This statement updates the recommendations of the American Academy of Pediatrics for the routine use of influenza vaccine and antiviral medications in the prevention and treatment of influenza in children during the 2023–2024 influenza season. A detailed review of the evidence supporting these recommendations is published in the accompanying technical report (www.pediatrics.org/cgi/doi/10.1542/peds.2023-063773). The American Academy of Pediatrics recommends annual influenza vaccination of all children without medical contraindications starting at 6 months of age. Children are at risk for hospitalization and death from influenza. Influenza vaccination is an important strategy for protecting children and the broader community, as well as reducing the overall burden of respiratory illnesses when other viruses are cocirculating. Any licensed influenza vaccine appropriate for age and health status can be administered, ideally as soon as possible in the season, without preference for one product or formulation over another.

Antiviral treatment of influenza is recommended for children with suspected (e.g., influenza-like illness [fever with either cough or sore throat]) or confirmed influenza who are hospitalized, have severe or progressive disease, or have underlying conditions that increase their risk of complications of influenza, regardless of duration of illness. Antiviral treatment should be initiated as soon as possible. Antiviral treatment may be considered in the outpatient setting for symptomatic children with suspected or confirmed influenza disease who are not at high risk for influenza complications, if treatment can be initiated within 48 hours of illness onset. Antiviral treatment may also be considered for children with suspected or confirmed influenza disease whose siblings or household contacts either are younger than 6 months or have a high-risk condition that predisposes them to complications of influenza. Antiviral chemoprophylaxis is recommended for the prevention of influenza virus infection as an adjunct to vaccination in certain individuals, especially exposed children who are at high risk for influenza complications but have not yet been immunized or those who are not expected to mount an effective immune response.
INTRODUCTION

Children consistently have the highest attack rates of influenza in the community during seasonal influenza epidemics. Children, especially those younger than 5 years and those with certain underlying medical conditions, can experience substantial morbidity, including severe or fatal complications, from influenza virus infection. A higher risk of influenza hospitalization before 5 years of age has been noted in children born preterm (<37 weeks’ gestation) or near term (37–38 weeks’ gestation). School-aged children bear a large influenza disease burden and are more likely to receive influenza-related medical care compared with healthy adults. Influenza vaccination of children not only reduces disease burden among children, but also among household and community members of all ages. By reducing the burden of respiratory illnesses, influenza vaccination helps to preserve health care capacity, especially when other viruses are cocirculating. The American Academy of Pediatrics (AAP) recommends routine influenza vaccination and use of antiviral agents for the prevention and treatment of influenza in children, respectively. Unfortunately, influenza vaccination coverage continued to lag during the 2022–2023 influenza season. Through April 15, 2023, only 55.1% of children 6 months through 17 years had been vaccinated. Although overall estimates are comparable to those in the 2021–2022 influenza season, coverage levels are 7.1 percentage points lower than at the start of the coronavirus disease 2019 (COVID-19) pandemic (April 2020). Disparities in immunization rates persist: Vaccination coverage is lower for non-Hispanic Black children (51%) compared with non-Hispanic white children (53.6%), Hispanic children (58%), and children whose race was reported as other, non-Hispanic race/ethnicity (60%; includes Asian, American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, multiracial, and children whose parents reported their race as “other”). In addition, coverage levels were markedly lower among children residing in rural versus suburban or urban areas (41.1% vs 55.3% vs 59.8%, respectively). Efforts to increase influenza vaccination, including strategies to decrease disparities in access to vaccine and credible vaccine information and counter vaccine hesitancy, are urgently needed.

This policy statement summarizes updates and recommendations for the 2023–2024 influenza season. An accompanying technical report provides further detail regarding recent influenza seasons, influenza vaccine effectiveness, detailed discussion of inactivated and live-attenuated influenza vaccines (LAIV), vaccine storage, vaccination coverage, timing of vaccination, duration of protection, and vaccine delivery strategies.

