

Influenza: Prevention, Diagnosis, and Treatment

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Influenza is typically a self-limiting viral infection that causes symptoms such as fever, chills, cough, rhinitis, headache, sweats, myalgias, and malaise. However, serious illness and complications (eg, pneumonia, death) can occur, particularly in individuals with risk factors. Annual influenza vaccination is recommended for people 6 months and older, including pregnant individuals, who do not have a contraindication to the vaccine. Rapid diagnosis of influenza using point-of-care testing in select patients increases antiviral prescribing and decreases antibiotic prescribing in those with a positive result. However, a negative rapid test result does not exclude influenza. Although most patients do not require treatment for influenza, antivirals should be initiated as soon as possible for patients who are hospitalized, have severe or progressive illness, or are at high risk of complications. Treatment can be considered in symptomatic patients who are household contacts of individuals at high risk of complications or in symptomatic health care professionals who care for patients at risk. Postexposure chemoprophylaxis with antiviral therapies can be considered in individuals who are at risk for influenza complications. Oseltamivir and baloxavir marboxil are commonly recommended antiviral treatment options for influenza. Antiviral treatment is most effective if taken within 24 to 36 hours of symptom onset and reduces symptoms by approximately 20 hours. However, there is little to no evidence that it reduces complications of influenza.

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Influenza is typically a self-limiting viral infection; however, serious illness and complications (eg, pneumonia, death) can occur, particularly in individuals with risk factors (Table 1).^{1,2} The primary mechanism of influenza pathophysiology is lung inflammation and compromise resulting from direct viral infection of the respiratory epithelium and the immune response to the spreading virus. This inflammation can spread systemically and manifest as multiorgan failure; consequences of respiratory failure and multiorgan failure are generally downstream of lung compromise and severe respiratory distress.³

Although influenza viruses do not typically cause serious illness in otherwise healthy individuals, influenza epidemics are

associated with significant morbidity and mortality each year worldwide. Influenza A is most common during pandemics because of its higher tendency for antigenic shift. A Centers for Disease Control and Prevention (CDC) analysis of the disease burden in the United States during the 2025-2026 influenza season estimated that influenza accounted for 32 million to 57 million illnesses; 15 million to 25 million medical visits; 390,000 to 800,000 hospitalizations; and 24,000 to 81,000 deaths.⁴

WHAT'S NEW ON THIS TOPIC

Influenza

The FDA recently approved a messenger RNA–based influenza vaccine (mFlusiva) for adults 50 years and older.

The 2024-2025 season had the highest number of influenza-associated deaths in children (n = 280) since surveillance in children began in 2004. Nearly 90% of these deaths occurred in children who were not fully vaccinated.

ACIP recommends only single-dose influenza vaccine formulations free of thimerosal. This differs from the AAFP, AAP, and ACOG, which recommend use of any age-appropriate, licensed vaccine.

AAFP = American Academy of Family Physicians; AAP = American Academy of Pediatrics; ACIP = Advisory Committee on Immunization Practices; ACOG = American College of Obstetricians and Gynecologists; FDA = US Food and Drug Administration.

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SORT: KEY RECOMMENDATIONS FOR PRACTICE

Clinical recommendation	Evidence rating	Comments
Hand hygiene (ie, handwashing or using hand sanitizer) should be performed to reduce influenza and flulike illness. ⁸	B	Cochrane review of studies with low-certainty evidence
Annual influenza vaccination is recommended for people 6 months and older, including those who are pregnant or may become pregnant. ^{2,9,11-13,16-19}	B	Reports from expert committees, systematic reviews, and meta-analyses
Clinicians should initiate antiviral therapy as soon as possible for influenza in patients who are hospitalized, have severe or progressive illness, or are at high risk of complications (eg, children younger than 2 years, adults older than 65 years, women who are pregnant or within 2 weeks postpartum). ^{42,50-53}	B	Expert opinion, consensus guideline, and conflicting low-quality evidence from systematic reviews and meta-analyses
Clinicians can consider treatment of symptomatic patients with household contacts at high risk of influenza complications or symptomatic health care professionals who care for at-risk patients. ⁴²	C	Expert opinion and consensus guideline

A = consistent, good-quality patient-oriented evidence; B = inconsistent or limited-quality patient-oriented evidence; C = consensus, disease-oriented evidence, usual practice, expert opinion, or case series. For information about the SORT evidence rating system, go to <https://www.aafp.org/afpsort>.

