

# Texas Medicaid

## Influenza Prevention: Vaccination and Education

<b>Educational RetroDUR Mailing</b>	<input type="checkbox"/> Initial Study <input checked="" type="checkbox"/> Follow – up /Restudy
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### Executive Summary

<b>Purpose:</b>	<p>This retrospective claims review was designed to support providers with influenza prevention strategies and timely vaccination recommendations for the upcoming flu season. The letter was selected to encourage prudent use of the influenza antiviral agents and increase influenza vaccination rates during the next influenza season.</p> <p>The educational materials encourage providers to:</p> <ul style="list-style-type: none"> <li>• Identify candidates for influenza vaccination, especially those at high risk</li> <li>• Discuss the importance of influenza vaccination at well and sick visits</li> <li>• Educate patients on practicing healthy habits to prevent influenza</li> <li>• Recognize Texas HHSC coverage policies for the Influenza vaccine for members for the 2022-2023 season</li> <li>• Provide or assist members in receiving influenza vaccination for the 2022-2023 season</li> <li>• Review Centers for Disease Control and Prevention (CDC) recommendations on use of influenza antivirals for treatment and prevention of influenza</li> </ul>
<b>Why Issue was Selected:</b>	<p>While the influenza virus continues to have a significant burden on the healthcare system, the primary mode of prevention continues to be vaccination.<sup>1</sup> Unusually low influenza activity globally during the 2020-2021 influenza season prevented disease burden calculations from being performed for the most recent season, however, the CDC estimates that during the 2019-2020 influenza season, the vaccine prevented approximately 7.52 million influenza-related illnesses, 105,000 hospitalizations, and 6,300 deaths in the U.S.<sup>2</sup> With the ongoing COVID-19 pandemic, influenza vaccination is even more important since it can reduce the overall impact of influenza illness on the population, which could decrease additional strain on the healthcare system.<sup>1</sup></p> <p>Influenza vaccination is recommended yearly for all persons at least 6 months of age who do not have contraindications, with additional emphasis on vaccination in those at high risk for developing severe illness and complications from influenza.<sup>1</sup> High risk groups include children 6 to 59 months of age, pregnant women, individuals 50 years and older, and individuals who are immunocompromised or have heart or lung disease, cancer, diabetes, neurologic conditions, kidney or liver disease, metabolic disorders, those with a body mass index (BMI) of 40 kg/m<sup>2</sup> or higher, among others.<sup>1</sup></p> <p>Influenza vaccination is the best way to prevent influenza and influenza-related complications. However, there are instances where antivirals are indicated. The CDC and Infectious Disease Society of America (IDSA) guidelines recommend treatment with antivirals in those patients who are hospitalized; have severe,</p>

	complicated or progressive illness; or are at higher risk for influenza complications. <sup>3,4</sup> Providers are encouraged to use clinical judgement when prescribing antivirals for suspected influenza in non-high-risk symptomatic patients and only if treatment can be started within 48 hours of illness onset. <sup>3,4</sup>		
<b>Program Specific Information:</b>	<b>Performance Indicators</b>	<b>Exceptions</b>	
		<b>(&lt; 18 Years) FFS</b>	<b>(&lt; 18 Years) MCO</b>
	<ul style="list-style-type: none"> <li>Members with an influenza antiviral prescription from 9/1/2021 to 3/31/2022, who did not receive an influenza vaccine</li> </ul>	(248) 295	(75,927) 85,561
	<ul style="list-style-type: none"> <li>Members who received &gt; 1 influenza antiviral prescription from 9/1/2021 to 3/31/2022</li> </ul>	(1) 2	(3119) 3,383
<b>Setting &amp; Population:</b>	Providers identified in this retrospective claims review will receive educational information along with prescribing guidelines for the influenza antivirals.		
<b>Types of Intervention:</b>	Educational letter		
<b>Main Outcome Measures:</b>	Re-measure performance indicators comparing the 2021-2022 influenza season to that of the 2022-2023 influenza season. Compare utilization of influenza vaccination and antiviral claims volume.		
<b>Anticipated Results:</b>	<ul style="list-style-type: none"> <li>Increased utilization of influenza vaccination among members, especially high-risk individuals and children and adolescents.</li> <li>Reduced use of the influenza antiviral medications in members not at high risk.</li> <li>Lowered rate of members receiving &gt; 1 influenza antiviral in a single influenza season.</li> </ul>		

**Performance Indicator #1: Members with an influenza antiviral prescription from 9/1/2021 to 3/31/2022, who did not receive an influenza vaccine**