UPDATES FOR THE 2023–2024 INFLUENZA SEASON

1. The composition of the influenza vaccines for the 2023–2024 season has been updated (Table 1).

2. Recommendations for influenza vaccination of immunocompromised hosts are clarified.

3. Recommendations for improving access to influenza vaccine are emphasized.

4. Indications for influenza testing are highlighted, including a discussion of at-home testing.

TABLE 1 Quadrivalent Influenza Vaccine Composition for the 2023–2024 Season

<table>
<thead>
<tr>
<th>Specific Strain</th>
<th>Specific Strain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza A</td>
<td></td>
</tr>
<tr>
<td>H1N1</td>
<td>A/Victoria/4897/2022 (H1N1)pdm09-like virus; (egg-based)*</td>
</tr>
<tr>
<td></td>
<td>A/Wisconsin/67/2022 (H1N1)pdm09-like virus; (cell culture-based or recombinant)*</td>
</tr>
<tr>
<td>H3N2</td>
<td>A/Darwin/9/2021 (H3N2)-like virus; (egg-based)</td>
</tr>
<tr>
<td></td>
<td>A/Darwin/5/2021 (H3N2)-like virus; (cell culture-based or recombinant)</td>
</tr>
<tr>
<td>Influenza B</td>
<td></td>
</tr>
<tr>
<td>Victoria</td>
<td>B/Austria/1539417/2021-like virus; (B/Victoria lineage)</td>
</tr>
<tr>
<td>Yamagata</td>
<td>B/Phuket/3075/2013-like virus (B/Yamagata lineage)</td>
</tr>
</tbody>
</table>

Trivalent vaccines (not available in the United States) do not include the B/Yamagata component.

a. New this season.

b. Unchanged this season.
Thus, influenza vaccination should not be delayed to obtain a specific product.

All 2023–2024 seasonal influenza vaccines are quadrivalent and contain hemagglutinin derived from the same influenza strains as recommended by the World Health Organization’s and the US Food and Drug Administration’s Vaccines and Related Biological Products Advisory Committee for the Northern Hemisphere (Table 1).5,7 The influenza A (H1N1) vaccine component for the 2023–2024 season is different this year, whereas the influenza A (H3N2), influenza B Victoria lineage, and influenza B Yamagata lineage components are unchanged. Different, but antigenically related, influenza A strains are included in this season’s egg-based and cell-based or recombinant vaccines. They are matched to the strains expected to circulate in the 2023–2024 season.

### INFLUENZA VACCINE RECOMMENDATIONS

1. The AAP recommends influenza vaccination of every one 6 months and older, including children and adolescents, during the 2023–2024 influenza season.

2. The AAP recommends any licensed influenza vaccine product appropriate for age and health status and does not prefer one product over another, including IIV and LAIV. Recombinant influenza vaccine (RIV) is another option for persons ≥18 years of age. Providers may administer whichever product is appropriate and readily available to capture all opportunities for influenza vaccination and achieve the highest possible coverage this season.

3. LAIV should not be used for immunocompromised persons and persons with some chronic medical conditions (Table 5).

4. The number of influenza vaccine doses recommended for children remains unchanged in the 2023–2024 influenza season and depends on the child’s age at first dose administration and influenza vaccination history (Fig 1). Children 6 months through 8 years of age who are receiving influenza vaccine for the first time, who received only 1 dose before July 1, 2023, or whose vaccination status is unknown should receive 2 doses of influenza vaccine at least 4 weeks apart. Doses given up to 4 days before the minimum suggested interval should be regarded as acceptable. All other children should receive 1 dose this season. For children aged 8 years who require 2 doses of influenza vaccine, both doses should be administered even if the child turns age 9 years between dose 1 and dose 2.

5. The total number of full doses appropriate for age should be administered. If a child is inadvertently vaccinated with a formulation only approved for older children or adults, the dose should be counted as valid. If a lower dose than recommended is inadvertently administered to a child 36 months or older.

### SEASONAL INFLUENZA VACCINES

The seasonal influenza vaccines licensed for children for the 2023–2024 season are shown in Table 4. More than one product may be appropriate for a given patient, and there is no preference for one product over another.
(eg, 0.25 mL), an additional 0.25-mL dose should be administered to provide a full dose of 0.5 mL as soon as possible. A 0.5-mL dose of any IIV should not be split into 2 separate 0.25-mL doses.

6. When a child is recommended to receive 2 doses of vaccine in a given season, the doses do not need to be the same brand. A child may receive a combination of IIV and LAIV if appropriate for age and health status.

7. Influenza vaccine should be offered to children as soon as it becomes available, especially to those recommended to receive 2 doses. The recommended dose(s) ideally should be received by the end of October for optimal protection before the influenza season begins. Most adults, particularly those ≥65 years and pregnant persons in the first or second trimester, should not be immunized in July and August because of a concern about waning immunity. Influenza vaccination efforts should continue throughout the season.

