### U.S. Influenza Vaccine Products for the 2018-19 Season

#### Trivalent (IIV3) Inactivated Influenza Vaccines

<table>
<thead>
<tr>
<th>Vaccine, Manufacturer</th>
<th>Recommended Age</th>
<th>Dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afluria, Seqirus</td>
<td>≥5 yrs</td>
<td>0.5 mL IM</td>
</tr>
<tr>
<td>Fluar, Seqirus (alIV3)</td>
<td>≥65 years</td>
<td>0.5 mL IM</td>
</tr>
<tr>
<td>Fluzone High-Dose, Sanofi Pasteur (HD-IIV3)</td>
<td>≥65 years</td>
<td>0.5 mL IM</td>
</tr>
</tbody>
</table>

#### Quadrivalent (IIV4s) Inactivated Influenza Vaccines

Same components as trivalent vaccine above; and, a B/Phuket/3073/2013-like virus (Yamagata lineage)

<table>
<thead>
<tr>
<th>Vaccine, Manufacturer</th>
<th>Recommended Age</th>
<th>Dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluarix Quadrivalent, GlaxoSmithKline</td>
<td>≥6 months</td>
<td>0.5 mL IM</td>
</tr>
<tr>
<td>FluLaval Quadrivalent, ID Biomedical Corp. of Quebec</td>
<td>≥6 months</td>
<td>0.5 mL IM</td>
</tr>
<tr>
<td>Fluzone Quadrivalent, Sanofi Pasteur</td>
<td>6-35 months</td>
<td>0.25 mL IM</td>
</tr>
<tr>
<td>≥3 yrs</td>
<td>0.5 mL IM</td>
<td></td>
</tr>
<tr>
<td>Flucelvax Quadrivalent, Seqirus</td>
<td>≥4 yrs</td>
<td>0.5 mL IM</td>
</tr>
<tr>
<td>≥5 yrs</td>
<td>0.5 mL IM</td>
<td></td>
</tr>
<tr>
<td>18-64 years only</td>
<td>Pharmajet Stratis Jet injector</td>
<td></td>
</tr>
</tbody>
</table>

#### Quadrivalent Recombinant Influenza Vaccine (RIV4)

<table>
<thead>
<tr>
<th>Vaccine, Manufacturer</th>
<th>Recommended Age</th>
<th>Dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flublok Quadrivalent, Sanofi Pasteur</td>
<td>≥18 yrs</td>
<td>0.5 mL IM</td>
</tr>
</tbody>
</table>

#### Live Attenuated Influenza Vaccine (LAIV4)

<table>
<thead>
<tr>
<th>Vaccine, Manufacturer</th>
<th>Recommended Age</th>
<th>Dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>FluMist Quadrivalent, AstraZeneca</td>
<td>2 – 49 years (healthy, non-pregnant)</td>
<td>0.2 mL intranasal (0.1 mL in each nostril)</td>
</tr>
</tbody>
</table>

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**Advisory Committee on Immunization Practices (ACIP) General Recommendations**

- Offer vaccination during routine health care visits and hospitalizations to prevent missed opportunities for vaccination.
- All persons aged ≥6 months should receive an annual influenza vaccination unless contraindicated.
- The ACIP recommends the use of LAIV during the 2018 – 19 influenza season.
- Persons with a history of egg allergy of any severity may receive any licensed, recommended, and age-appropriate influenza vaccine (IIV, RIV4, or LAIV4). IIV and RIV4 have been previously recommended (See Figure 1).
- Children aged 6 months through 8 years receiving influenza vaccine for the first time should receive two doses at least 4 weeks apart (See Figure 2).
- Per California Law, pregnant women and children under 3 years should receive preservative-free influenza vaccine. Flu vaccine supplied in multidose vials should not be used for this population.
**Persons at Increased Risk for Medical Complications Attributable to Influenza:**

- All children aged 6 through 59 months
- Persons aged ≥50 years
- Persons who have chronic pulmonary (including asthma), cardiovascular (except hypertension), renal, hepatic, neurologic, hematologic, or metabolic disorders (including diabetes mellitus)
- Persons who are immunosuppressed (including immunosuppression caused by medications or HIV)
- Pregnant women or women who will be pregnant during the influenza season
- Children and adolescents 6 months-18 years who are receiving long-term aspirin therapy
- Residents of nursing homes and other long-term care facilities;
- American Indians/Alaska Natives; and
- Persons who are extremely obese (body mass index ≥40).

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>IIV, RIV</th>
<th>LAIV</th>
</tr>
</thead>
</table>
| **Contraindications**¹ | • History of severe allergic reaction to any vaccine component  
• Children <6 months of age | • History of severe allergic reaction to any component to the vaccine or after a previous dose of any flu vaccine  
• Concomitant aspirin or salicylate-containing therapy in children and adolescents  
• Children aged 2 through 4 years who have asthma or who have had a wheezing episode noted in the medical record within the past 12 months, or for whom parents report that a health care provider stated that they had wheezing or asthma  
• Persons who are immunosuppressed (including immunosuppression caused by medications or HIV)  
• Close contacts and caregivers of severely immunosuppressed persons who require a protected environment;  
• Pregnancy  
• Receipt of influenza antiviral medication within previous 48 hours |
| **Precautions**¹ | • Development of Guillain-Barré within 6 weeks of receiving a flu vaccine previously  
• Moderate to severe illness with or without a fever | • Moderate or severe illness with or without fever  
• History of Guillain – Barré within 6 weeks of receiving influenza vaccine  
• Asthma in persons ≥5 years  
• Other underlying medical conditions that might predispose to complications after influenza infection (e.g. chronic pulmonary, cardiovascular (except hypertension), renal, hepatic, neurologic, hematologic, or, metabolic disorders, including diabetes) |
| **Adverse Reactions**²⁻¹⁰ | • **Injection site:** pain redness, swelling  
• **Systemic:** fever, aches, headache, fatigue (usually begin soon after the shot and last 1-2 days), itching, bruising, irritability, abnormal crying, appetite loss, vomiting, drowsiness | Children and adolescents aged 2-17 years of age have reported:  
• Runny nose, nasal congestion or cough  
• Fever, headache and muscle aches  
• Wheezing  
• Abdominal pain or occasional vomiting or diarrhea  
Some adults 18-49 years of age have reported:  
• Runny nose or nasal congestion  
• Sore throat  
• Cough, chills, tiredness/weakness  
• Headache |

For more information, please visit the Los Angeles County Vaccine Preventable Disease Program’s website www.publichealth.lacounty.gov/ip/index.htm or call (213) 351-7800 for more information
Adapted from 2018-19 ACIP Influenza Vaccine Recommendations for Persons Who Report Allergy to Eggs. §§ Persons with a history of severe allergic reaction to eggs (i.e. any symptoms other than hives) should be vaccinated in an inpatient or outpatient medical setting (including but not necessarily limited to hospitals, clinics, health departments, and physician offices), under the supervision of a health care provider who is able to recognize and manage severe allergic conditions.

**Figure 2: Influenza vaccine dosing algorithm for children 6 months – 8 years**

**ACIP- United States, 2018 – 19 Influenza Season**

Has the child received ≥2 total doses of trivalent or quadrivalent influenza vaccine before July 1, 2018?*

* The two doses need not have been received during the same season or consecutive seasons

- **Yes**
  - 1 dose of 2018-19 influenza vaccine

- **No/Don’t Know**
  - 2 doses of 2018-19 influenza vaccine (administered ≥4 weeks apart)*
References