<b>Why has this indicator been selected?</b>	Vaccination against the influenza virus is the best way to prevent infection and spread of the virus during influenza season. <sup>1,3</sup> Although antivirals can be used for treatment and chemoprophylaxis of influenza, they should not be routinely used for chemoprophylaxis, except in certain clinical situations. <sup>3,4</sup> Education regarding guidelines for vaccination and antiviral use can reinforce goals in treating influenza.
<b>Candidates (denominator):</b>	Members with at least one guideline-recommended influenza antiviral prescription or medical claim (i.e., baloxavir, peramivir, oseltamivir, zanamivir) from 9/1/2021 to 3/31/2022.
<b>Exception criteria (numerator):</b>	Candidates who did not receive an influenza vaccine during the past flu season.

**Performance Indicator #2: Members who received > 1 influenza antiviral prescription from 9/1/2021 to 3/31/2022**

<b>Why has this indicator been selected?</b>	The CDC and IDSA guidelines recommend treatment with antivirals in those patients who are hospitalized; have severe, complicated or progressive illness; or are at higher risk for influenza complications. <sup>3,4</sup> Providers are encouraged to use clinical judgment when prescribing antivirals for suspected influenza in non-high-risk symptomatic patients and only if treatment can be started within 48 hours of illness onset. <sup>3,4</sup>
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<b>Candidates (denominator):</b>	Members who received a guideline-recommended influenza antiviral prescription or medical claim (i.e., baloxavir, peramivir, oseltamivir, zanamivir) from 9/1/2021 to 3/31/2022.
<b>Exception criteria (numerator):</b>	Candidates who received > 1 influenza antiviral prescription or medical claim during the past flu season.

## References:

1. Grohskopf LA, Alyanak E, Ferdinands JM, et al. Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices - United States, 2021–22 Influenza Season. MMWR 2021;70(RR-5):1–32. Available at: <https://www.cdc.gov/mmwr/volumes/70/rr/rr7005a1.htm>. Accessed May 23, 2022.
2. Centers for Disease Control and Prevention. Estimated Influenza Illnesses, Medical Visits, and Hospitalizations Averted by Vaccination. Available at: <https://www.cdc.gov/flu/vaccines-work/burden-averted.htm>. Updated August 26, 2021. Accessed June 24, 2022.
3. Uyeki TM, Bernstein HH, Bradley JS, et al. Clinical Practice Guidelines by the Infectious Diseases Society of America: 2018 Update on Diagnosis, Treatment, Chemoprophylaxis, and Institutional Outbreak Management of Seasonal Influenza. Clin Infect Dis. 2019;68(6):e1–e47. Available at: <https://www.idsociety.org/practice-guideline/influenza/>. Accessed May 23, 2022.
4. Centers for Disease Control and Prevention. Influenza Antiviral Medications: Summary for Clinicians. Available at: <https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm>. Updated February 4, 2022. Accessed May 23, 2022.



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**RE: 2022-2023 Influenza Prevention: Vaccination and Education**

Dear Dr. <<Name>>:

This retrospective claims review has been approved by the Texas Drug Utilization Review (DUR) Board to support providers with influenza prevention strategies and timely vaccination recommendations for the upcoming influenza season. This letter is intended to encourage prudent use of the influenza antiviral agents and increase influenza vaccination rates during the next influenza season.

The Centers for Disease Control and Prevention (CDC) updates recommendations for influenza prevention strategies at least annually and includes guidance from the Advisory Committee on Immunization Practices.<sup>1,2</sup> This information can be found on the CDC website at: <https://www.cdc.gov/flu/professionals/index.htm>. To optimize influenza prevention strategies, providers should start vaccinating their patients prior to the start of the influenza season. September and October are general recommendations for most patients but early vaccination is recommended for some groups (e.g., children, women in their third trimester of pregnancy). The Texas Health and Human Services Commission provides coverage of influenza vaccination for children and adolescents under the Texas Vaccines for Children (TVFC) program and also for adults.

The educational materials provided highlight important influenza recommendations as well as resources for you to use in your office for the upcoming influenza season. The following indicators have been used to identify providers for this intervention.

**Total Texas Medicaid FFS Specific Data**

Influenza Indicator Summary	Number of Opportunities*	
	< 18 Years	≥ 18 Years
• Members with an influenza antiviral prescription from 9/1/2021 – 3/31/2022, who did not receive an influenza vaccine	248	47
• Members who received > 1 influenza antiviral prescription from 9/1/2021 – 3/31/2022	1	1

\*Based on data through 03/31/2022

We acknowledge that there may be clinical variables influencing an individual patient’s management that are not apparent in claims data. However, we believe the issues identified may assist you in caring for your patient(s). It is possible that your license number may have been inadvertently assigned to the claim as an error at the pharmacy during the billing process. We thank you for reviewing this information and caring for Texas Medicaid patients, and we welcome the opportunity to discuss any comments or concerns you may have about our quality management program. Please feel free to call our office at 1-866-923-7208 with questions or

concerns. If your mailing address is incorrect, it must be updated through the Texas Medical Board online at <http://www.tmb.state.tx.us/page/change-address>.