8. IIV (or RIV if age-appropriate) may be administered simultaneously with or at any time before or after other inactivated or live vaccines. LAIV may be administered simultaneously with other live or inactivated vaccines, including COVID-19 vaccines. If not administered simultaneously, ≥4 weeks should pass between the administration of LAIV and other nonoral live vaccines. A 4-day grace period is permitted.

9. For children with malignant neoplasms, the optimal time to provide IIV is not well defined, but generally, vaccine should be administered ≥2 weeks before cytotoxic chemotherapy when clinically possible.

10. For children who have received anti-B cell therapies in the previous 6 months, IIV should not be deferred until there is evidence of B cell recovery. Household contacts of these immunocompromised individuals should receive influenza vaccine annually.

11. For hematopoietic stem cell recipients, IIV can be given starting 4 to 6 months after transplantation. For solid organ transplant (SOT) recipients, IIV can be given beginning at 3 months after receipt of an SOT, although it may be considered ≥1 month after receipt of an SOT during the influenza season.

12. Pregnant individuals may receive IIV (or RIV if age-appropriate) at any time during pregnancy to protect themselves and their infants. Those who do not receive it during pregnancy should receive influenza vaccine before hospital discharge. Influenza vaccination is safe for the breastfeeding parent and infant.

13. Pediatricians who interact with pregnant individuals should recommend influenza vaccination, emphasizing the benefits of vaccination for them and their infants.

14. Individuals in the postpartum period who did not receive influenza vaccine during pregnancy should be offered influenza vaccination before hospital discharge. Those who decline the vaccine during hospitalization should be encouraged to discuss influenza vaccination with their obstetrician, family physician,
TABLE 4 Recommended Seasonal Influenza Vaccines for Children and Adolescents: United States, 2023–2024 Influenza Season

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Trade Name (Manufacturer)</th>
<th>Age Group</th>
<th>Presentation and Hemagglutinin Antigen Content (IIVs and RIV4) or Virus Count (LAIV4) Per Dose for Each Antigen</th>
<th>Recommended Dose</th>
<th>Thimerosal Mercury Content* (µg Hg/0.5-mL Dose)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IIV4</td>
<td>Afluria ( Seqirus)</td>
<td>≥6–35 mo</td>
<td>5.0-mL multidose vial* (15 µg/0.5 mL)</td>
<td>0.25 mL</td>
<td>24.5</td>
</tr>
<tr>
<td></td>
<td>Quadrivalent</td>
<td>≥6–35 mo</td>
<td>5.0-mL multidose vial* (15 µg/0.5 mL)</td>
<td>0.5 mL</td>
<td>24.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>≥36 mo</td>
<td>0.5-mL prefilled syringe (15 µg/0.5 mL)</td>
<td>0.5 mL</td>
<td>0</td>
</tr>
<tr>
<td>IIV4</td>
<td>Fluarix (GlaxoSmithKline)</td>
<td>≥6 mo</td>
<td>0.5-mL prefilled syringe (15 µg/0.5 mL)</td>
<td>0.5 mL</td>
<td>0</td>
</tr>
<tr>
<td>IIV4</td>
<td>FluLaval (GlaxoSmithKline)</td>
<td>≥6 mo</td>
<td>0.5-mL prefilled syringe (15 µg/0.5 mL)</td>
<td>0.5 mL</td>
<td>0</td>
</tr>
<tr>
<td>IIV4</td>
<td>Fluzone (Sanofi Pasteur)</td>
<td>≥6–35 mo</td>
<td>0.5-mL single-dose vial† (15 µg/0.5 mL)</td>
<td>0.25 or 0.5 mL</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>≥36 mo</td>
<td>0.5-mL single-dose vial† (15 µg/0.5 mL)</td>
<td>0.5 mL</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6–35 mo</td>
<td>5.0-mL multidose vial* (15 µg/0.5 mL)</td>
<td>0.25 or 0.5 mL</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>≥36 mo</td>
<td>5.0-mL multidose vial* (15 µg/0.5 mL)</td>
<td>0.5 mL</td>
<td>25</td>
</tr>
<tr>
<td>IV4</td>
<td>Quadrivalent standard dose: Cell culture-based vaccines</td>
<td>cccIIV4</td>
<td>Fluelsevac (Seqirus) ≥6 mo</td>
<td>0.5-mL prefilled syringe (15 µg/0.5 mL)</td>
<td>0.5 mL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>≥6 mo</td>
<td>5.0-mL multidose vial* (15 µg/0.5 mL)</td>
<td>0.5 mL</td>
<td>25</td>
</tr>
<tr>
<td>RIV4</td>
<td>Flublok (Sanofi Pasteur)</td>
<td>≥18 y</td>
<td>0.5-mL prefilled intranasal sprayer (virus dose: 10^6–7.5 FFU/0.2 mL)</td>
<td>0.5 mL</td>
<td>25</td>
</tr>
<tr>
<td>LAIV4</td>
<td>FluMist Quadrivalent</td>
<td>2–49 y</td>
<td>0.2-mL prefilled intranasal sprayer (virus dose: 10^6–7.5 FFU/0.2 mL)</td>
<td>0.2 mL</td>
<td>0</td>
</tr>
</tbody>
</table>