The 2024-2025 season was the most severe influenza season since 2017-2018 and had the highest number of influenza-associated deaths in children (n = 280) since surveillance in children began in 2004.^{5,6} Nearly 90% of these deaths occurred in children who were not fully vaccinated.⁵

PREVENTION

Physical Measures

Physical measures to prevent transmission of influenza include hand hygiene and use of surgical or respirator masks. Because the influenza virus is traditionally thought to spread via large-particle droplets during close contact (approximately 6 ft or less), the CDC recommends droplet precautions for health care professionals when entering the room of a patient with suspected or confirmed influenza. Additional precautions, such as use of a fitted N95 respirator during aerosol-generating procedures, are also recommended, although a Cochrane review showed little to no difference in preventing transmission between using N95 and surgical masks.^{7,8} Hand hygiene (ie, handwashing or using hand sanitizer) has

demonstrated benefit in reducing influenza and flulike illness, especially in younger children.⁸

TABLE 1

Factors Associated With a Higher Risk of Influenza Complications

Patient characteristics	Medical conditions
Adults ≥ 65 years (Centers for Disease Control and Prevention)	Asthma
Adults ≥ 50 years (American Academy of Family Physicians)	Any condition compromising the handling of respiratory secretions
Non-Hispanic Black individuals, Hispanic individuals, American Indians, and Alaska Natives	Blood disorders (eg, sickle cell disease)
Children < 5 years (particularly those < 2 years)	Chronic lung disease (eg, chronic obstructive pulmonary disease, cystic fibrosis)
Adults and children < 19 years taking long-term aspirin or medications containing salicylate	Chronic liver disease
Women who are pregnant or within 2 weeks postpartum	Chronic kidney disease
Adults in nursing homes or chronic care facilities	Endocrine disorders (eg, diabetes)
Adults and children with weakened immune systems	Heart disease (congenital and acquired)
	Immunosuppression
	Metabolic disorders
	Neurologic and neurodevelopmental conditions (eg, history of cerebrovascular accident)
	Severe obesity (class III: body mass index ≥ 40 kg/m ²)

Information from references 1 and 2.

TABLE 2

Influenza Vaccine Formulations

Vaccine	Age		Additional considerations			
	6 months-17 years	18-64 years	≥ 65 years*	Pregnancy	Lactation	Solid organ transplant recipient 18-64 years
Inactivated influenza vaccine, trivalent (IIV3; standard dose, egg-based)						
Fluarix (GlaxoSmithKline)	✓	✓	✓ (acceptable)	✓	✓	✓
Flulaval (GlaxoSmithKline)	✓	✓	✓ (acceptable)	✓	✓	✓
Fluzone (Sanofi Pasteur)	✓	✓	✓ (acceptable)	✓	✓	✓
Cell-based, inactivated influenza vaccine, trivalent (ccIIV3; standard dose)						
Flucelvax (Seqirus)	✓	✓	✓ (acceptable)	✓	✓	✓
High-dose, inactivated influenza vaccine, trivalent (HD-IIV3; egg-based)						
Fluzone high-dose (Sanofi Pasteur)	Not indicated	Not indicated	✓ (preferred)	Not indicated	Not indicated	✓
Adjuvanted inactivated influenza vaccine, trivalent (aIIV3; standard dose, egg-based with MF59 adjuvant)						
Fluad (Seqirus)	Not indicated	Not indicated	✓ (preferred)	Not indicated	Not indicated	✓
Recombinant influenza vaccine, trivalent (RIV3; recombinant hemagglutinin)						
Flublok (Sanofi Pasteur)	✓ (≥ 9 years)	✓	✓ (preferred)	✓	✓	✓
Live, attenuated influenza vaccine, trivalent (LAIV3; egg-based)						
Flumist (AstraZeneca)†	✓ (> 2 years)	✓ (≤ 49 years)	Not indicated	Contraindicated	✓	Contraindicated
Messenger RNA influenza vaccine, trivalent (mRNA-1010)						
mFlusiva (Moderna)‡	Not indicated	✓ (≥ 50 years)	✓ (preferred)	Insufficient data	Insufficient data	✓ (≥ 50 years)