Sincerely,

Medicaid Drug Use Review Board  
Vendor Drug Program H-630

### 2021-2022 Influenza Vaccine Recommendations

The Advisory Committee on Immunization Practices (ACIP) and CDC continue to recommend everyone 6 months and older receive an influenza vaccine unless contraindicated and no preference is given for one vaccine type over another.<sup>3</sup> Optimally, patients should be vaccinated by the end of October, but vaccination administered later in the season is still beneficial and should continue until the end of influenza season or vaccine supply is exhausted. This year, ACIP modified their recommendations surrounding vaccination timing. For pregnant women in their third trimester and children, vaccination may be considered as soon as the vaccine is available.<sup>3</sup> However, in non-pregnant adults, early vaccination (i.e., July and August) should be avoided unless there is concern that later vaccination may not be feasible.<sup>3</sup> This is based on the potential for decreased vaccine effectiveness before the end of influenza season in adults.

As with last year, influenza season is expected to coincide with the ongoing COVID-19 pandemic. In cases where patients are in isolation for COVID-19 or in quarantine for a known or suspected exposure, influenza vaccination should not occur if it will pose an exposure risk to others in the vaccination setting.<sup>3</sup> For patients with moderate to severe COVID-19 infection, influenza vaccination should be deferred until they have recovered.<sup>3</sup> In patients with asymptomatic or mild COVID-19 illness, patients can either receive the influenza vaccine or it can be deferred until they have recovered to reduce confusing COVID-19 symptoms with post-vaccination reactions.<sup>3</sup> Current guidance recommends COVID-19 vaccines may be administered along with influenza vaccines without any regard to timing, although there is a potential for an increase in reactogenicity with coadministration.<sup>3</sup> Healthcare providers are encouraged to consult with the Interim Clinical Considerations for Use of COVID-19 Vaccines Currently Authorized in the United States which can be found at <https://www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html> for the most up to date information as it becomes available.

If vaccine supply is limited, vaccination efforts should be focused on persons at high-risk for medical complications from influenza as well as persons they live with or caregivers that are in a high-risk group themselves (Table 1).<sup>3</sup>

**Table 1: Populations at High Risk for Medical Complications from Influenza**

High-Risk Groups <sup>3</sup>
• Children age 6-59 months, adults $\geq 50$ years
• Persons with chronic pulmonary (including asthma), cardiovascular (excluding isolated hypertension), renal, hepatic, neurologic, hematologic, or metabolic disorders (including diabetes)
• Persons who are immunocompromised due to any cause (including medications or HIV infection)
• Women who are or will be pregnant during the influenza season
• Children and adolescents (aged 6 months through 18 years) receiving aspirin or salicylate-containing medications and who might be at risk for Reye's syndrome
• Residents of nursing homes and other long-term care facilities
• American Indians/Alaska Natives
• Persons who are extremely obese (BMI $\geq 40$ kg/m <sup>2</sup> )

## Vaccines for the 2021-2022 Influenza Season

- The composition of the 2021-22 U.S. influenza vaccines includes updates to the influenza A(H1N1)pdm09 and, influenza A(H3N2) components.
- All available influenza vaccines this season are quadrivalent and will contain hemagglutinin (HA) derived from one influenza A(H1N1)pdm09 virus, one influenza A(H3N2) virus, one influenza B/Victoria lineage virus, and one influenza B/Yamagata lineage virus.
- Flucelvax Quadrivalent received FDA approval to be used in children 2 to less than 4 years of age.