* Thimerosal-containing vaccines in the technical report.†

† The dose is 0.25 mL for children 6 through 35 months of age and 0.5 mL for children 5 years and older.

‡ For vaccines that include a multidose vial presentation, the maximum number of doses drawn should not exceed the number specified in the package insert (eg, 10 doses for Fluzone, 20 doses for Afluria). Residual product should be discarded.

§ A total of 0.25 mL drawn from a single multidose vial is an acceptable dose for children 6 to 35 months of age.

‖ Single-dose vials should be used for only 1 dose (0.25 mL or 0.5 mL). Residual product remaining in the vial should be discarded.

15. Individuals traveling to the tropics, on cruise ships, or to the Southern Hemisphere during April to September should consider influenza vaccination ≥2 weeks before departure if not vaccinated during the preceding fall or winter and if vaccine is available.

16. Efforts should be made to promote influenza vaccination of all children, especially in children younger than 5 years and those in high-risk groups (Table 2) and their contacts, unless contraindicated (Table 5). To promote influenza vaccination in communities affected by health disparities, it is important to include community members in the development of culturally relevant strategies. Evidence-based strategies for increasing influenza vaccine uptake are presented in Table 3.

17. Increasing access and reducing barriers to vaccination in schools, pharmacies, and other nontraditional settings could improve vaccination rates, although vaccination in the medical home is optimal for young children to facilitate other necessary services, including well care, preventive screening, anticipatory guidance, and other important childhood vaccinations. When influenza vaccination takes place in a nontraditional setting, appropriate documentation should be provided to patients and to the medical home. Settings that offer influenza vaccination should submit details about the vaccination to the appropriate immunization information systems (IISs), including all content needed to support communication of this information to the patient’s medical home.

18. Practices serving children and adolescents may consider offering influenza vaccine to family members and close contacts.

19. Efforts should be made to eliminate disparities in influenza vaccine supply between privately insured patients and their contacts.©
and those eligible for vaccination through the Vaccines for Children program.

20. Public and private payers should offer adequate payment for influenza vaccine supply and administration to pediatric populations, update payments for influenza vaccines to reflect the increased costs of administration in July and August, and eliminate remaining "patient responsibility" cost barriers to influenza vaccination where they still exist.


INFLUENZA VACCINE CONTRAINDICATIONS AND PRECAUTIONS

Contraindications and precautions for the use of influenza vaccines are described in Table 5, and further details are provided in the technical report. Key points include:

1. Product-specific contraindications must be considered when selecting the type of influenza vaccine to administer.

2. Although a history of severe allergic reaction (eg, anaphylaxis) to any influenza vaccine is generally a contraindication to future receipt of influenza vaccines, children who have had a severe allergic reaction after influenza vaccination should be evaluated by an allergist to help identify the vaccine component responsible for the reaction and to determine whether future vaccine receipt is appropriate. Children who are allergic to gelatin (very rare) should receive IIV (or RIV if age-appropriate) instead of LAIV.

3. Children with egg allergy can receive any influenza vaccine without any additional precautions beyond those recommended for all vaccines.

4. Children with acute moderate or severe illness, including COVID-19, may receive influenza vaccine as soon as their condition improves.

