OREGON HEALTH AUTHORITY
IMMUNIZATION PROTOCOL FOR PHARMACISTS
ENHANCED-POTENCY INACTIVATED
POLIOVIRUS VACCINE [IPV]

Update as of 12-21-2012 to clarify rules for minimum intervals between doses in a 3- or 4- dose IPV schedule.

4-Dose Recommended Schedule for 11–18 year olds
- The 4-dose IPV series is administered at ages 2, 4, and 6–18 months, and 4–6 years of age.
- The final dose in the IPV series should be administered at ≥4 years of age regardless of the number of previous doses. If a 5th dose is required to complete the 4 dose IPV series, the minimum spacing between the 4th and 5th dose is 6 months. (Section III-A p.2)
- The minimum interval from dose 3 to dose 4 is being extended from 4 weeks to 6 months. The minimum intervals from dose 1 to 2 and from dose 2 to 3 are 4 weeks.

3-Dose Catch-Up Schedule for Persons <18 years of age:
- The final dose in the IPV series should be administered at ≥4 years of age regardless of the number of previous doses.
- The minimum interval from dose 1 to dose 2 is 4 weeks and from dose 2 to dose 3 is 6 months. (Section III-A p.2-foot note 4)

I. Order:
1. Check the ALERT Immunization Information System to determine whether the patient needs this vaccine and any other vaccines.
2. Screen clients ≥11 years for contraindications.
3. Provide an Adolescent Well Visit Flyer to those 11—18 years of age.
4. Provide a current Vaccine Information Sheet (VIS) answering any questions.
5. Obtain a signed Vaccination Administration Record (VAR)
6. Give Inactivated Polio Vaccine (IPV): 0.5mL subcutaneously (SC) or intramuscularly (IM). May be given with all routine adolescent and adult vaccines.

Immunizing Pharmacist Signature ___________________________ Date
For multiple signatures see: http://1.usa.gov/PharmacyImmunizationProtocols

Revised: 12-2012
Reviewed: 12-2013
Original: 11-2006
II. LICENSED INACTIVATED POLIO VACCINE (IPV)

<table>
<thead>
<tr>
<th>PRODUCT NAME</th>
<th>VACCINE COMPONENTS</th>
<th>ACCEPTABLE AGE RANGE</th>
<th>Preservatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPOL®²</td>
<td>Inactivated polio virus (IPV) serotypes 1, 2 and 3</td>
<td>≥ 6 weeks of age</td>
<td>None</td>
</tr>
</tbody>
</table>

Sanofi Pasteur

1 Oral polio vaccine (OPV) has been unavailable in the United States Since 1999.

2 Less than 5 ng of neomycin, 200 ng of streptomycin, and 25 ng of polymyxin B per dose are present in vaccine.

III. RECOMMENDATIONS FOR USE

III.A IPV VACCINE SCHEDULE FOR UNVACCINATED CHILDREN 11—18 YEARS OF AGE

<table>
<thead>
<tr>
<th>Dose 0.5 ml</th>
<th>Recommended Interval to next dose</th>
<th>Minimum interval to next dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2 months</td>
<td>4 weeks</td>
</tr>
<tr>
<td>2</td>
<td>2–14 months³</td>
<td>4 weeks</td>
</tr>
<tr>
<td>3</td>
<td>3–5 yrs</td>
<td>6 months</td>
</tr>
<tr>
<td>4⁴</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

¹The use of an IPV-containing combined vaccine is acceptable as long as the other antigen(s) are not contraindicated.

²For retrospective checking, doses that violate the minimum spacing or age by 4 or fewer days do not need to be repeated. Doses administered 5 days or earlier than the minimum interval or age should be repeated as appropriate for age.

³The preferred interval between the 2nd and 3rd doses of IPV is 2–14 months. However, if accelerated protection is needed, the minimum interval between doses 2 and 3 is 4 weeks.

⁴The final dose in the IPV series should be administered at ≥4 years of age and ≥6 months after the previous dose regardless of the number of previous doses. If a 5th dose is required to complete the IPV series, the minimum spacing between the 4th and 5th dose is 6 months. In a 3-dose (e.g. late start or catch-up) polio schedule, the minimum spacing between the 2nd and 3rd dose is 6 months.
### III. B. RECOMMENDATIONS FOR USE

<table>
<thead>
<tr>
<th>Inactivated Polio Vaccine (IPV) Adult Schedule for Persons ≥19 Years of Age¹</th>
<th>DOSE 0.5 ml</th>
<th>PRIMARY SCHEDULE²,³</th>
<th>ACCELERATED SCHEDULE for HIGH-RISK PERSONS⁴,⁵</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1–2 months from dose 1 to 2</td>
<td>4 weeks from dose 1 to 2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>6–12 months from dose 2 to 3</td>
<td>4 weeks from dose 2 to 3</td>
<td></td>
</tr>
</tbody>
</table>

¹ Routine polio vaccination of persons ≥19 years of age who reside in the U.S. is not necessary due to childhood immunity and minimal exposure risks. However, IPV is recommended for certain adults at an **INCREASED RISK OF EXPOSURE TO POLIO** (e.g., international travelers, laboratory workers, healthcare personnel caring for polio cases, and contacts of cases during an outbreak)

² The **primary** IPV series recommended for high-risk unvaccinated adults (with or without written record) is 2 doses separated by 1–2 months, and a 3rd dose 6–12 months after 2nd dose.

