

HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use PEDIARIX safely and effectively. See full prescribing information for PEDIARIX.

PEDIARIX [Diphtheria and Tetanus Toxoids and Acellular Pertussis Adsorbed, Hepatitis B (Recombinant) and Inactivated Poliovirus Vaccine]

Suspension for Intramuscular Injection
Initial U.S. Approval: 2002

INDICATIONS AND USAGE

PEDIARIX is a vaccine indicated for active immunization against diphtheria, tetanus, pertussis, infection caused by all known subtypes of hepatitis B virus, and poliomyelitis. PEDIARIX is approved for use as a three-dose series in infants born of hepatitis B surface antigen (HBsAg)-negative mothers. PEDIARIX may be given as early as 6 weeks of age through 6 years of age (prior to the 7th birthday). (1)

DOSAGE AND ADMINISTRATION

Three doses (0.5-mL each) by intramuscular injection at 2, 4, and 6 months of age. (2.2)

DOSAGE FORMS AND STRENGTHS

Single-dose prefilled syringes containing a 0.5-mL suspension for injection. (3)

CONTRAINDICATIONS

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose of any diphtheria toxoid-, tetanus toxoid-, pertussis-, hepatitis B-, or poliovirus-containing vaccine, or to any component of PEDIARIX. (4.1)
- Encephalopathy within 7 days of administration of a previous pertussis-containing vaccine. (4.2)
- Progressive neurologic disorders. (4.3)

WARNINGS AND PRECAUTIONS

- In clinical trials, PEDIARIX was associated with higher rates of fever, relative to separately administered vaccines. (5.1)
- If Guillain-Barré syndrome occurs within 6 weeks of receipt of a prior

vaccine containing tetanus toxoid, the decision to give PEDIARIX should be based on potential benefits and risks. (5.2)

- The tip caps of the prefilled syringes contain natural rubber latex which may cause allergic reactions. (5.3)
- Syncope (fainting) can occur in association with administration of injectable vaccines, including PEDIARIX. Procedures should be in place to avoid falling injury and to restore cerebral perfusion following syncope. (5.4)
- If specified adverse events (i.e., temperature $\geq 105^{\circ}\text{F}$, collapse or shock-like state, or inconsolable crying lasting ≥ 3 hours, within 48 hours after vaccination; seizures within 3 days after vaccination) have occurred following a pertussis-containing vaccine, the decision to give PEDIARIX should be based on potential benefits and risks. (5.5)
- For children at higher risk for seizures, an antipyretic may be administered at the time of vaccination with PEDIARIX. (5.6)
- Apnea following intramuscular vaccination has been observed in some infants born prematurely. Decisions about when to administer an intramuscular vaccine, including PEDIARIX, to infants born prematurely should be based on consideration of the individual infant's medical status, and the potential benefits and possible risks of vaccination. (5.7)

ADVERSE REACTIONS

Common solicited adverse events following any dose ($\geq 25\%$) included local injection site reactions (pain, redness, and swelling), fever ($\geq 100.4^{\circ}\text{F}$), drowsiness, irritability/fussiness, and loss of appetite. (6.1)

To report SUSPECTED ADVERSE REACTIONS, contact GlaxoSmithKline at 1-888-825-5249 or VAERS at 1-800-822-7967 or www.vaers.hhs.gov.

DRUG INTERACTIONS

Do not mix PEDIARIX with any other vaccine in the same syringe or vial. (7.1)

See 17 for PATIENT COUNSELING INFORMATION.

Revised: xx/xxxx

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1 FULL PRESCRIBING INFORMATION

2 1 INDICATIONS AND USAGE

3 PEDIARIX[®] is indicated for active immunization against diphtheria, tetanus, pertussis, infection
4 caused by all known subtypes of hepatitis B virus, and poliomyelitis. PEDIARIX is approved for
5 use as a three-dose series in infants born of hepatitis B surface antigen (HBsAg)-negative
6 mothers. PEDIARIX may be given as early as 6 weeks of age through 6 years of age (prior to the
7 7th birthday).

8 2 DOSAGE AND ADMINISTRATION

9 2.1 Preparation for Administration

10 Shake vigorously to obtain a homogeneous, turbid, white suspension. Do not use if resuspension
11 does not occur with vigorous shaking. Parenteral drug products should be inspected visually for
12 particulate matter and discoloration prior to administration, whenever solution and container
13 permit. If either of these conditions exists, the vaccine should not be administered.

14 Attach a sterile needle and administer intramuscularly.

15 The preferred administration site is the anterolateral aspect of the thigh for children younger than
16 1 year. In older children, the deltoid muscle is usually large enough for an intramuscular
17 injection. The vaccine should not be injected in the gluteal area or areas where there may be a
18 major nerve trunk. Gluteal injections may result in suboptimal hepatitis B immune response.

19 Do not administer this product intravenously, intradermally, or subcutaneously.

20 2.2 Recommended Dose and Schedule

21 Immunization with PEDIARIX consists of 3 doses of 0.5 mL each, by intramuscular injection, at
22 2, 4, and 6 months of age (at intervals of 6 to 8 weeks, preferably 8 weeks). The first dose may
23 be given as early as 6 weeks of age. Three doses of PEDIARIX constitute a primary
24 immunization course for diphtheria, tetanus, pertussis, and poliomyelitis and the complete
25 vaccination course for hepatitis B.

26 2.3 Modified Schedules in Previously Vaccinated Children

27 Children Previously Vaccinated with Diphtheria and Tetanus Toxoids and Acellular 28 Pertussis Vaccine Adsorbed (DTaP)

29 PEDIARIX may be used to complete the first 3 doses of the DTaP series in children who have
30 received 1 or 2 doses of INFANRIX[®] (Diphtheria and Tetanus Toxoids and Acellular Pertussis
31 Vaccine Adsorbed), manufactured by GlaxoSmithKline, identical to the DTaP component of
32 PEDIARIX [see Description (11)] and are also scheduled to receive the other vaccine

33 components of PEDIARIX. Data are not available on the safety and effectiveness of using
34 PEDIARIX following one or more doses of a DTaP vaccine from a different manufacturer.

35 Children Previously Vaccinated with Hepatitis B Vaccine

36 PEDIARIX may be used to complete the hepatitis B vaccination series following 1 or 2 doses of
37 another hepatitis B vaccine (monovalent or as part of a combination vaccine), including vaccines
38 from other manufacturers, in children born of HBsAg-negative mothers who are also scheduled
39 to receive the other vaccine components of PEDIARIX.

40 A 3-dose series of PEDIARIX may be administered to infants born of HBsAg-negative mothers
41 and who received a dose of hepatitis B vaccine at or shortly after birth. However, data are limited
42 regarding the safety of PEDIARIX in such infants [*see Adverse Reactions (6.1)*]. There are no
43 data to support the use of a 3-dose series of PEDIARIX in infants who have previously received
44 more than one dose of hepatitis B vaccine.