TABLE 5 Influenza Vaccine Contraindications and Precautions

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Contraindication</th>
<th>Precaution</th>
<th>Provider Discretion</th>
<th>Not Contraindication or Precaution</th>
</tr>
</thead>
<tbody>
<tr>
<td>IIVa</td>
<td>Anaphylaxis or severe allergic reaction to previous influenza vaccination</td>
<td>Moderate to severe illness, including COVID-19</td>
<td>• Mild illness, with or without fever</td>
<td>• History of Guillain-Barre syndrome within 6 wk of previous influenza vaccination</td>
</tr>
<tr>
<td></td>
<td>Anaphylaxis or severe allergic reaction to previous influenza vaccination</td>
<td>History of Guillain-Barre syndrome within 6 wk of previous influenza vaccination</td>
<td>• Egg allergy</td>
<td></td>
</tr>
<tr>
<td>LAIV</td>
<td>Anaphylaxis or severe allergic reaction to previous influenza vaccination</td>
<td>Moderate to severe illness, including COVID-19</td>
<td>• Mild illness, with or without fever</td>
<td>• Active cerebrospinal fluid leaks</td>
</tr>
<tr>
<td></td>
<td>Allergy to gelatin</td>
<td>History of Guillain-Barre syndrome within 6 wk of previous influenza vaccination</td>
<td>• Egg allergy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Age 2–4 y with diagnosis of asthma or history of wheezing in last 12 mo</td>
<td>Diagnosis of asthma and age ≥5 y</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cochlear implants</td>
<td>Certain underlying chronic conditions that might predispose to complications after influenza (eg, chronic pulmonary disease, cardiovascular disease, and renal, hepatic, neurologic, hematologic, or metabolic disorders)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Defer to resolution of symptoms or use IIV if a patient has nasal congestion that could impede vaccine delivery.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RIV4</td>
<td>Anaphylaxis or severe allergic reaction to previous dose of RIV4 or any component of RIV4</td>
<td>Moderate to severe illness, including COVID-19</td>
<td>• Mild illness, with or without fever</td>
<td>• History of Guillain-Barre syndrome within 6 wk of previous influenza vaccination</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Egg allergy</td>
<td></td>
</tr>
</tbody>
</table>

HA, hemagglutinin; RIV4, recombinant influenza vaccine. a IIVs for children include Afluria Quadrivalent, Fluarix Quadrivalent, FluLaval Quadrivalent, Fluzone Quadrivalent, and Flucelvax quadrivalent.

b Within 48 hours (oseltamivir; zanamivir), 5 days (peramivir), or 17 days (baloxavir) of stopping influenza antiviral therapy.

1. Product-specific contraindications must be considered when selecting the type of influenza vaccine to administer.

2. Although a history of severe allergic reaction (eg, anaphylaxis) to any influenza vaccine is generally a contraindication to future receipt of influenza vaccines, children who have had a severe allergic reaction after influenza vaccination should be evaluated by an allergist to help identify the vaccine component responsible for the reaction and to determine whether future vaccine receipt is appropriate. Children who are allergic to gelatin (very rare) should receive IIV (or RIV if age-appropriate) instead of LAIV.

3. Children with egg allergy can receive any influenza vaccine without any additional precautions beyond those recommended for all vaccines.

4. Children with acute moderate or severe illness, including COVID-19, may receive influenza vaccine as soon as their condition improves.
INFLUENZA TESTING

1. Influenza testing should be performed in children with signs and symptoms of influenza when test results are anticipated to impact clinical management (eg, to inform the decision to initiate antiviral therapy, pursue other diagnostic testing, initiate infection prevention and control measures, or distinguish from other respiratory viruses with similar symptoms [eg, severe acute respiratory syndrome coronavirus 2]).

2. When influenza is circulating in the community, hospitalized patients with signs and symptoms of influenza should be tested with a molecular assay with high sensitivity and specificity (eg, reverse-transcription polymerase chain reaction).

3. At-home tests are available for children as young as 2 years of age but data on the use of these tests in pediatric patients is limited. The use of at-home test results to inform treatment decisions should be informed by the sensitivity and specificity of the test, the prevalence of influenza in the community, the presence and duration of compatible signs and symptoms, and individual risk factors and comorbidities.

