

The Underutilization of COVID-19 and Flu Antivirals



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INTRODUCTION

The introduction of COVID-19 and influenza (flu) antivirals marked a significant advancement in the battle against two potentially life-threatening viral respiratory diseases. These treatments, when started as soon as possible after the first signs of infection, can significantly reduce hospitalization and mortality rates ([CDC](#)). COVID-19 and flu antivirals are especially beneficial for vulnerable populations, including the elderly, immunocompromised individuals, and those with comorbidities like cardiovascular disease or diabetes. However, despite their proven benefits, data suggest a concerning gap between the need for these treatments and prescription rates, particularly among high-risk and underserved communities.

While cost can be a factor contributing to disparities in antiviral access, financial barriers alone do not fully account for their underutilization. Even when cost is not a significant factor—such as with widely available low-cost generic flu antivirals—patients still face challenges accessing treatment, as antiviral medications require a prescription from a healthcare provider. This can pose challenges for patients with limited access to doctors or healthcare facilities, often leading to treatment delays and compromising health outcomes. Studies also reveal that many older adults and individuals with high-risk conditions are not offered antiviral treatment, while others remain unaware of the importance of early intervention.

This literature review explores the barriers contributing to under-prescription and low uptake of COVID-19 and flu antivirals. It examines a range of challenges, including financial, structural, and systemic issues, as well as gaps in provider and patient awareness. Finally, it discusses strategies to address these barriers and optimize access, ensuring these life-saving treatments reach the patients who need them most.

BENEFITS OF COVID-19 AND FLU ANTIVIRAL TREATMENT

COVID-19 and flu antivirals like Paxlovid (nirmatrelvir and ritonavir), Veklury (remdesivir), and Lagevrio (molnupiravir) have proven effective in reducing the progression of severe illness, preventing hospitalizations, and lowering mortality among high-risk patients with mild to moderate symptoms. For example, a recent study showed that the COVID-19 antiviral Paxlovid reduced hospitalization or death rates by approximately 44% in high-risk populations and showed an 86% reduction in risk in a clinical trial setting ([Yale Medicine](#)).

Flu antivirals provide similar benefits, particularly for high-risk groups, by shortening the duration and severity of symptoms and minimizing complications, such as secondary bacterial infections. During the 2016–2018 flu seasons, flu antivirals significantly reduced both mortality and hospitalization rates among Medicare patients: mortality dropped from 4.3% in untreated patients to 1.6% in those treated, and hospitalization rates were similarly reduced ([NIH](#)). Despite these benefits and widespread availability of low-cost generic options, early antiviral treatment rates for flu among high-risk patients remain low and have fallen since the COVID-19 pandemic.

Treatment rates for flu have also declined among children. For example, antiviral use among hospitalized children fell from 70–86% during the 2017–2018 season to under 60% in 2023–2024. Additionally, data from one network show that only 31% of patients at high risk for flu complications were prescribed antivirals in outpatient settings ([CDC](#)).

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Challenges and Gaps in Uptake: Why Are COVID-19 and Flu Antivirals Underutilized?

1 Provider Awareness and Education Gaps

Provider awareness has played a role in the underutilization of antivirals for COVID-19 and flu. This issue is influenced by a variety of factors, including limited familiarity with evolving treatment protocols, concerns over potential side effects, and misunderstandings about antiviral resistance. As a result, healthcare may avoid prescribing antivirals, particularly for patients presenting with mild-to-moderate symptoms. While symptom management may be appropriate in some cases, this approach can leave high-risk individuals without the added protection antivirals provide.

A CDC study of high-risk COVID-19 patients receiving care through the Veterans Health Administration (VHA) highlights substantial gaps in antiviral use. Among 110 diagnosed patients, while 20% declined treatment when it was offered, 80% were not offered antiviral treatment as an option. Of those not offered treatment, 50% of patients were told their symptoms were “too mild” to warrant antiviral intervention, despite their heightened risk of severe disease and the critical need to begin treatment as soon as possible after the first symptoms appear ([CDC](#)).

