

## ADVISORY COMMITTEE ON IMMUNIZATION PRACTICES

### VACCINES FOR CHILDREN PROGRAM

#### VACCINES TO PREVENT *Haemophilus influenzae* type b (Hib)

*The purpose of this resolution is to update the Recommended Vaccination Schedule and Intervals section to reflect the list of currently available Hib-containing vaccines that can be used to prevent Hib disease and to add a clarifying footnote about the timing of the booster dose that is included in the most recent recommendations.*

**VFC resolution 2/13-2 is repealed and replaced by the following:**

#### Eligible groups

All children 6 weeks to 18 years of age, to prevent *Haemophilus influenzae* type b (Hib) disease.

#### Recommended Schedule and Dosage Intervals for Hib Vaccines

The recommended schedule includes 3 or 4 doses of a Hib-containing vaccine, depending on the specific vaccine, as shown in Table 1.

**Table 1. Schedule for administering doses of Hib-containing vaccines**

Vaccine	Brand (1)	Components	Primary series	Booster dose
<b>Monovalent vaccines</b>				
PRP-OMP (2,3)	PedvaxHIB	PRP conjugated to OMP	2, 4 months	12 – 15 months
PRP-T	ActHIB	PRP conjugated to tetanus toxoid	2, 4, 6 months	12 – 15 months
PRP-T	Hiberix	PRP conjugated to tetanus toxoid	2, 4, 6 months	12 – 15 months
<b>Combination vaccines</b>				
DTaP-IPV/Hib	Pentacel	DTaP + IPV + PRP-T	2, 4, 6 months	15 – 18 months (4)
DTaP-IPV-Hib-HepB (5)	Vaxelis	DTaP + IPV + PRP-OMP + HepB	2, 4, 6 months	Not licensed (6)

- (1) Use of brand names in Table 1 is not meant to preclude the use of other licensed Hib vaccines with similar active components.
- (2) If a PRP-OMP vaccine is not administered as both doses in the primary series or there is uncertainty about which products were previously administered, a third dose of Hib conjugate vaccine is needed to complete the primary series.
- (3) Preferred for American Indian/Alaska Native children.
- (4) The booster dose may be administered as early as age 12 months, provided that at least 6 months have elapsed since the third dose.
- (5) Not preferred for AI/AN children due to lack of immunogenicity data after the first dose.

(6) DTaP-IPV-Hib-HepB is not licensed for a booster dose; any other Hib conjugate vaccine licensed for the booster dose can be used.

Table 2. Minimum age and intervals for Hib vaccines

Minimum Age	Minimum Intervals—Primary Series (Up to 12 months)	Minimum Interval—Booster dose (12 months and older)
6 weeks	4 weeks	8 weeks

The ACIP recommends Hib vaccine for all children through 5 years of age. In addition, children less than 24 months of age who develop invasive Hib disease should be considered unvaccinated and receive Hib vaccine doses according to the age-appropriate schedule for unimmunized children. Vaccination or re-vaccination of children <24 months of age who develop invasive Hib disease should begin 4 weeks after disease.

If Hib vaccination is not initiated by 6 months of age, use the schedule shown in Table 3.

Table 3. Catch up Vaccination Schedule

Age at first vaccination	Primary series	Booster
7-11 months	2 doses, at least 4 weeks apart	Age 12-15 months at least 8 weeks after the second dose*
12-14 months	2 doses, at least 8 weeks apart	N/A
15-59 months	1 dose	N/A

\* A booster dose at 12 - 15 months of age is only necessary if 2 or 3 primary doses (depending on vaccine type used) were administered before age 12 months.

Table 4. Guidance for Hib Vaccination in High-Risk Groups

High-risk group*	Hib Vaccine Guidance
Patient <12 months of age	Follow routine Hib vaccination recommendations
Patients 12 - 59 months of age	If unimmunized or received 0 or 1 dose before age 12 months: 2 doses 2 months apart
	If received 2 or more doses before age 12 months: 1 dose
	If completed a primary series and received a booster dose at age 12 months or older: no additional doses
Patients undergoing chemotherapy or radiation therapy, age <59 months†	If routine Hib doses given 14 or more days before starting therapy: revaccination not required
	If dose given within 14 days of starting therapy or given during therapy: repeat doses starting at least 3 months following therapy completion
Patients undergoing elective splenectomy, >15 months-18 years	If unimmunized§: 1 dose prior to procedure ‡
Asplenic patients >59 months -18 years	If unimmunized§: 1 dose
HIV-infected patients >59 months – 18 years	If unimmunized§: 1 dose
Recipients of hematopoietic stem cell transplant, through 18 years	Regardless of Hib vaccination history: 3 doses (at least 1 month apart) beginning 6-12 months after transplant

\*Patients with functional or anatomic asplenia, HIV infection, immunoglobulin deficiency including Immunoglobulin G2 subclass deficiency, or early component complement deficiency, recipients of a hematopoietic stem cell transplant (HSCT), and those receiving chemotherapy for malignant neoplasms

† Some experts suggest conducting serologic testing for these patients.

‡Some experts suggest vaccination at least 14 days before the procedure; some experts suggest administering a dose prior to elective splenectomy regardless of prior vaccination history.

§ Patients who have received a primary series and booster dose or at least 1 dose of Hib vaccine after 14 months of age are considered immunized

## **Recommended dosage**

Refer to product package inserts.

## **Precautions and contraindications**

Contraindications and Precautions can be found in the package inserts available at:

<https://www.fda.gov/vaccines-blood-biologics/vaccines/vaccines-licensed-use-united-states>

[If an ACIP recommendation regarding Hib vaccination is published within 6 months following this resolution, the relevant language above (except in the eligible groups sections) will be replaced with the language in the recommendation and incorporated by reference to the publication URL.]

Adopted and Effective: June 26, 2019

This document can be found on the CDC website at:

<https://www.cdc.gov/vaccines/programs/vfc/providers/resolutions.html>