INFLUENZA TREATMENT RECOMMENDATIONS

Antiviral medications available for the treatment and prophylaxis of influenza in children are described in Table 6. Key points include:

1. Antiviral medications are an important adjunct in the control of influenza but are not a substitute for influenza vaccination. Providers should promptly identify patients suspected of having influenza for timely initiation of antiviral treatment, when indicated and based on shared decision-making between the provider and child’s caregiver, to reduce morbidity and mortality. Potential benefits and harms of antiviral treatment are summarized in the technical report ([www.pediatrics.org/cgi/doi/10.1542/peds.2023-063773] see section “Rationale for Influenza Treatment in Children”).

2. Oseltamivir is the preferred antiviral medication for patients with influenza A and B because of the cumulative experience of this drug in children, relative cost, and ease of administration.

3. Although best results are observed when the child is treated within 48 hours of symptom onset, antiviral therapy should still be considered beyond 48 hours in certain cases (see below).

4. Antiviral treatment should be offered as early as possible to the following individuals, regardless of influenza vaccination status and duration of symptoms:
   - Any child hospitalized with suspected or confirmed influenza disease
   - Any child with severe, complicated, or progressive influenza disease, regardless of health care setting (ie, inpatient or outpatient)
   - Any child with suspected or confirmed influenza disease of any severity if they are at high risk for influenza complications, regardless of health care setting (ie, inpatient or outpatient) (Table 2)

5. Develop systems that enable patients to quickly access treatment near the onset of symptoms.

6. Treatment may be considered for the following individuals in the outpatient setting, after discussing benefits and risks with parents/guardians:
   - Any child with suspected or confirmed influenza disease who is not at high risk for influenza complications, if treatment can be initiated within 48 hours of illness onset
   - Any child with suspected or confirmed influenza disease whose siblings or household contacts are either younger than 6 months or at high risk for influenza complications (Table 2)

7. Initiation of antiviral therapy should be based on signs and symptoms consistent with influenza infection and...
TABLE 6 Recommended Dosage and Schedule of Influenza Antiviral Medications for Treatment and Chemoprophylaxis in Children for the 2023–2024 Influenza Season: United States

<table>
<thead>
<tr>
<th>Medication</th>
<th>Treatment</th>
<th>Chemoprophylaxis</th>
<th>Duration After Last Exposure</th>
<th>Common Adverse Events</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oseltamivir</strong>&lt;sup&gt;a,b&lt;/sup&gt;</td>
<td>Adults 75 mg, twice daily</td>
<td>5 d</td>
<td>75 mg, once daily</td>
<td>7 d</td>
</tr>
<tr>
<td></td>
<td>Children ≥12 mo</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>≤15 kg</td>
<td>30 mg, twice daily</td>
<td>5 d</td>
<td>30 mg, once daily</td>
</tr>
<tr>
<td></td>
<td>&gt;15 kg–23 kg</td>
<td>45 mg, twice daily</td>
<td>5 d</td>
<td>45 mg, once daily</td>
</tr>
<tr>
<td></td>
<td>&gt;23 kg–40 kg</td>
<td>60 mg, twice daily</td>
<td>5 d</td>
<td>60 mg, once daily</td>
</tr>
<tr>
<td></td>
<td>&gt;40 kg</td>
<td>75 mg, twice daily</td>
<td>5 d</td>
<td>75 mg, once daily</td>
</tr>
<tr>
<td></td>
<td>Infants 9–11 mo&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3.5 mg/kg per dose, twice daily</td>
<td>5 d</td>
<td>3.5 mg/kg per dose, once daily</td>
</tr>
<tr>
<td></td>
<td>Term infants 6–8 mo&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3.0 mg/kg per dose, twice daily</td>
<td>5 d</td>
<td>3–5 mo: 3.0 mg/kg per dose, once daily</td>
</tr>
<tr>
<td></td>
<td>Preterm infants&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3.0 mg/kg per dose, twice daily</td>
<td>5 d</td>
<td>3–5 mo: 3.0 mg/kg per dose, once daily</td>
</tr>
<tr>
<td></td>
<td>Preterm infants&lt;sup&gt;2&lt;/sup&gt;</td>
<td>&lt;58 wk PMA</td>
<td>1.0 mg/kg per dose, twice daily</td>
<td>5 d</td>
</tr>
<tr>
<td></td>
<td>38–40 wk PMA</td>
<td>1.5 mg/kg per dose, twice daily</td>
<td>5 d</td>
<td>3–5 mo: 3.0 mg/kg per dose, once daily</td>
</tr>
<tr>
<td></td>
<td>&gt;40 wk PMA</td>
<td>3.0 mg/kg per dose, twice daily</td>
<td>5 d</td>
<td>3–5 mo: 3.0 mg/kg per dose, once daily</td>
</tr>
<tr>
<td><strong>Peramivir</strong>&lt;sup&gt;c&lt;/sup&gt;</td>
<td>Adults 10 mg (2 5-mg inhalations), twice daily</td>
<td>5 d</td>
<td>10 mg (2 5-mg inhalations), once daily</td>
<td>7 d</td>
</tr>
<tr>
<td></td>
<td>Children ≥7 y&lt;sup&gt;3&lt;/sup&gt;</td>
<td>10 mg (2 5-mg inhalations), twice daily</td>
<td>5 d</td>
<td>≤5 y, 10 mg (2 5-mg inhalations), once daily</td>
</tr>
<tr>
<td><strong>Baloxavir</strong>&lt;sup&gt;d&lt;/sup&gt;</td>
<td>Adults 1,400 mg, orally</td>
<td>N/A</td>
<td>Not recommended</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Children 6 mo–12 y</td>
<td>120 mg/kg/dose (600 mg maximum) via intravenous infusion over 15–30 min</td>
<td>N/A</td>
<td>Not recommended</td>
</tr>
<tr>
<td></td>
<td>13–17 y</td>
<td>1,600 mg, via intravenous infusion over 15–30 min</td>
<td>N/A</td>
<td>Not recommended</td>
</tr>
<tr>
<td></td>
<td>Individuals ≥5 y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>≤&lt;20 kg</td>
<td>2 mg/kg as single dose, orally</td>
<td>N/A</td>
<td>2 mg/kg as single dose, orally</td>
</tr>
<tr>
<td></td>
<td>20 kg–&lt;80 kg</td>
<td>1.4 mg/kg, orally</td>
<td>N/A</td>
<td>1.4 mg/kg, orally</td>
</tr>
<tr>
<td></td>
<td>≥80 kg</td>
<td>1.8 mg/kg, orally</td>
<td>N/A</td>
<td>1.8 mg/kg, orally</td>
</tr>
</tbody>
</table>