**Table 2: Influenza Vaccines — United States, 2021–22 Influenza Season\***

Type	Name	Manufacturer	Age	Route
Inactivated Influenza Vaccine	Afluria <sup>®</sup> Quadrivalent	Seqirus	≥ 6 months**	IM
	Fluarix <sup>®</sup> Quadrivalent	GlaxoSmithKline	≥ 6 months	IM
	Flucelvax <sup>®</sup> Quadrivalent	Seqirus	≥ 2 years	IM
	FluLaval <sup>®</sup> Quadrivalent	GlaxoSmithKline	≥ 6 months	IM
	Fluzone <sup>®</sup> Quadrivalent	Sanofi Pasteur	≥ 6 months***	IM
	Fluzone <sup>®</sup> High-Dose Quadrivalent	Sanofi Pasteur	≥ 65 years	IM
	Fluad <sup>®</sup> Quadrivalent	Seqirus	≥ 65 years	IM
Recombinant Influenza Vaccine	Flublok <sup>®</sup> Quadrivalent	Sanofi Pasteur	≥ 18 years	IM
Live Attenuated Influenza Vaccine	FluMist <sup>®</sup> Quadrivalent	AstraZeneca	2-49 years	NAS

IM = Intramuscular, NAS = Intranasal

\* Immunization providers should check FDA-approved prescribing information for 2021-22 influenza vaccines for the most complete and updated information, including (but not limited to) indications, contraindications, warnings, and precautions. These are available <https://www.fda.gov/vaccines-blood-biologics/vaccines/vaccines-licensed-use-united-states>.

\*\* 0.25ml prefilled syringe: 6-35 months, 0.5ml prefilled syringe: ≥ 3 years, Jet injector: 18-64 years

\*\*\* 0.25ml or 0.5ml prefilled syringe: 6-35 months, 0.5ml prefilled syringe: ≥ 3 years

## Persons with a History of Egg Allergy

Influenza vaccine is recommended in patients with an egg allergy.<sup>3</sup> ACIP revised the recommendations for patients with reactions other than urticaria. Previously, all influenza vaccines given to this group had to be administered in an inpatient or outpatient medical setting supervised by a healthcare provider able to recognize and manage severe allergic reactions. Now this is only recommended if a vaccine other than Flublok or Flucelvax is given.<sup>3</sup> Healthcare providers should consider observing all patients regardless of allergy history for 15 minutes after any vaccine administration to decrease the risk for injury should the patient experience syncope.<sup>3</sup>

## Antiviral Medications

While influenza vaccination is the best way to prevent illness, receiving the vaccine does not completely rule out the possibility of influenza virus infection. When started early, treatment with an influenza antiviral agent can shorten the duration of symptoms and reduce the risk of influenza-related complications (e.g., otitis media and pneumonia), and may decrease the risk of mortality in high-risk populations.<sup>4,5</sup> Healthcare providers should use their clinical judgment, taking into consideration a patient's illness severity and progression, age, comorbidities, likelihood of influenza, and time since symptom onset when deciding on whether to initiate antiviral treatment. Studies show these antivirals have greatest clinical benefit when started within 2 days of illness onset but, benefit was seen in most patients even after 4-5 days. If treatment is initiated, outpatients not considered at high risk should have antivirals started within 2 days of illness onset. However, treatment should be started as soon as possible in patients who are hospitalized; have severe, complicated or progressive illness; or are at higher risk for influenza complications regardless of illness duration.<sup>4,5</sup>

Four influenza antiviral medications, having activity against both influenza A and B, are recommended for use during the 2021-2022 influenza season (Table 3). Oseltamivir is recommended for patients with severe or complicated illness with suspected or confirmed influenza, as well as in pregnant women.<sup>5</sup> While the other

antivirals, in addition to oseltamivir, are recommended for use in suspected or confirmed uncomplicated influenza.<sup>5</sup> Both amantadine and rimantadine are not recommended for treatment or chemoprophylaxis of influenza A due to continued high rates of resistance.<sup>5</sup>

**Table 3: Influenza Antiviral Medications<sup>5</sup>**

Drug	PDL Status	Dose	Duration†
Baloxavir marboxil (Oral tablets, suspension)	Non-Preferred	<b>Treatment:</b> $\geq 12$ years and $< 80$ kg: 40 mg one-time single dose $\geq 12$ years and $\geq 80$ kg: 80 mg one-time single dose	1 day
		<b>Chemoprophylaxis:</b> Dose same as treatment*	1 day
Oseltamivir (Oral capsules, suspension)	Preferred	<b>Treatment:</b> $< 1$ year: 3 mg/kg/dose twice daily $> 1$ year: $\leq 15$ kg: 30 mg twice daily $> 15$ to 23 kg: 45 mg twice daily $> 23$ to 40 kg: 60 mg twice daily $> 40$ kg: 75 mg twice daily	5 days**
Tamiflu (Oral capsules, suspension)	Non-Preferred	<b>Chemoprophylaxis:</b> $\geq 3$ months to $< 1$ year: 3 mg/kg/dose daily $> 1$ year: $\leq 15$ kg: 30 mg once daily $> 15$ to 23 kg: 45 mg once daily $> 23$ to 40 kg: 60 mg once daily $> 40$ kg: 75 mg once daily	7 days
Zanamivir (Inhaled)	Non-Preferred	<b>Treatment:</b> $\geq 7$ years: 10 mg (two 5-mg inhalations) twice daily	5 days
		<b>Chemoprophylaxis:</b> $\geq 5$ years: 10 mg (two 5-mg inhalations) once daily	7 days
Peramivir (Intravenous)	Non-Formulary	<b>Treatment:</b> <b>Age 2-12 years:</b> One 12 mg/kg dose, up to 600 mg, via intravenous infusion for a minimum of 15 minutes $\geq 13$ years: One 600 mg dose, via intravenous infusion for a minimum of 15 minutes	1 day**
		<b>Chemoprophylaxis:</b> NI	NI