45 Children Previously Vaccinated with Inactivated Poliovirus Vaccine (IPV)

46 PEDIARIX may be used to complete the first 3 doses of the IPV series in children who have
47 received 1 or 2 doses of IPV from a different manufacturer and are also scheduled to receive the
48 other vaccine components of PEDIARIX.

49 **2.4 Booster Immunization following PEDIARIX**

50 Children who have received a 3-dose series with PEDIARIX should complete the DTaP and IPV
51 series according to the recommended schedule.¹ Because the pertussis antigens contained in
52 INFANRIX and KINRIX[®] (Diphtheria and Tetanus Toxoids and Acellular Pertussis Adsorbed
53 and Inactivated Poliovirus Vaccine), manufactured by GlaxoSmithKline, are the same as those in
54 PEDIARIX, these children should receive INFANRIX as their fourth dose of DTaP and either
55 INFANRIX or KINRIX as their fifth dose of DTaP, according to the respective prescribing
56 information for these vaccines. KINRIX or another manufacturer's IPV may be used to complete
57 the 4-dose IPV series according to the respective prescribing information.

58 **3 DOSAGE FORMS AND STRENGTHS**

59 PEDIARIX is a suspension for injection available in 0.5-mL single-dose prefilled TIP-LOK[®]
60 syringes.

61 **4 CONTRAINDICATIONS**

62 **4.1 Hypersensitivity**

63 A severe allergic reaction (e.g., anaphylaxis) after a previous dose of any diphtheria toxoid-,
64 tetanus toxoid-, pertussis antigen-, hepatitis B-, or poliovirus-containing vaccine or any
65 component of this vaccine, including yeast, neomycin, and polymyxin B, is a contraindication to
66 administration of PEDIARIX [*see Description (11)*].

67 **4.2 Encephalopathy**

68 Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) within 7 days
69 of administration of a previous dose of a pertussis-containing vaccine that is not attributable to
70 another identifiable cause is a contraindication to administration of any pertussis-containing
71 vaccine, including PEDIARIX.

72 **4.3 Progressive Neurologic Disorder**

73 Progressive neurologic disorder, including infantile spasms, uncontrolled epilepsy, or
74 progressive encephalopathy is a contraindication to administration of any pertussis-containing
75 vaccine, including PEDIARIX. PEDIARIX should not be administered to individuals with such
76 conditions until the neurologic status is clarified and stabilized.

77 **5 WARNINGS AND PRECAUTIONS**

78 **5.1 Fever**

79 In clinical trials, administration of PEDIARIX in infants was associated with higher rates of
80 fever, relative to separately administered vaccines [see *Adverse Reactions (6.1)*].

81 **5.2 Guillain-Barré Syndrome**

82 If Guillain-Barré syndrome occurs within 6 weeks of receipt of a prior vaccine containing tetanus
83 toxoid, the decision to give PEDIARIX or any vaccine containing tetanus toxoid should be based
84 on careful consideration of the potential benefits and possible risks.

85 **5.3 Latex**

86 The tip caps of the prefilled syringes contain natural rubber latex which may cause allergic
87 reactions.

88 **5.4 Syncope**

89 Syncope (fainting) can occur in association with administration of injectable vaccines, including
90 PEDIARIX. Syncope can be accompanied by transient neurological signs such as visual
91 disturbance, paresthesia, and tonic-clonic limb movements. Procedures should be in place to
92 avoid falling injury and to restore cerebral perfusion following syncope.

93 **5.5 Adverse Events following Prior Pertussis Vaccination**

94 If any of the following events occur in temporal relation to receipt of a vaccine containing a
95 pertussis component, the decision to give any pertussis-containing vaccine, including
96 PEDIARIX, should be based on careful consideration of the potential benefits and possible risks:

- 97 • Temperature of $\geq 40.5^{\circ}\text{C}$ (105°F) within 48 hours not due to another identifiable cause;
- 98 • Collapse or shock-like state (hypotonic-hyporesponsive episode) within 48 hours;
- 99 • Persistent, inconsolable crying lasting ≥ 3 hours, occurring within 48 hours;
- 100 • Seizures with or without fever occurring within 3 days.

101 **5.6 Children at Risk for Seizures**

102 For children at higher risk for seizures than the general population, an appropriate antipyretic
103 may be administered at the time of vaccination with a vaccine containing a pertussis component,
104 including PEDIARIX, and for the ensuing 24 hours to reduce the possibility of post-vaccination
105 fever.

106 **5.7 Apnea in Premature Infants**

107 Apnea following intramuscular vaccination has been observed in some infants born prematurely.
108 Decisions about when to administer an intramuscular vaccine, including PEDIARIX, to infants
109 born prematurely should be based on consideration of the individual infant's medical status, and
110 the potential benefits and possible risks of vaccination.

111 **5.8 Preventing and Managing Allergic Vaccine Reactions**

112 Prior to administration, the healthcare provider should review the immunization history for
113 possible vaccine sensitivity and previous vaccination-related adverse reactions to allow an
114 assessment of benefits and risks. Epinephrine and other appropriate agents used for the control of
115 immediate allergic reactions must be immediately available should an acute anaphylactic
116 reaction occur.

117 **6 ADVERSE REACTIONS**

118 **6.1 Clinical Trials Experience**

119 Because clinical trials are conducted under widely varying conditions, adverse event rates
120 observed in the clinical trials of a vaccine cannot be directly compared with rates in the clinical
121 trials of another vaccine, and may not reflect the rates observed in practice.

122 A total of 23,849 doses of PEDIARIX have been administered to 8,088 infants who received one
123 or more doses as part of the 3-dose series during 14 clinical studies. Common adverse events that
124 occurred in $\geq 25\%$ of subjects following any dose of PEDIARIX included local injection site
125 reactions (pain, redness, and swelling), fever, drowsiness, irritability/fussiness, and loss of
126 appetite. In comparative studies (including the German and US studies described below),
127 administration of PEDIARIX was associated with higher rates of fever relative to separately
128 administered vaccines [see *Warnings and Precautions (5.1)*]. The prevalence of fever was
129 highest on the day of vaccination and the day following vaccination. More than 96% of episodes
130 of fever resolved within the 4-day period following vaccination (i.e., the period including the day
131 of vaccination and the next 3 days).