Note: Information is based on available formulations for the 2026-2027 influenza season. The Centers for Disease Control and Prevention recommends the use of single-dose formulations, whereas the American Academy of Family Physicians, American Academy of Pediatrics, and American College of Obstetricians and Gynecologists recommend any age-appropriate, licensed vaccine.

*—HD-IIV3, aIIV3, RIV3, and mRNA-1010 are preferentially recommended for adults ≥ 65 years; other available age-appropriate influenza vaccines can be used if these are not available.

†—Approved for self-administration in patients 18-49 years of age or in those 2-17 years of age with administration by a caregiver.

‡—Approved August 5, 2026.

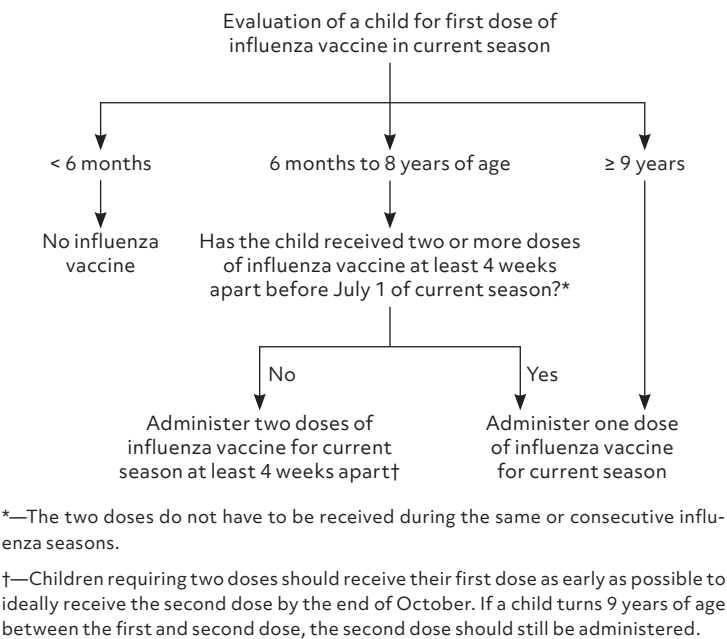
Information from reference 2, 7, 9, 11, and 13-15.

Immunizations

For the 2026-2027 influenza season, the CDC Advisory Committee on Immunization Practices (ACIP) interim guidelines,

American Academy of Family Physicians (AAFP), American College of Physicians, American Academy of Pediatrics (AAP), and American College of Obstetricians and Gynecologists

FIGURE 1



Influenza vaccine doses recommended for children based on age and vaccination history.

Information from reference 13.

(ACOG) recommend annual influenza vaccination for people 6 months and older, including those who are pregnant or may become pregnant, with no contraindication to vaccination.^{2,9-13} Table 2 summarizes influenza vaccine formulations.^{2,7,9,11,13-15} ACIP continues to recommend that children 6 months to 8 years of age receive two doses of the influenza vaccine at least 4 weeks apart if they have not received two or more doses before July 1 of the current season^{9,13} (Figure 1¹³). Vaccination typically should occur annually in September and October and continue if influenza viruses are circulating and unexpired vaccines are available. Vaccination earlier in the season is acceptable but not preferred due to effects of the vaccine potentially waning during the influenza season.⁹

Immunization has been shown to prevent influenza, reduce hospitalizations, and decrease mortality.¹⁶⁻²¹ Influenza immunization is cost-effective and reduces antibiotic use.^{22,23} The high-dose inactivated, recombinant, and adjuvanted inactivated influenza vaccines (ie, enhanced influenza vaccines) induce a greater immune response compared with standard-dose influenza vaccines. In older adults, enhanced influenza vaccines are preferred because of their stronger protection