NI: Not indicated

† does not apply to outbreaks in institutional settings. FDA-approved labeling recommends 10-day duration for chemoprophylaxis for oseltamivir and zanamivir.

\* Approved for post-exposure prophylaxis in person  $\geq 12$  yrs

\*\* Longer treatment duration maybe needed for severely ill patients

The CDC and the Infectious Disease Society of America (IDSA) do not recommend the routine use of antiviral medications for chemoprophylaxis outside of institutional influenza outbreaks or certain clinical situations.<sup>4,5</sup> Similarly, routine use of post-exposure chemoprophylaxis is not recommended, but can be considered in patients at high risk of influenza complications during the first two weeks following vaccination, in high-risk patients when vaccination is not possible due to a vaccine contraindication, or in patients with severe immune deficiencies who may not respond to vaccination.<sup>4,5</sup> Providers are encouraged to use clinical judgment in healthy, symptomatic patients when prescribing antivirals for influenza virus.<sup>4,5</sup>

## Encouraging Patients to Practice Healthy Habits

In addition to vaccination, educating and encouraging patients on healthy habits to prevent influenza is another way healthcare providers can decrease the spread of influenza as well as other respiratory illnesses. These tips not only help patients to protect themselves from getting sick, but also protects the spread of the virus to others.<sup>6</sup> These include:

- Avoiding close contact with people who are sick and if you are sick, avoid contact with others
- Staying home when you are sick to prevent spreading your illness to others. If you start to feel sick while at work or school, go home soon as possible.
- Covering your mouth and nose with a tissue when you sneeze or cough
- Washing your hands with soap and water frequently and using alcohol-based hand sanitizers
- Avoiding touching your eyes, nose and mouth
- Disinfecting frequently touched surfaces at home, work and school, especially when someone is sick (i.e., countertops, doorknobs, handles, keyboards, telephones)
- Making sure you take care of yourself by getting plenty of sleep, staying physically active, drinking plenty of water, eating nutritious food, and managing stress.

Additional educational materials for your office are available from the CDC and can be obtained at: <https://www.cdc.gov/flu/resource-center/toolkit/index.htm#printreadymaterials>. Additionally, Texas program specific influenza information can be found at: <https://www.dshs.texas.gov/flu/>.

## References:

1. Centers for Disease Control and Prevention (CDC). Influenza (flu). Updated April 29, 2022. Available at: <https://www.cdc.gov/flu/index.htm>. Accessed May 23, 2022.
2. Centers for Disease Control and Prevention (CDC). Preventive Steps. Updated November 18, 2021. Available at: <https://www.cdc.gov/flu/prevent/prevention.htm>. Accessed May 23, 2022.
3. Grohskopf LA, Alyanak E, Ferdinands JM, et al. Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices - United States, 2021–22 Influenza Season. MMWR 2021;70(RR-5):1–32. Available at: <https://www.cdc.gov/mmwr/volumes/70/rr/rr7005a1.htm>. Accessed May 23, 2022.
4. Uyeki TM, Bernstein HH, Bradley JS, et al. Clinical Practice Guidelines by the Infectious Diseases Society of America: 2018 Update on Diagnosis, Treatment, Chemoprophylaxis, and Institutional Outbreak Management of Seasonal Influenza. Clin Infect Dis. 2019;68(6):e1–e47. Available at: <https://www.idsociety.org/practice-guideline/influenza/>. Accessed May 23, 2022.
5. Centers for Disease Control and Prevention (CDC). Influenza Antiviral Medications: Summary for Clinicians. Available at: <https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm>. Updated January 25, 2021. Accessed May 23, 2022.
6. Centers for Disease Control and Prevention (CDC). Healthy Habits to Protect Against Flu. Updated August 26, 2021. Available at: <https://www.cdc.gov/flu/prevent/actions-prevent-flu.htm>. Accessed June 24, 2022.