132 In the largest of the 14 studies, conducted in Germany, safety data were available for 4,666
133 infants who received PEDIARIX administered concomitantly at separate sites with 1 of 4
134 *Haemophilus influenzae* type b (Hib) conjugate vaccines (GlaxoSmithKline [licensed in the US
135 only for booster immunization], Wyeth Pharmaceuticals Inc. [no longer licensed in the US],
136 Sanofi Pasteur SA [US-licensed], or Merck & Co, Inc. [US-licensed]) at 3, 4, and 5 months of

137 age and for 768 infants in the control group that received separate US-licensed vaccines
138 (INFANRIX, Hib conjugate vaccine [Sanofi Pasteur SA], and oral poliovirus vaccine [OPV]
139 [Wyeth Pharmaceuticals, Inc.; no longer licensed in the US]). In this study, information on
140 adverse events that occurred within 30 days following vaccination was collected. More than 95%
141 of study participants were white.

142 In a US study, the safety of PEDIARIX administered to 673 infants was compared with the
143 safety of separately administered INFANRIX, ENGERIX-B[®] [Hepatitis B Vaccine
144 (Recombinant)], and IPV (Sanofi Pasteur SA) in 335 infants. In both groups, infants received
145 Hib conjugate vaccine (Wyeth Pharmaceuticals Inc.; no longer licensed in the US) and 7-valent
146 pneumococcal conjugate vaccine (Wyeth Pharmaceuticals Inc.) concomitantly at separate sites.
147 All vaccines were administered at 2, 4, and 6 months of age. Data on solicited local reactions and
148 general adverse events were collected by parents using standardized diary cards for
149 4 consecutive days following each vaccine dose (i.e., day of vaccination and the next 3 days).
150 Telephone follow-up was conducted 1 month and 6 months after the third vaccination to inquire
151 about serious adverse events. At the 6-month follow-up, information also was collected on new
152 onset of chronic illnesses. A total of 638 subjects who received PEDIARIX and 313 subjects
153 who received INFANRIX, ENGERIX-B, and IPV completed the 6-month follow-up. Among
154 subjects in both study groups combined, 69% were white, 18% were Hispanic, 7% were black,
155 3% were Oriental, and 3% were of other racial/ethnic groups.

156 Solicited Adverse Events

157 Data on solicited local reactions and general adverse events from the US safety study are
158 presented in Table 1. This study was powered to evaluate fever >101.3°F following Dose 1. The
159 rate of fever ≥100.4°F following each dose was significantly higher in the group that received
160 PEDIARIX compared with separately administered vaccines. Other statistically significant
161 differences between groups in rates of fever, as well as other solicited adverse events, are noted
162 in Table 1. Medical attention (a visit to or from medical personnel) for fever within 4 days
163 following vaccination was sought in the group who received PEDIARIX for 8 infants after the
164 first dose (1.2%), 1 infant following the second dose (0.2%), and 5 infants following the third
165 dose (0.8%) (Table 1). Following Dose 2, medical attention for fever was sought for 2 infants
166 (0.6%) who received separately administered vaccines (Table 1). Among infants who had a
167 medical visit for fever within 4 days following vaccination, 9 of 14 who received PEDIARIX
168 and 1 of 2 who received separately administered vaccines, had one or more diagnostic studies
169 performed to evaluate the cause of fever.

170 **Table 1. Percentage of Infants with Solicited Local Reactions or General Adverse Events**
 171 **within 4 Days of Vaccination^a at 2, 4, and 6 Months of Age with PEDIARIX Administered**
 172 **Concomitantly with Hib Conjugate Vaccine and 7-Valent Pneumococcal Conjugate**
 173 **Vaccine (PCV7) or with Separate Concomitant Administration of INFANRIX,**
 174 **ENGERIX-B, IPV, Hib Conjugate Vaccine, and PCV7 (Modified Intent-to-Treat Cohort)**

	PEDIARIX, Hib Vaccine, & PCV7			INFANRIX, ENGERIX-B, IPV, Hib Vaccine, & PCV7		
	Dose 1	Dose 2	Dose 3	Dose 1	Dose 2	Dose 3
Local^b						
N	671	653	648	335	323	315
Pain, any	36.1	36.1	31.2	31.9	30.0	29.8
Pain, Grade 2 or 3	11.5	10.9	10.6	9.0	8.7	8.9
Pain, Grade 3	2.4	2.5	1.7	2.7	1.5	1.3
Redness, any	24.9 ^c	37.2	40.1	18.2	32.8	39.0
Redness, >5 mm	6.0 ^c	9.6 ^c	12.7 ^c	1.8	5.9	7.3
Redness, >20 mm	0.9	1.2 ^c	2.8	0.3	0.0	1.9
Swelling, any	17.3 ^c	26.5 ^c	28.7	9.6	20.4	24.8
Swelling, >5 mm	5.8 ^c	9.6 ^c	9.3 ^c	1.8	5.0	4.1
Swelling, >20 mm	1.9	2.5 ^c	3.1	0.6	0.0	1.3
General						
N	667	644	645	333	321	311
Fever ^d , ≥100.4°F	27.9 ^c	38.8 ^c	33.5 ^c	19.8	30.2	23.8
Fever ^d , >101.3°F	7.0	14.1 ^c	8.8	4.5	9.7	5.8
Fever ^d , >102.2°F	2.2 ^c	3.6	3.4	0.3	3.1	2.3
Fever ^d , >103.1°F	0.4	1.4	1.1	0.0	0.3	0.3
Fever ^d , M.A.	1.2 ^c	0.2	0.8	0.0	0.6	0.0
N	671	653	648	335	323	315
Drowsiness, any	57.2	51.6	40.9	54.0	48.3	38.4
Drowsiness, Grade 2 or 3	15.8	13.8	11.4	17.6	12.4	11.1
Drowsiness, Grade 3	2.5	1.2	0.9	3.6	0.6	1.9
Irritability/Fussiness, any	60.5	64.9	61.1	61.5	61.6	56.5
Irritability/Fussiness, Grade 2 or 3	19.8	27.9 ^c	25.2 ^c	19.4	21.1	19.4
Irritability/Fussiness, Grade 3	3.4	4.4	3.5	3.9	3.4	3.2
Loss of appetite, any	30.4	30.6	26.2	27.8	26.6	23.8
Loss of appetite, Grade 2 or 3	6.6	7.8 ^c	5.9	5.1	3.4	5.4
Loss of appetite, Grade 3	0.7	0.3	0.2	0.6	0.3	0.0

175 Hib conjugate vaccine (Wyeth Pharmaceuticals Inc.; no longer licensed in the US); PCV7

176 (Wyeth Pharmaceuticals Inc.); IPV (Sanofi Pasteur SA).

177 Modified intent-to-treat cohort = All vaccinated subjects for whom safety data were available.

178 N = Number of infants for whom at least one symptom sheet was completed; for fever, numbers

179 exclude missing temperature recordings or tympanic measurements.