Sources: Infectious Diseases Society of America<sup>a</sup> and https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm. N/A: not applicable; PMA: postmenstrual age.

a Oseltamivir is administered orally without regard to meals, although administration with meals may improve gastrointestinal tolerability. Oseltamivir is available as a generic drug or as Tamiflu in 30 mg, 45 mg, and 75 mg capsules, and as a powder for oral suspension that is reconstituted to provide a final concentration of 6 mg/mL. For the 6 mg/mL suspension, a 30 mg dose is given with 5 mL of oral suspension, a 45 mg dose is given with 7.5 mL oral suspension, a 60 mg dose is given with 10 mL oral suspension, and a 75 mg dose is given with 12.5 mL oral suspension. If the commercially manufactured oral suspension is not available, a suspension can be compounded by retail pharmacies (final concentration also 6 mg/mL) on the basis of instructions contained in the package label. In patients with renal insufficiency, the dose should be adjusted on the basis of creatinine clearance. For treatment of patients with creatinine clearance 10–30 mL per minute: 75 mg, once daily, for 5 days. For chemoprophylaxis of patients with creatinine clearance 10–30 mL per min.: 30 mg, once daily, for 10 days after exposure; or 75 mg, once every other day, for 10 days after exposure (5 doses). See https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm and Infectious Diseases Society of America guidelines. These recommendations differ from the package insert for oseltamivir: https://www.accessdata.fda.gov/drugsatfda_docs/label/2012/02076b002bl.pdf.

b The Centers for Disease Control and Prevention recommends routine chemoprophylaxis with oseltamivir or zanamivir for 7 days after last known exposure; minimum of 14 days and continuing for 7 days after last known exposure if part of institutional outbreak (https://www.cdc.gov/professionals/antivirals/summary-clinicians.htm). This differs from the package insert for zanamivir, which recommends prophylaxis for 10 days in community settings and 28 days in community outbreaks (https://www.accessdata.fda.gov/drugsatfda_docs/label/2010/021036s025lbl.pdf).