³ If previously completed a primary series of ≥3 doses, 1 more IPV dose can be given if high-risk.

⁴ If 8 weeks are available before protection is needed, 3 doses 4 weeks apart are recommended. If 4–8 weeks are available before protection is needed, 2 doses should be given 4 weeks apart.

⁵ If <4 weeks are available before protection needed, one dose of IPV is recommended. In all cases, the remaining doses should be given later at recommended intervals.
### IV. CONTRAINDICATIONS

| A. Serious allergic or anaphylactic reaction (hives, swelling of the mouth and throat, difficulty breathing, hypotension, and shock) to a previous dose of IPV or its components, including formaldehyde, streptomycin, neomycin, or polymyxin B. |

### V. PRECAUTIONS

| A. Vaccination with IPV should be deferred during a moderate or severe illness (with or without fever) until symptoms have resolved. |
| B. Pregnancy: If immediate protection against poliomyelitis is needed, IPV may be administered. Otherwise, vaccination of pregnant women should be avoided. |
| C. Immunodeficient persons may receive IPV vaccine, though due to their immune status, only partial protection may be conferred. |

### VI. SIDE EFFECTS AND ADVERSE REACTIONS

| A. Minor local reactions (pain, redness) may occur following IPV. |
| B. No serious side effects have been documented. |
VII. OTHER CONSIDERATIONS

A. Post-Polio Syndrome
   After an interval of 30-40 years, 25%-40% of persons who contract paralytic poliomyelitis in childhood may experience muscle pain and exacerbation of existing weakness or develop new weakness or paralysis. This disease entity, which is referred to as post-polio syndrome, has been reported only in persons infected during the era of wild poliovirus circulation. This is not an infectious process, and persons experiencing the syndrome do not shed poliovirus. Risk factors for post-polio syndrome include a) increasing length of time since acute poliovirus infection, b) presence of permanent residual impairment after recovery from the acute illness, and c) females are more likely to develop post-polio syndrome. For further information contact:
   i. International Polio Network; 5100 Oakland Avenue, #206; St. Louis, MO 63110-1406; (314) 534-0475. ok
   ii. March of Dimes; Birth Defects Foundation; 1275 Mamaroneck Avenue; White Plains, NY 10605; (914) 428-7100. Provides resource referrals only
   iii. Katheryne Hoffman, M.D.; Roosevelt Warm Springs Institute; (706) 655-5301. P.O. Box 1000; 6135 Roosevelt Highway, Warm Springs, GA 31830
   Admission criteria: (706-655-5432) Warm Springs, Ga. 31830; (2012)

B. For someone with a history of fainting with injections, a 15-minute post-immunization observational period is recommended.

C. Vaccination of Internationally Adopted Children:
   - The recommended approach is to revaccinate adopted children with IPV according to the US schedule.
   - Alternative approaches are to order serologic testing for neutralizing antibody to poliovirus types 1, 2, and 3 or to administer a single dose of IPV, followed by serologic testing,
   - Children with protective titers against all three types do not need revaccination.

D. Hematopoietic stem cell transplant (HSCT) recipients
   - Revaccination with IPV is recommended at 12, 14, and 24 months after HSCT. (AAP Red Book 28th Edition, 2009; p. 80). Available at: http://aapredbook.aappublications.org/current.dtl
VIII. STORAGE AND HANDLING

Parenteral drug products should be inspected visually for either particulate matter or discoloration prior to administration. If either of these is seen, the vaccine should not be administered.

The vaccine is a clear, colorless solution. Store at 2-8°C (36-46°F) **Do not freeze.**

IX. ADVERSE EVENTS REPORTING

Adverse events following immunization must be reported to the Vaccine Adverse Events Reporting System (VAERS) at 1-800-822-7967. Forms and procedures can be found at the VAERS website: [www.vaers.hhs.gov](http://www.vaers.hhs.gov). In addition, a copy of the reporting form should be reported to the patient’s primary provider, per Oregon Revised Statute (ORS) 855-019-0280(4).

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Event</th>
<th>Time Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPV</td>
<td>Paralytic polio in a vaccine-associated community case</td>
<td>No limit</td>
</tr>
<tr>
<td></td>
<td>Vaccine-strain Polio viral infection in a vaccine-associated community case</td>
<td>No limit</td>
</tr>
<tr>
<td>IPV</td>
<td>Anaphylaxis or anaphylactic shock</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>Any sequelea, including death, of the above events</td>
<td>No limit</td>
</tr>
<tr>
<td></td>
<td>Events described in the manufacturer’s package insert as contraindications to additional doses of vaccine</td>
<td>See package insert</td>
</tr>
</tbody>
</table>
REFERENCES


2. CDC. Updated Recommendations of the Advisory Committee on Immunization Practices (ACIP) Regarding Routine Poliovirus Vaccination. MMWR 2009; 58 (30): 829–830. Available at: [www.cdc.gov/mmwr/preview/mmwrhtml/mm5830a3.htm?s_cid=mm5830a3_e](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5830a3.htm?s_cid=mm5830a3_e)


To request this material in an alternative format (e.g., Braille) or to clarify any part of the above order, contact the Oregon Health Authority Immunization Program at 971.673.0300. For other questions, consult with the vaccine recipient’s primary health care provider or a consulting physician.

Electronic copy of this protocol available at: [http://1.usa.gov/PharmacyImmunizationProtocols](http://1.usa.gov/PharmacyImmunizationProtocols)