180 M.A. = Medically attended (a visit to or from medical personnel).

- 181 Grade 2 defined as sufficiently discomforting to interfere with daily activities.
182 Grade 3 defined as preventing normal daily activities.
- 183 ^a Within 4 days of vaccination defined as day of vaccination and the next 3 days.
184 ^b Local reactions at the injection site for PEDIARIX or INFANRIX.
185 ^c Rate significantly higher in the group that received PEDIARIX compared with separately
186 administered vaccines (*P* value <0.05 [2-sided Fisher Exact test] or the 95% CI on the
187 difference between groups [Separate minus PEDIARIX] does not include 0).
188 ^d Axillary temperatures increased by 1°C and oral temperatures increased by 0.5°C to derive
189 equivalent rectal temperature.

190 Serious Adverse Events

191 Within 30 days following any dose of vaccine in the US safety study in which all subjects
192 received concomitant Hib and pneumococcal conjugate vaccines, 7 serious adverse events were
193 reported in 7 subjects (1% [7/673]) who received PEDIARIX (1 case each of pyrexia,
194 gastroenteritis, and culture-negative clinical sepsis and 4 cases of bronchiolitis) and 5 serious
195 adverse events were reported in 4 subjects (1% [4/335]) who received INFANRIX, ENGERIX-
196 B, and IPV (uteropelvic junction obstruction and testicular atrophy in one subject and 3 cases of
197 bronchiolitis).

198 Deaths

199 In 14 clinical trials, 5 deaths were reported among 8,088 (0.06%) recipients of PEDIARIX and 1
200 death was reported among 2,287 (0.04%) recipients of comparator vaccines. Causes of death in
201 the group that received PEDIARIX included 2 cases of Sudden Infant Death Syndrome (SIDS)
202 and one case of each of the following: convulsive disorder, congenital immunodeficiency with
203 sepsis, and neuroblastoma. One case of SIDS was reported in the comparator group. The rate of
204 SIDS among all recipients of PEDIARIX across the 14 trials was 0.25/1,000. The rate of SIDS
205 observed for recipients of PEDIARIX in the German safety study was 0.2/1,000 infants (reported
206 rate of SIDS in Germany in the latter part of the 1990s was 0.7/1,000 newborns). The reported
207 rate of SIDS in the United States from 1990 to 1994 was 1.2/1,000 live births. By chance alone,
208 some cases of SIDS can be expected to follow receipt of pertussis-containing vaccines.

209 Onset of Chronic Illnesses

210 In the US safety study in which all subjects received concomitant Hib and pneumococcal
211 conjugate vaccines, 21 subjects (3%) who received PEDIARIX and 14 subjects (4%) who
212 received INFANRIX, ENGERIX-B, and IPV reported new onset of a chronic illness during the
213 period from 1 to 6 months following the last dose of study vaccines. Among the chronic illnesses
214 reported in the subjects who received PEDIARIX, there were 4 cases of asthma and 1 case each
215 of diabetes mellitus and chronic neutropenia. There were 4 cases of asthma in subjects who
216 received INFANRIX, ENGERIX-B, and IPV.

217 Seizures

218 In the German safety study over the entire study period, 6 subjects in the group that received
219 PEDIARIX (N = 4,666) reported seizures. Two of these subjects had a febrile seizure, 1 of
220 whom also developed afebrile seizures. The remaining 4 subjects had afebrile seizures, including
221 2 with infantile spasms. Two subjects reported seizures within 7 days following vaccination (1
222 subject had both febrile and afebrile seizures, and 1 subject had afebrile seizures), corresponding
223 to a rate of 0.22 seizures per 1,000 doses (febrile seizures 0.07 per 1,000 doses, afebrile seizures
224 0.14 per 1,000 doses). No subject who received concomitant INFANRIX, Hib vaccine, and OPV
225 (N = 768) reported seizures. In a separate German study that evaluated the safety of INFANRIX
226 in 22,505 infants who received 66,867 doses of INFANRIX administered as a 3-dose primary
227 series, the rate of seizures within 7 days of vaccination with INFANRIX was 0.13 per 1,000
228 doses (febrile seizures 0.0 per 1,000 doses, afebrile seizures 0.13 per 1,000 doses).

229 Over the entire study period in the US safety study in which all subjects received concomitant
230 Hib and pneumococcal conjugate vaccines, 4 subjects in the group that received PEDIARIX
231 (N = 673) reported seizures. Three of these subjects had a febrile seizure and 1 had an afebrile
232 seizure. Over the entire study period, 2 subjects in the group that received INFANRIX,
233 ENGERIX-B, and IPV (N = 335) reported febrile seizures. There were no afebrile seizures in
234 this group. No subject in either study group had seizures within 7 days following vaccination.

235 Other Neurological Events of Interest

236 No cases of hypotonic-hyposponsiveness or encephalopathy were reported in either the
237 German or US safety studies.

238 Safety of PEDIARIX after a Previous Dose of Hepatitis B Vaccine

239 Limited data are available on the safety of administering PEDIARIX after a previous dose of
240 hepatitis B vaccine. In 2 separate studies, 160 Moldovan infants and 96 US infants, respectively,
241 received 3 doses of PEDIARIX following 1 previous dose of hepatitis B vaccine. Neither study
242 was designed to detect significant differences in rates of adverse events associated with
243 PEDIARIX administered after a previous dose of hepatitis B vaccine compared with PEDIARIX
244 administered without a previous dose of hepatitis B vaccine.

245 **6.2 Postmarketing Safety Surveillance Study**

246 In a safety surveillance study conducted at a health maintenance organization in the US, infants
247 who received one or more doses of PEDIARIX from approximately mid-2003 through mid-2005
248 were compared with age-, gender-, and area-matched historical controls who received one or
249 more doses of separately administered US-licensed DTaP vaccine from 2002 through
250 approximately mid-2003. Only infants who received 7-valent pneumococcal conjugate vaccine
251 (Wyeth Pharmaceuticals Inc.) concomitantly with PEDIARIX or DTaP vaccine were included in
252 the cohorts. Other US-licensed vaccines were administered according to routine practices at the
253 study sites, but concomitant administration with PEDIARIX or DTaP was not a criterion for

254 inclusion in the cohorts. A birth dose of hepatitis B vaccine had been administered routinely to
 255 infants in the historical DTaP control cohort, but not to infants who received PEDIARIX. For
 256 each of Doses 1-3, a random sample of 40,000 infants who received PEDIARIX was compared
 257 with the historical DTaP control cohort for the incidence of seizures (with or without fever)
 258 during the 8-day period following vaccination. For each dose, random samples of 7,500 infants
 259 in each cohort were also compared for the incidence of medically-attended fever (fever $\geq 100.4^{\circ}\text{F}$
 260 that resulted in hospitalization, an emergency department visit, or an outpatient visit) during the
 261 4-day period following vaccination. Possible seizures and medical visits plausibly related to
 262 fever were identified by searching automated inpatient and outpatient data files. Medical record
 263 reviews of identified events were conducted to verify the occurrence of seizures or medically-
 264 attended fever. The incidence of verified seizures and medically-attended fever from this study
 265 are presented in Table 2.