c Approved by the US Food and Drug Administration for children as young as 2 weeks of age. Given preliminary pharmacokinetic data and limited safety data, oseltamivir can be used to treat influenza in both term and preterm infants from birth because benefits of therapy are likely to outweigh possible risks of treatment. Oseltamivir is not recommended for chemoprophylaxis for infants aged <3 months because of limited safety and efficacy data in this age group. Of note, the Centers for Disease Control and Prevention recommends a 3.0 mg/kg/dose, twice daily, for all infants aged <12 mo; the Infectious Diseases Society of America guidelines include both AAP and Centers for Disease Control and Prevention recommendations.

d Oseltamivir dosing for preterm infants. The weight-based dosing recommendation for preterm infants is lower than for term infants. Preterm infants may have lower clearance of oseltamivir because of immature renal function, and doses recommended for full-term infants may lead to very high drug concentrations in this age group. Limited data from the National Institute of Allergy and Infectious Diseases Collaborative Antiviral Study Group provide the basis for dosing preterm infants using their postmenstrual age (gestational age + chronologic age). For extremely preterm infants (<28 weeks), please consult a pediatric infectious disease physician.

e Zanamivir is administered by inhalation using a proprietary “Diskhaler” device distributed together with the medication. Zanamivir is a dry powder, not an aerosol, and should not be administered using nebulizers, ventilators, or other devices typically used for administering medications in aerosolized solutions. Zanamivir is not recommended for people with chronic respiratory diseases, such as asthma or chronic obstructive pulmonary disease, which increase the risk of bronchospasm.

f Peramivir requires dose adjustment in patients with renal insufficiency. For treatment of pediatric patients 6 months to 12 years of age: 2 mg/kg, if creatinine clearance 10–29 mL per minute; 4 mg/kg if creatinine clearance is 20 to 48 mL per minute. For treatment of adolescents 15 years and older; 100 mg if creatinine clearance 10–29 mL per minute; 200 mg if creatinine clearance is 20 to 48 mL per minute. (https://www.accessdata.fda.gov/drugsatfda_docs/label/2017/026425s004lbl.pdf).

g Oral baloxavir marboxil is approved by the US Food and Drug Administration for treatment of acute uncomplicated influenza within 2 days of illness. Baloxavir marboxil is not recommended as monotherapy for treatment of influenza in individuals who are severely immunocompromised, pregnant, or breastfeeding.

N/A: not applicable
epidemiologic factors. Provision of antiviral therapy does not require a positive test for influenza.

**INFLUENZA CHEMOPROPHYLAXIS RECOMMENDATIONS**

1. Oseltamivir is the preferred antiviral chemoprophylaxis for patients with influenza A and B.
2. Optimally, postexposure chemoprophylaxis should only be used when antiviral agents can be initiated within 48 hours of exposure.
3. Antiviral chemoprophylaxis is recommended after known or suspected influenza exposure in the following situations:
   - Any child at high risk for influenza complications for whom influenza vaccine is contraindicated or has not yet been administered this season
   - Any child at high risk for influenza complications who received influenza vaccine in the past 2 weeks (ie, optimal immunity may not yet be achieved)
   - Any child at high risk for influenza complications who has been vaccinated but may not have mounted a sufficient immune response (ie, because of immunosuppression)
   - Any child at high risk for influenza complications when influenza virus strains circulating in the community are not well matched with those of the seasonal influenza vaccine per the Centers for Disease Control and Prevention (https://www.cdc.gov/flu/vaccines-work/effectiveness-studies.htm)
   - Family members and close contacts of children at high risk for influenza complications, including health care personnel, when influenza virus strains circulating in the community are not well matched with those of the seasonal influenza vaccine per the Centers for Disease Control and Prevention
   - Family members and close contacts who are unvaccinated and are likely to have ongoing, close exposure to:
     - unvaccinated children at high risk for influenza complications; or
     - unvaccinated children who are younger than 24 months.
   - Family members and close contacts who are at high risk for influenza complications
   - Unvaccinated staff and children in a closed institutional setting with children at high risk for influenza complications (eg, extended-care facilities), to control influenza outbreaks

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ABBREVIATIONS
AAP: American Academy of Pediatrics
COVID-19: coronavirus disease 2019
IIV: inactivated influenza vaccine
LAIV: live attenuated influenza vaccine
SOT: solid organ transplant
RIV: recombinant influenza vaccine

REFERENCES
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