pertussi-containing vaccine, not attributable to another identifiable cause.
 - Collapse or shock-like state (hypotonic-hyporesponsive episode) within 48 hours of receipt of pertussi-containing vaccine.
 - Persistent, inconsolable crying lasting \geq three hours within 48 hours of receipt of pertussi-containing vaccine.
 - Seizure with or without fever within three days of receipt of pertussi-containing vaccine.

- Guillain Barré syndrome within six weeks of receipt of a prior vaccine containing tetanus toxoid.

DOCUMENTATION

Vaccine Information Statement (VIS) and fact sheet: A multiple vaccine VIS (1/30/08) is available for vaccines that are given between birth and the six months of age. This VIS or separate VIS for DTaP, IPV, and Hib can be used when administering Pentacel™. These VIS sheets can be found at <http://www.cdc.gov/vaccines/pubs/vis/default.htm>. Additional information on vaccines and vaccine preventable diseases can be found at: <http://www.cdc.gov/vaccines/>.

Product Insert: Refer to the product package insert for Pentacel™ for additional vaccine information. This may be found at <http://www.fda.gov/cber/products/pentacel.htm>.

VFC resolution No. 6/08-3 (Vaccines to Prevent Diphtheria, Tetanus and Pertussis):

VFC Resolution No. 6/08-4 (Vaccines to Prevent Poliomyelitis):

VFC Resolution No. 6/08-5 (Vaccines to Prevent *Haemophilus influenzae type b*):

The VFC resolutions for DTaP-, polio-, and Hib-containing vaccines have been updated and may be found at: <http://www.cdc.gov/vaccines/programs/vfc/acip-vfc-resolutions.htm>.

ACIP and AAP recommendations: ACIP recommendations for Pentacel™ will later be published at <http://www.cdc.gov/mmwr>. AAP vaccine recommendations and other information about vaccines are available to AAP members at <http://www.cispimmunize.org/>.

General Recommendations on Immunization (includes minimum ages and intervals): <http://www.cdc.gov/mmwr/PDF/rr/rr5515.pdf>

Vaccine Injury Compensation Program (VICP): Pentacel™ is covered by the federal VICP. Information on the federal VICP and DTaP-, polio-, and Hib-containing vaccines may be found at: <http://www.hrsa.gov/vaccinecompensation/>.

August 25, 2008

Enclosures: Order Form (9/08)

Guidance on the Use of Pentacel and Pediarix

cc: CDPH Immunization Branch Field Representatives
Local Health Officers
Local Health Department Immunization Coordinators
Local Health Department CHDP Program Directors
Vanessa Baird, Chief, Medi-Cal Managed Care Division, CDHS
Marian Dalsey, M.D., Acting Chief, Children Medical Services Branch, CDHS
Michael Farber, M.D., Chief Medical Officer, Medi-Cal Managed Care,
CDHS
Shabbir Ahmad, D.V.M., M.S., Ph.D., Acting Chief, Maternal, Child and Adolescent Health
Program, CDPH
Villita Lewis, Deputy Director, Benefits and Quality Monitoring, MRMIB
Robert Heiligman, M.D., Medical Policy Section, Medi-Cal Benefits, Waiver
Analysis and Rates Division, CDHS
Narinder Dhaliwal, M.D. Medical Policy Section, Medi-Cal Benefits,
Waiver Analysis and Rates Division, CDHS
Alan Morita, Pharm.D., Medi-Cal Pharmacy Policy Branch, CDHS
Kathy Chance, M.D., Children Medical Services Branch, CDHS