TABLE 3

Myths About Influenza Vaccination

Myth	Fact
The flu vaccine gave me the flu.	The flu vaccine cannot give you the flu because it is made with dead (shot) or weakened (spray) viruses. As the body mounts an immune response, you may experience some muscle aches and fatigue in the first 24 hours. It takes 1-2 weeks for the vaccine to take effect, so it is possible to get the flu during that period.
I cannot get the flu vaccine because I have an egg allergy.	Several formulations of the flu vaccine are made using eggs, but the trace amount of egg proteins in these vaccines do not cause a severe allergic response. All formulations of the flu vaccine can be given to people with egg allergies. Two available versions of the flu vaccine are made without using eggs.
I cannot get the flu vaccine because I am pregnant.	The flu vaccine is recommended during pregnancy. Normal changes in the immune system during pregnancy can increase the risk of flu complications. Also, getting sick from the flu while pregnant can increase pregnancy complications such as preterm labor.
The flu is just a cold.	Although many symptoms overlap, the flu typically has more severe symptoms and can lead to serious complications, such as pneumonia. In the 2025-2026 season, the flu resulted in at least 15 million medical visits, 390,000 hospitalizations, and 24,000 deaths in the United States.
I received the vaccine and still got the flu.	The flu vaccine is made by predicting the types of flu viruses that will be common in the next flu season. Even when the circulating flu does not exactly match the vaccine, the vaccine reduces severity and risk of hospitalization or death. Because administration of the flu vaccine continues during times of influenza activity, some patients may have the flu shortly after vaccination during the brief period before the vaccine has had time to take effect.

Information from references 4, 9, and 11.

against influenza hospitalizations than standard vaccines.²⁴ The US Food and Drug Administration recently approved the messenger RNA–based influenza vaccine (mFlusiva) for adults 50 years and older; it is preferred in those 65 years and older.^{2,14,15}

Influenza vaccination appears to reduce the risk of neurodegenerative diseases, such as dementia in older adults and populations at high risk for dementia, and has a cardioprotective effect in those with high cardiovascular risk or established cardiovascular disease.^{25–27} Influenza vaccination is recommended during pregnancy because it reduces maternal influenza illness and hospitalization and provides passive immunity for newborns.^{11,18,21,28}

There are few absolute contraindications to influenza vaccination, although there are special considerations and contraindications for the live, attenuated vaccine. ACIP recommends only single-dose formulations free of thimerosal; this differs from the AAFP, AAP, and ACOG recommendations, which specify that any age-appropriate, licensed vaccine can be used.^{2,9,11,13} Several meta-analyses and an Institute of Medicine report that reviewed more than 200 studies found no causative link between vaccines and autism.^{29,30} Furthermore, the ethyl mercury contained in thimerosal notably differs from methylmercury found in fish. Autism diagnoses have increased despite removal of thimerosal from all other childhood vaccines in 2003.³¹ Influenza vaccination during pregnancy has no association with birth complications or early childhood adverse outcomes such as asthma, neoplasms, sensory impairment, or infections.^{32–34}

Patient counseling on influenza vaccination should include accurate, evidence-based information. Barriers to influenza vaccine uptake include lack of confidence, inconvenience, calculation (eg, perceived risk vs benefit), and complacency.³⁵ Table 3 summarizes common myths about influenza vaccination and facts to counteract them.^{4,9,11} Strategies such as presumptive counseling and on-site vaccination have been associated with increased vaccination rates, whereas texts and portal messages were not effective.^{36–38}

DIAGNOSIS

Presentation

Influenza is highly contagious and typically characterized by abrupt onset of fever, chills, cough, rhinitis, headache, sweats, myalgias, and malaise 1 to 4 days after exposure to the virus.^{39,40} Atypical presentations can occur in young children and older adults. In very young children, nausea, vomiting, and diarrhea can accompany respiratory symptoms. In older adults, fever may be absent, and symptoms can be nonspecific, such as mental status changes.³⁹ Signs and symptoms of uncomplicated influenza can resolve in 3 to 7 days; however, cough and malaise may persist for more than 2 weeks, especially in older adults and those with chronic lung conditions.³⁹

When considering treatment based on presentation, use of a risk score may expedite clinical diagnosis and support initiation of antiviral treatment (ideally within 24–36 hours after symptom onset) to reduce the duration and severity of influenza

symptoms. FluScoreVax, a recently developed scoring system, has been externally and internally validated, demonstrating very good accuracy (Table 4).⁴¹ It can also help identify low-risk patients who require no testing or treatment for influenza. A free online calculator is available at <https://ebell-projects.shinyapps.io/FluScoreVax>.