266 **Table 2. Percentage of Infants with Seizures (with or without Fever) within 8 Days of**
 267 **Vaccination and Medically-attended Fever within 4 Days of Vaccination with PEDIARIX**
 268 **Compared with Historical Controls**

	PEDIARIX			Historical DTaP Controls			Difference (PEDIARIX–DTaP Controls)
	N	n	% (95% CI)	N	n	% (95% CI)	% (95% CI)
All Seizures (with or without fever)							
Dose 1, Days 0-7	40,000	7	0.02 (0.01, 0.04)	39,232	6	0.02 (0.01, 0.03)	0.00 (-0.02, 0.02)
Dose 2, Days 0-7	40,000	3	0.01 (0.00, 0.02)	37,405	4	0.01 (0.00, 0.03)	0.00 (-0.02, 0.01)
Dose 3, Days 0-7	40,000	6	0.02 (0.01, 0.03)	40,000	5	0.01 (0.00, 0.03)	0.00 (-0.01, 0.02)
Total doses	120,000	16	0.01 (0.01, 0.02)	116,637	15	0.01 (0.01, 0.02)	0.00 (-0.01, 0.01)
Medically-attended Fever^a							
Dose 1, Days 0-3	7,500	14	0.19 (0.11, 0.30)	7,500	14	0.19 (0.11, 0.30)	0.00 (-0.14, 0.14)
Dose 2, Days 0-3	7,500	25	0.33 (0.22, 0.48)	7,500	15	0.20 (0.11, 0.33)	0.13 (-0.03, 0.30)
Dose 3, Days 0-3	7,500	21	0.28 (0.17, 0.43)	7,500	19	0.25 (0.15, 0.39)	0.03 (-0.14, 0.19)
Total doses	22,500	60	0.27 (0.20, 0.34)	22,500	48	0.21 (0.16, 0.28)	0.05 (-0.01, 0.14)

269 DTaP – any US-licensed DTaP vaccine. Infants received 7-valent pneumococcal conjugate
 270 vaccine (Wyeth Pharmaceuticals Inc.) concomitantly with each dose of PEDIARIX or DTaP.
 271 Other US-licensed vaccines were administered according to routine practices at the study sites.
 272 N = Number of subjects in the given cohort.

273 n = Number of subjects with events reported in the given cohort.

274 ^a Medically-attended fever defined as fever $\geq 100.4^{\circ}\text{F}$ that resulted in hospitalization, an

275 emergency department visit, or an outpatient visit.

276 **6.3 Postmarketing Spontaneous Reports for PEDIARIX**

277 In addition to reports in clinical trials, worldwide voluntary reports of adverse events received
278 for PEDIARIX since market introduction of this vaccine are listed below. This list includes
279 serious adverse events or events that have a suspected causal connection to components of
280 PEDIARIX. Because these events are reported voluntarily from a population of uncertain size, it
281 is not possible to reliably estimate their frequency or establish a causal relationship to vaccine
282 exposure.

283 Cardiac Disorders

284 Cyanosis.

285 Gastrointestinal Disorders

286 Diarrhea, vomiting.

287 General Disorders and Administration Site Conditions

288 Fatigue, injection site cellulitis, injection site induration, injection site itching, injection site
289 nodule/lump, injection site reaction, injection site vesicles, injection site warmth, limb pain, limb
290 swelling.

291 Immune System Disorders

292 Anaphylactic reaction, anaphylactoid reaction, hypersensitivity.

293 Infections and Infestations

294 Upper respiratory tract infection.

295 Investigations

296 Abnormal liver function tests.

297 Nervous System Disorders

298 Bulging fontanelle, depressed level of consciousness, encephalitis, hypotonia, hypotonic-
299 hyporesponsive episode, lethargy, somnolence, syncope.

300 Psychiatric Disorders

301 Crying, insomnia, nervousness, restlessness, screaming, unusual crying.

302 Respiratory, Thoracic, and Mediastinal Disorders

303 Apnea, cough, dyspnea.

304 Skin and Subcutaneous Tissue Disorders

305 Angioedema, erythema, rash, urticaria.

306 Vascular Disorders

307 Pallor, petechiae.

308 **6.4 Postmarketing Spontaneous Reports for INFANRIX and/or ENGERIX-B**

309 Worldwide voluntary reports of adverse events received for INFANRIX and/or ENGERIX-B in
310 children younger than 7 years of age but not already reported for PEDIARIX are listed below.

311 This list includes serious adverse events or events that have a suspected causal connection to
312 components of INFANRIX and/or ENGERIX-B. Because these events are reported voluntarily
313 from a population of uncertain size, it is not possible to reliably estimate their frequency or
314 establish a causal relationship to vaccine exposure.

315 Blood and Lymphatic System Disorders

316 Idiopathic thrombocytopenic purpura,^{a,b} lymphadenopathy,^a thrombocytopenia.^{a,b}

317 Gastrointestinal Disorders

318 Abdominal pain,^b intussusception,^{a,b} nausea.^b

319 General Disorders and Administration Site Conditions

320 Asthenia,^b malaise.^b

321 Hepatobiliary Disorders

322 Jaundice.^b

323 Immune System Disorders

324 Anaphylactic shock,^a serum sickness–like disease.^b

325 Musculoskeletal and Connective Tissue Disorders

326 Arthralgia,^b arthritis,^b muscular weakness,^b myalgia.^b

327 Nervous System Disorders

328 Encephalopathy,^a headache,^a meningitis,^b neuritis,^b neuropathy,^b paralysis.^b

329 Skin and Subcutaneous Tissue Disorders

330 Alopecia,^b erythema multiforme,^b lichen planus,^b pruritus,^{a,b} Stevens Johnson syndrome.^a

331 Vascular Disorders

332 Vasculitis.^b

333 ^a Following INFANRIX (licensed in the United States in 1997).

334 ^b Following ENGERIX-B (licensed in the United States in 1989).

335 **7 DRUG INTERACTIONS**

336 **7.1 Concomitant Vaccine Administration**

337 Immune responses following concomitant administration of PEDIARIX, Hib conjugate vaccine
338 (Wyeth Pharmaceuticals Inc.; no longer licensed in the US), and 7-valent pneumococcal
339 conjugate vaccine (Wyeth Pharmaceuticals Inc.) were evaluated in a clinical trial [*see Clinical*
340 *Studies (14.3)*].