Testing

Infectious Diseases Society of America (IDSA) and CDC guidelines recommend testing for influenza in patients with acute respiratory illness who require hospitalization and in outpatients for whom the test result will affect management during periods of influenza activity (local activity reports are available at <https://www.cdc.gov/fluview/index.html>).^{42,43} Rapid diagnosis of influenza using point-of-care testing increases antiviral prescribing and decreases antibiotic prescribing in those with a positive result.⁴⁴ The IDSA recommends strategies for maximizing detection of influenza, including testing within 4 days of symptom onset, using flocked swabs, and collecting nasopharyngeal specimens.⁴² Middle turbinate nasal swabs are preferred

TABLE 4

FluScoreVax Risk Score for Influenza

Clinical risk factor	Points
Fever (subjective)	4
Interferes with usual activity	1
Headache	1
Wheeze	–1
Phlegm or sputum production	–2
Received flu vaccine for current season	–2
Total (range –5 to 6)	—

Risk group (points)	No. with influenza/total (%)	Likelihood ratio
Low risk (–5 to 0)	22/325 (6.8)	0.41
Moderate risk (1 to 3)	31/142 (21.8)	1.57
High risk (4 to 6)	24/68 (35.3)	3.06

Note: Risk groups and proportion of those with influenza are from a prospective external validation using data for 535 US adults with lower respiratory tract infection. An online calculator for this tool is available at <https://ebell-projects.shinyapps.io/FluScoreVax>.

Information from reference 41.

over throat swabs and may provide comparable sensitivity to a nasopharyngeal specimen.^{42,45,46} Rapid influenza testing uses antigen detection assays to provide results within 5 minutes but with only moderate sensitivity (50% to 80%). Although more costly than rapid antigen assays, molecular assays have high sensitivity (90% to 95%) and a turnaround time of less than 30 minutes.⁴⁷ It should be noted that a negative rapid test result does not exclude influenza.

Because the presentations of influenza and other viral respiratory illnesses have significant overlap, multiplex point-of-care tests can identify multiple viral respiratory illnesses, such as influenza, COVID-19, and respiratory syncytial virus infection, with good accuracy.⁴⁸ Self-collected respiratory specimens demonstrate reasonable agreement in sensitivity and specificity compared with staff-collected specimens.⁴⁹ The reliability of home-based self-collected swabs paired with symptom tracking has implications for telemedicine management of influenza and public health tracking of influenza activity.

TREATMENT

Most individuals with influenza have mild illness and do not require treatment. However, clinicians should initiate antiviral therapy as soon as possible for patients who are hospitalized, have severe or progressive illness, or are at high risk of complications.^{42,50-53} Groups at high risk of complications include children younger than 2 years, adults older than 65 years, and women who are pregnant or within 2 weeks postpartum. Clinicians can consider treatment for symptomatic patients with household contacts at high risk of influenza complications or for symptomatic health care professionals who care for at-risk patients.⁴² The recommended dosing and duration of antiviral treatment is outlined in Table 5.^{11,50,51,53,54}

Four agents are recommended for antiviral treatment of influenza A and B: the neuraminidase inhibitors oseltamivir (oral), zanamivir (Relenza; inhalation), and peramivir (Rapivab; intravenous) and the cap-dependent endonuclease inhibitor baloxavir marboxil (Xofluza; oral).⁵⁰ Amantadine and rimantadine are no longer recommended for treatment of influenza because of widespread antiviral resistance.