341 When PEDIARIX is administered concomitantly with other injectable vaccines, they should be
342 given with separate syringes and at different injection sites. PEDIARIX should not be mixed
343 with any other vaccine in the same syringe or vial.

344 **7.2 Immunosuppressive Therapies**

345 Immunosuppressive therapies, including irradiation, antimetabolites, alkylating agents, cytotoxic
346 drugs, and corticosteroids (used in greater than physiologic doses), may reduce the immune
347 response to PEDIARIX.

348 **8 USE IN SPECIFIC POPULATIONS**

349 **8.1 Pregnancy**

350 Pregnancy Category C

351 Animal reproduction studies have not been conducted with PEDIARIX. It is not known whether
352 PEDIARIX can cause fetal harm when administered to a pregnant woman or if PEDIARIX can
353 affect reproduction capacity.

354 **8.4 Pediatric Use**

355 Safety and effectiveness of PEDIARIX were established in the age group 6 weeks through
356 6 months on the basis of clinical studies [*see Adverse Reactions (6.1), Clinical Studies (14.1,*
357 *14.2)*]. Safety and effectiveness of PEDIARIX in the age group 7 months through 6 years are
358 supported by evidence in infants 6 weeks through 6 months of age. Safety and effectiveness of
359 PEDIARIX in infants younger than 6 weeks of age and children 7 to 16 years of age have not
360 been evaluated.

361 **11 DESCRIPTION**

362 PEDIARIX [Diphtheria and Tetanus Toxoids and Acellular Pertussis Adsorbed, Hepatitis B
363 (Recombinant) and Inactivated Poliovirus Vaccine] is a noninfectious, sterile vaccine for
364 intramuscular administration. Each 0.5-mL dose is formulated to contain 25 Lf of diphtheria
365 toxoid, 10 Lf of tetanus toxoid, 25 mcg of inactivated pertussis toxin (PT), 25 mcg of
366 filamentous hemagglutinin (FHA), 8 mcg of pertactin (69 kiloDalton outer membrane protein),
367 10 mcg of HBsAg, 40 D-antigen Units (DU) of Type 1 poliovirus (Mahoney), 8 DU of Type 2
368 poliovirus (MEF-1), and 32 DU of Type 3 poliovirus (Saukett). The diphtheria, tetanus, and

369 pertussis components are the same as those in INFANRIX and KINRIX. The hepatitis B surface
370 antigen is the same as that in ENGERIX-B.

371 The diphtheria toxin is produced by growing *Corynebacterium diphtheriae* in Fenton medium
372 containing a bovine extract. Tetanus toxin is produced by growing *Clostridium tetani* in a
373 modified Latham medium derived from bovine casein. The bovine materials used in these
374 extracts are sourced from countries which the United States Department of Agriculture (USDA)
375 has determined neither have nor present an undue risk for bovine spongiform encephalopathy
376 (BSE). Both toxins are detoxified with formaldehyde, concentrated by ultrafiltration, and
377 purified by precipitation, dialysis, and sterile filtration.

378 The acellular pertussis antigens (PT, FHA, and pertactin) are isolated from *Bordetella pertussis*
379 culture grown in modified Stainer-Scholte liquid medium. PT and FHA are isolated from the
380 fermentation broth; pertactin is extracted from the cells by heat treatment and flocculation. The
381 antigens are purified in successive chromatographic and precipitation steps. PT is detoxified
382 using glutaraldehyde and formaldehyde. FHA and pertactin are treated with formaldehyde.

383 The hepatitis B surface antigen is obtained by culturing genetically engineered *Saccharomyces*
384 *cerevisiae* cells, which carry the surface antigen gene of the hepatitis B virus, in synthetic
385 medium. The surface antigen expressed in the *S. cerevisiae* cells is purified by several
386 physiochemical steps, which include precipitation, ion exchange chromatography, and
387 ultrafiltration.

388 The inactivated poliovirus component is an enhanced potency component. Each of the 3 strains
389 of poliovirus is individually grown in VERO cells, a continuous line of monkey kidney cells,
390 cultivated on microcarriers. Calf serum and lactalbumin hydrolysate are used during VERO cell
391 culture and/or virus culture. Calf serum is sourced from countries the USDA has determined
392 neither have nor present an undue risk for BSE. After clarification, each viral suspension is
393 purified by ultrafiltration, diafiltration, and successive chromatographic steps, and inactivated
394 with formaldehyde. The 3 purified viral strains are then pooled to form a trivalent concentrate.

395 Diphtheria and tetanus toxoids and pertussis antigens (inactivated PT, FHA, and pertactin) are
396 individually adsorbed onto aluminum hydroxide. The hepatitis B component is adsorbed onto
397 aluminum phosphate.

398 Diphtheria and tetanus toxoid potency is determined by measuring the amount of neutralizing
399 antitoxin in previously immunized guinea pigs. The potency of the acellular pertussis component
400 (inactivated PT, FHA, and pertactin) is determined by enzyme-linked immunosorbent assay
401 (ELISA) on sera from previously immunized mice. Potency of the hepatitis B component is
402 established by HBsAg ELISA. The potency of the inactivated poliovirus component is
403 determined by using the D-antigen ELISA and by a poliovirus neutralizing cell culture assay on
404 sera from previously immunized rats.

405 Each 0.5-mL dose contains aluminum salts as adjuvant (not more than 0.85 mg aluminum by

406 assay) and 4.5 mg of sodium chloride. Each dose also contains ≤ 100 mcg of residual
407 formaldehyde and ≤ 100 mcg of polysorbate 80 (Tween 80). Neomycin sulfate and polymyxin B
408 are used in the poliovirus vaccine manufacturing process and may be present in the final vaccine
409 at ≤ 0.05 ng neomycin and ≤ 0.01 ng polymyxin B per dose. The procedures used to manufacture
410 the HBsAg antigen result in a product that contains $\leq 5\%$ yeast protein.

411 The tip caps of the prefilled syringes contain natural rubber latex; the plungers are not made with
412 natural rubber latex.

413 PEDIARIX is formulated without preservatives.

414 **12 CLINICAL PHARMACOLOGY**

415 **12.1 Mechanism of Action**

416 Diphtheria

417 Diphtheria is an acute toxin-mediated infectious disease caused by toxigenic strains of *C.*
418 *diphtheriae*. Protection against disease is due to the development of neutralizing antibodies to the
419 diphtheria toxin. A serum diphtheria antitoxin level of 0.01 IU/mL is the lowest level giving
420 some degree of protection; a level of 0.1 IU/mL is regarded as protective.²

421 Tetanus

422 Tetanus is an acute toxin-mediated disease caused by a potent exotoxin released by *C. tetani*.
423 Protection against disease is due to the development of neutralizing antibodies to the tetanus
424 toxin. A serum tetanus antitoxin level of at least 0.01 IU/mL, measured by neutralization assays,
425 is considered the minimum protective level.^{3,4} A level ≥ 0.1 IU/mL is considered protective.⁵

426 Pertussis

427 Pertussis (whooping cough) is a disease of the respiratory tract caused by *B. pertussis*. The role
428 of the different components produced by *B. pertussis* in either the pathogenesis of, or the
429 immunity to, pertussis is not well understood. There is no established serological correlate of
430 protection for pertussis.

431 Hepatitis B

432 Infection with hepatitis B virus can have serious consequences including acute massive hepatic
433 necrosis and chronic active hepatitis. Chronically infected persons are at increased risk for
434 cirrhosis and hepatocellular carcinoma.

435 Antibody concentrations ≥ 10 mIU/mL against HBsAg are recognized as conferring protection
436 against hepatitis B virus infection.⁶

437 Poliomyelitis

438 Poliovirus is an enterovirus that belongs to the picornavirus family. Three serotypes of poliovirus
439 have been identified (Types 1, 2, and 3). Poliovirus neutralizing antibodies confer protection

440 against poliomyelitis disease.⁷

441 **13 NONCLINICAL TOXICOLOGY**

442 **13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility**

443 PEDIARIX has not been evaluated for carcinogenic or mutagenic potential, or for impairment of
444 fertility.

445 **14 CLINICAL STUDIES**

446 The efficacy of PEDIARIX is based on the immunogenicity of the individual antigens compared
447 with licensed vaccines. Serological correlates of protection exist for the diphtheria, tetanus,
448 hepatitis B, and poliovirus components. The efficacy of the pertussis component, which does not
449 have a well established correlate of protection, was determined in clinical trials of INFANRIX.

450 **14.1 Efficacy of INFANRIX**

451 Efficacy of a 3-dose primary series of INFANRIX has been assessed in 2 clinical studies.

452 A double-blind, randomized, active Diphtheria and Tetanus Toxoids (DT)-controlled trial
453 conducted in Italy, sponsored by the National Institutes of Health (NIH), assessed the absolute
454 protective efficacy of INFANRIX when administered at 2, 4, and 6 months of age. The
455 population used in the primary analysis of the efficacy of INFANRIX included 4,481 infants
456 vaccinated with INFANRIX and 1,470 DT vaccinees. After 3 doses, the absolute protective
457 efficacy of INFANRIX against WHO-defined typical pertussis (21 days or more of paroxysmal
458 cough with infection confirmed by culture and/or serologic testing) was 84% (95% CI: 76%,
459 89%). When the definition of pertussis was expanded to include clinically milder disease, with
460 infection confirmed by culture and/or serologic testing, the efficacy of INFANRIX was 71%
461 (95% CI: 60%, 78%) against >7 days of any cough and 73% (95% CI: 63%, 80%) against
462 ≥ 14 days of any cough. A longer unblinded follow-up period showed that after 3 doses and with
463 no booster dose in the second year of life, the efficacy of INFANRIX against WHO-defined
464 pertussis was 86% (95% CI: 79%, 91%) among children followed to 6 years of age. For details
465 see INFANRIX prescribing information.

466 A prospective efficacy trial was also conducted in Germany employing a household contact
467 study design. In this study, the protective efficacy of INFANRIX administered to infants at 3, 4,
468 and 5 months of age, against WHO-defined pertussis was 89% (95% CI: 77%, 95%). When the
469 definition of pertussis was expanded to include clinically milder disease, with infection
470 confirmed by culture and/or serologic testing, the efficacy of INFANRIX against ≥ 7 days of any
471 cough was 67% (95% CI: 52%, 78%) and against ≥ 7 days of paroxysmal cough was 81% (95%
472 CI: 68%, 89%). For details see INFANRIX prescribing information.

473 **14.2 Immunological Evaluation of PEDIARIX**

474 In a US multicenter study, infants were randomized to 1 of 3 groups: (1) a combination vaccine

475 group that received PEDIARIX concomitantly with Hib conjugate vaccine (Wyeth
476 Pharmaceuticals Inc.; no longer licensed in the US) and US-licensed 7-valent pneumococcal
477 conjugate vaccine (Wyeth Pharmaceuticals Inc.); (2) a separate vaccine group that received US-
478 licensed INFANRIX, ENGERIX-B, and IPV (Sanofi Pasteur SA) concomitantly with the same
479 Hib and pneumococcal conjugate vaccines; and (3) a staggered vaccine group that received
480 PEDIARIX concomitantly with the same Hib conjugate vaccine but with the same pneumococcal
481 conjugate vaccine administered 2 weeks later. The schedule of administration was 2, 4, and
482 6 months of age. Infants either did not receive a dose of hepatitis B vaccine prior to enrollment
483 or were permitted to receive one dose of hepatitis B vaccine administered at least 30 days prior
484 to enrollment. For the separate vaccine group, ENGERIX-B was not administered at 4 months of
485 age to subjects who received a dose of hepatitis B vaccine prior to enrollment. Among subjects
486 in all 3 vaccine groups combined, 84% were white, 7% were Hispanic, 6% were black, 0.7%
487 were Oriental, and 2.4% were of other racial/ethnic groups.

488 The immune responses to the pertussis (PT, FHA, and pertactin), diphtheria, tetanus, poliovirus,
489 and hepatitis B antigens were evaluated in sera obtained one month (range: 20 to 60 days) after
490 the third dose of PEDIARIX or INFANRIX. Geometric mean antibody concentrations (GMCs)
491 adjusted for pre-vaccination values for PT, FHA, and pertactin and the seroprotection rates for
492 diphtheria, tetanus, and the polioviruses among subjects who received PEDIARIX in the
493 combination vaccine group were shown to be non-inferior to those achieved following separately
494 administered vaccines (Table 3).

495 Because of differences in the hepatitis B vaccination schedule among subjects in the study, no
496 clinical limit for non-inferiority was pre-defined for the hepatitis B immune response. However,
497 in a previous US study, non-inferiority of PEDIARIX relative to separately administered
498 INFANRIX, ENGERIX-B, and an oral poliovirus vaccine, with respect to the hepatitis B
499 immune response was demonstrated.