The CDC recommends oseltamivir for patients who are hospitalized, have complications or progressive disease, or are pregnant.⁵⁰ Oseltamivir, zanamivir, peramivir,

or baloxavir marboxil may be used for uncomplicated cases of influenza depending on age and contraindications.^{11,50,51} Baloxavir marboxil is not recommended in patients who are pregnant or breastfeeding, in children younger than 5 years, as monotherapy in severely immunosuppressed patients, or in those who have severe illness or are hospitalized for influenza based on a lack of efficacy or safety data and evidence of emerging resistance.^{55,56}

TABLE 5
Antiviral Medications for Influenza

Medication	Route of administration	Use
Neuraminidase inhibitors		
Oseltamivir	Oral (capsule or suspension)	Preferred treatment during pregnancy Outpatient: reduces time to first alleviation of symptoms by 16.8 hours in adults and 29 hours in healthy children (no difference in children with asthma); no significant effect on serious influenza complications or hospitalizations Hospitalized patients: may reduce in-hospital morbidity and mortality, even if treatment is started > 48 hours after onset of illness, based on observational studies Chemoprophylaxis: NNT = 33 (7 in households)
Zanamivir (Relenza)	Inhalation	Outpatient: reduces time to alleviation of symptoms by 14.4 hours in adults Chemoprophylaxis: NNT = 51 (7 in households) Not recommended routinely for hospitalized patients

Note: When indicated, antiviral treatment should be started as soon as possible after symptom onset (within 48 hours and ideally within 24-36 hours). There still may be benefit in patients with severe, complicated, or progressive illness and hospitalized patients even after 48 hours of symptom onset.

Although the CDC recommends starting antiviral therapy when indicated as soon as possible (ideally within 24 to 36 hours of symptom onset) for maximal clinical benefit, the IDSA recommends treating patients who have severe or progressive illness with antivirals regardless of illness duration.^{42,50} Although antiviral therapy decreases duration of symptoms by about 20 hours, it does not reduce rates of hospitalization

or pneumonia and has the potential for adverse effects such as nausea and vomiting.^{51,52,57,58} A 2025 systematic review of patients with nonsevere influenza demonstrated that antivirals had no effect on mortality and hospitalization, with the exception of a questionable reduction in hospital admissions in high-risk patients taking baloxavir.⁵³ IDSA guidelines recommend against the use of corticosteroid adjunctive therapy

Dosage	Cost*	Contraindications, adverse events, and precautions
Treatment Adults/adolescents (≥ 13 years): 75 mg twice daily for 5 days Children (≥ 1 year): > 40 kg: 75 mg twice daily for 5 days > 23-40 kg: 60 mg twice daily for 5 days > 15-23 kg: 45 mg twice daily for 5 days ≤ 15 kg: 30 mg twice daily for 5 days Infants (< 1 year): 3 mg/kg twice daily for 5 days Chemoprophylaxis (≥ 3 months) Adults/adolescents ≥ 13 years: 75 mg once daily for 7 days after last known exposure Children (≥ 1 year): > 40 kg: 75 mg once daily for 5 days > 23-40 kg: 60 mg once daily for 5 days > 15-23 kg: 45 mg once daily for 5 days ≤ 15 kg: 30 mg once daily for 5 days Infants (< 1 year): 3 mg/kg once daily for 5 days Dose adjustment required for creatinine clearance ≤ 60 mL/min/1.73 m² (1.00 mL/sec/m²)	\$20 (\$170)	Nausea, vomiting, headache NNH = 28 for nausea (treatment dose), 22 for vomiting (treatment dose), 25 for headaches (prophylaxis dose) in adults Postmarketing reports of serious skin reactions and sporadic, transient neuropsychiatric events Taking with food may lessen nausea and vomiting
Treatment (≥ 7 years): 10 mg (2 inhalations) twice daily for 5 days Chemoprophylaxis (≥ 5 years): 10 mg (2 inhalations) once daily for 7 days after last known exposure No dose adjustment is needed for patients with renal impairment	— (\$65)	Contraindicated in patients with underlying airway diseases, such as chronic obstructive pulmonary disease or asthma, or history of lactose or milk protein allergy Risk of bronchospasm, especially in the setting of underlying airway diseases; sinusitis and dizziness Postmarketing reports of serious skin reactions and sporadic, transient neuropsychiatric events May be used as alternative treatment during pregnancy

continues ➤

IV = intravenously; NNH = number needed to harm; NNT = number needed to treat.