500 **Table 3. Antibody Responses following PEDIARIX as Compared with Separate**
 501 **Concomitant Administration of INFANRIX, ENGERIX-B, and IPV (One Month^a after**
 502 **Administration of Dose 3) in Infants Vaccinated at 2, 4, and 6 Months of Age When**
 503 **Administered Concomitantly with Hib Conjugate Vaccine and Pneumococcal Conjugate**
 504 **Vaccine (PCV7)**

	PEDIARIX, Hib Vaccine, & PCV7	INFANRIX, ENGERIX-B, IPV, Hib Vaccine, & PCV7
	(N = 154-168)	(N = 141-155)
Anti-diphtheria Toxoid % ≥ 0.1 IU/mL ^b	99.4	98.7
Anti-tetanus Toxoid % ≥ 0.1 IU/mL ^b	100	98.1
Anti-PT % VR ^c GMC ^b	98.7 48.1	95.1 28.6
Anti-FHA % VR ^c GMC ^b	98.7 111.9	96.5 97.6
Anti-pertactin % VR ^c GMC ^b	91.7 95.3	95.1 80.6
Anti-polio 1 % $\geq 1:8$ ^{b,d}	100	100
Anti-polio 2 % $\geq 1:8$ ^{b,d}	100	100
Anti-polio 3 % $\geq 1:8$ ^{b,d}	100	100
	(N = 114-128)	(N = 111-121)
Anti-HBsAg ^e % ≥ 10 mIU/mL ^f GMC (mIU/mL) ^f	97.7 1032.1	99.2 614.5

505 Hib conjugate vaccine (Wyeth Pharmaceuticals Inc.; no longer licensed in the US); PCV7
 506 (Wyeth Pharmaceuticals Inc.); IPV (Sanofi Pasteur SA).

507 Assay methods used: ELISA for anti-diphtheria, anti-tetanus, anti-PT, anti-FHA, anti-pertactin,
 508 and anti-HBsAg; micro-neutralization for anti-polio (1, 2, and 3).

509 VR = Vaccine response: In initially seronegative infants, appearance of antibodies (concentration
 510 ≥ 5 EL.U./mL); in initially seropositive infants, at least maintenance of pre-vaccination
 511 concentration.

512 GMC = Geometric mean antibody concentration. GMCs are adjusted for pre-vaccination levels.

513 ^a One month blood sampling, range: 20 to 60 days.

514 ^b Seroprotection rate or GMC for PEDIARIX not inferior to separately administered vaccines
 515 (upper limit of 90% CI on GMC ratio [separate vaccine group/combination vaccine group]
 516 < 1.5 for anti-PT, anti-FHA, and anti-pertactin, and upper limit of 95% CI for the difference in

517 seroprotection rates [separate vaccine group minus combination vaccine group] <10% for
518 diphtheria and tetanus and <5% for the 3 polioviruses). GMCs are adjusted for pre-
519 vaccination levels.

520 ^c The upper limit of 95% CI for differences in vaccine response rates (separate vaccine group
521 minus combination group) was 0.31, 1.52, and 9.46 for PT, FHA, and pertactin, respectively.
522 No clinical limit defined for non-inferiority.

523 ^d Poliovirus neutralizing antibody titer.

524 ^e Subjects who received a previous dose of hepatitis B vaccine were excluded from the analysis
525 of hepatitis B seroprotection rates and GMCs presented in the table.

526 ^f No clinical limit defined for non-inferiority.

527 **14.3 Concomitant Vaccine Administration**

528 In a US multicenter study [*see Clinical Studies (14.2)*], there was no evidence for interference
529 with the immune responses to PEDIARIX when administered concomitantly with 7-valent
530 pneumococcal conjugate vaccine (Wyeth Pharmaceuticals Inc.) relative to 2 weeks prior.

531 Anti-PRP (Hib polyribosyl-ribitol-phosphate) seroprotection rates and GMCs of pneumococcal
532 antibodies one month (range: 20 to 60 days) after the third dose of vaccines for the combination
533 vaccine group and the separate vaccine group from the US multicenter study [*see Clinical*
534 *Studies (14.2)*], are presented in Table 4.

535 **Table 4. Anti-PRP Seroprotection Rates and GMCs (mcg/mL) of Pneumococcal Antibodies**
 536 **One Month^a following the Third Dose of Hib Conjugate Vaccine and Pneumococcal**
 537 **Conjugate Vaccine (PCV7) Administered Concomitantly with PEDIARIX or with**
 538 **INFANRIX, ENGERIX-B, and IPV**

	PEDIARIX, Hib Vaccine, & PCV7	INFANRIX, ENGERIX-B, IPV, Hib Vaccine, & PCV7
	(N = 161-168)	(N = 146-156)
	% (95% CI)	% (95% CI)
Anti-PRP ≥0.15 mcg/mL	100 (97.8, 100)	99.4 (96.5, 100)
Anti-PRP ≥1.0 mcg/mL	95.8 (91.6, 98.3)	91.0 (85.3, 95.0)
	GMC (95% CI)	GMC (95% CI)
Pneumococcal Serotype		
4	1.7 (1.5, 2.0)	2.1 (1.8, 2.4)
6B	0.8 (0.7, 1.0)	0.7 (0.5, 0.9)
9V	1.6 (1.4, 1.8)	1.6 (1.4, 1.9)
14	4.7 (4.0, 5.4)	6.3 (5.4, 7.4)
18C	2.6 (2.3, 3.0)	3.0 (2.5, 3.5)
19F	1.1 (1.0, 1.3)	1.1 (0.9, 1.2)
23F	1.5 (1.2, 1.8)	1.8 (1.5, 2.3)

539 Hib conjugate vaccine (Wyeth Pharmaceuticals Inc.; no longer licensed in the US); PCV7
 540 (Wyeth Pharmaceuticals Inc.); IPV (Sanofi Pasteur SA).

541 Assay method used: ELISA for anti-PRP and 7 pneumococcal serotypes.

542 GMC = Geometric mean antibody concentration.

543 ^a One month blood sampling, range: 20 to 60 days.

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565 **16 HOW SUPPLIED/STORAGE AND HANDLING**

566 PEDIARIX is available in 0.5-mL single-dose disposable prefilled TIP-LOK syringes (packaged
567 without needles):

568 NDC 58160-811-43 Syringe in Package of 10: NDC 58160-811-52

569 Store refrigerated between 2° and 8°C (36° and 46°F). Do not freeze. Discard if the vaccine has
570 been frozen.

571 **17 PATIENT COUNSELING INFORMATION**

572 The parent or guardian should be:

- 573 • informed of the potential benefits and risks of immunization with PEDIARIX, and of the
574 importance of completing the immunization series.
- 575 • informed about the potential for adverse reactions that have been temporally associated with
576 administration of PEDIARIX or other vaccines containing similar components.
- 577 • instructed to report any adverse events to their healthcare provider.
- 578 • given the Vaccine Information Statements, which are required by the National Childhood
579 Vaccine Injury Act of 1986 to be given prior to immunization. These materials are available free
580 of charge at the Centers for Disease Control and Prevention (CDC) website (www.cdc.gov/nip).

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582 GSK group of companies.



583

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