*—Estimated lowest GoodRx price for one treatment course. Actual cost will vary with insurance and by region. Generic price listed first; brand name price in parentheses. Information obtained at <https://www.goodrx.com> (accessed May 1, 2026; zip code: 66211).

or immunomodulation using immune globulin preparations (eg, intravenous therapy) in adults or children with suspected or confirmed seasonal influenza, influenza-associated pneumonia, respiratory failure, or acute respiratory distress syndrome, unless clinically indicated for other reasons.⁴²

Postexposure Chemoprophylaxis

Although the CDC recommends judicious use of antiviral medications for chemoprophylaxis to reduce the possibility of developing and spreading antiviral-resistant influenza viruses, clinicians can consider postexposure chemoprophylaxis for individuals who are at risk of influenza complications or have been exposed to an active case of influenza.^{42,50,54}

This article updates previous articles on this topic by Gaitonde, et al.⁵⁹; Erlikh, et al.⁶⁰; Montalto⁶¹; and Montalto, et al.⁶²

Data Sources: A PubMed search was completed in Clinical Queries using the key term influenza. The search included meta-analyses, randomized controlled trials, clinical trials, and reviews. The Agency for Healthcare Research and Quality Effective Healthcare Reports, Cochrane database, and Essential Evidence Plus were also searched. We critically reviewed studies that used patient categories such as race and/or gender but did not define how these categories were assigned, stating limitations in the text. Search dates: September 15, 2025; June 28, 2026.

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TABLE 5 (continued)

Antiviral Medications for Influenza

Medication	Route of administration	Use
Neuraminidase inhibitors (continued)		
Peramivir (Rapivab)	IV	Outpatient: noninferior to oseltamivir in time to alleviation of symptoms Not recommended routinely for hospitalized patients Not recommended for chemoprophylaxis
Cap-dependent endonuclease inhibitor		
Baloxavir marboxil (Xofluza)	Oral (tablet or suspension)	Reduces time to alleviation of symptoms by 1 day, may reduce risk of hospitalization for high-risk patients Chemoprophylaxis: NNT = 22 Not recommended routinely for hospitalized patients

Note: When indicated, antiviral treatment should be started as soon as possible after symptom onset (within 48 hours and ideally within 24-36 hours). There still may be benefit in patients with severe, complicated, or progressive illness and hospitalized patients even after 48 hours of symptom onset.

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Dosage	Cost*	Contraindications, adverse events, and precautions
Treatment (≥ 6 months) Adults/adolescents (≥ 13 years): 600-mg single dose IV infusion (≥ 15 minutes) Children (6 months to < 13 years): 12 mg/kg (up to 600 mg) single dose IV infusion (≥ 15 minutes) Dose adjustment required for creatinine clearance < 50 mL/min/1.73 m² (0.83 mL/sec/m²)	— (\$936)	Diarrhea, neutropenia, vomiting Postmarketing reports of serious skin reactions and sporadic, transient neuropsychiatric events May be used as alternative treatment during pregnancy
Treatment (≥ 5 years) ≥ 80 kg: 80 mg as a single dose 20 to < 80 kg: 40 mg as a single dose < 20 kg: 2 mg/kg as a single dose Chemoprophylaxis (≥ 5 years): same as treatment dose, taken within 48 hours of exposure	— (\$170)	Diarrhea, bronchitis, nausea, sinusitis, headache Should not be administered with dairy products, calcium-fortified beverages, antacids, or oral supplements containing polyvalent cations Not recommended during pregnancy or lactation, in children < 5 years, as monotherapy in severely immunosuppressed patients, or in those with severe illness or hospitalization for influenza

IV = intravenously; NNH = number needed to harm; NNT = number needed to treat.

*—Estimated lowest GoodRx price for one treatment course. Actual cost will vary with insurance and by region. Generic price listed first; brand name price in parentheses. Information obtained at <https://www.goodrx.com> (accessed May 1, 2026; zip code: 66211).

Information from references 11, 50, 51, 53, and 54.

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