2 Cost Barriers to Antiviral Uptake

The cost—both real and perceived—of antivirals is a significant barrier to uptake, particularly for low-income and underserved communities. Some flu antivirals, such as generic Tamiflu, are low-cost, and the CDC recommended COVID-19 antiviral Paxlovid has been available at low-cost or free to most eligible patients through PAXCESS, the U.S. Government Patient Assistance Program operated by Pfizer (USG PAP), or with co-pay assistance from Pfizer for the commercially insured. However, both medications require a prescription, which can be a costly and time-consuming barrier for many, delaying access to treatments that need to be started within hours or a few days after the first symptoms appear to be most effective.

While the government’s engagement in the PAXCESS program enabled Medicare patients prescribed Paxlovid to receive the medication at no cost, in December 2024, the Department of Health & Human Services (HHS) Administration for Strategic Preparedness and Response (ASPR) [announced a number of changes to the program](#) that may add costs and/or delay or discourage access to treatment for many individuals at the greatest risk of serious illness from COVID-19.

The HHS/ASPR update extended eligible Medicare patient access to the USG PAP beyond the program’s initial December 31, 2024 end date. However, the program changes also included the addition of means testing (income requirements) to its eligibility criteria. Beginning March 1, 2025, Medicare patients who are under-insured (those without Part D or other prescription drug coverage), who face a high co-pay for Paxlovid and cannot afford the medication based on income, may be eligible to receive Paxlovid at no cost through the USG PAP. Medicare beneficiaries who do not have prescription coverage and cannot afford the medication may also qualify for Paxlovid as “uninsured” under the USG PAP.



Other changes came into effect on January 1, 2025. Patients covered by Medicaid, Tricare, or Veterans Affairs Community Care Network will need to consult their health plan for coverage – those with high co-pays may be eligible to enroll in the USG PAP; and eligible uninsured individuals who cannot afford the medication can also enroll in the USG PAP. HHS also announced that federal entities including Department of Defense (DoD) Health Centers, Indian Health Service Centers, and Health Resources and Services Administration (HRSA)-supported health centers will continue to receive free Paxlovid from the HHS supply through 2028 or until that supply is depleted. For commercially insured patients, there will be no change to Pfizer’s PAXCESS Co-Pay Savings program enabling eligible patients to pay as little as \$0 through 2025.

Without targeted interventions, means testing and Medicare co-pays could deter patients from seeking treatment and exacerbate access disparities, especially among high-risk populations.

3 Access Issues

While all eligible high-risk patients stand to benefit from early antiviral intervention, minority and low-income groups often experience challenges with access and lower prescription rates for these treatments. A study from the National Institutes of Health (NIH) found that Black patients testing positive for COVID-19 were approximately 36% less likely to be prescribed Paxlovid compared to white patients, and Hispanic patients were prescribed it 29.9% less often than white patients ([NIH](#)), suggesting that healthcare biases and logistical barriers may play critical roles in limiting access for these groups.

Healthcare Bias and Provider Decision-Making

Unconscious assumptions made by providers, can affect prescribing behavior, sometimes resulting in fewer prescriptions for high-risk patients from underserved communities. Providers may also unintentionally downplay symptoms in minority patients or prioritize alternative forms of care, such as over-the-counter symptom management, rather than antiviral prescriptions.

In rural areas, long distances to the nearest pharmacy can be prohibitive, particularly for patients without reliable transportation or the means to afford travel.

Limited Healthcare Infrastructure in Underserved Areas

Access to healthcare can often be a significant barrier for patients in rural, low-income, and minority communities. Many of these areas are classified as “pharmacy deserts” or “primary care deserts,” meaning that pharmacies are sparse or nonexistent making it difficult for patients to obtain prescribed antivirals within the short window in which these drugs are most effective. In rural areas, long distances to the nearest pharmacy can be prohibitive, particularly for patients without reliable transportation or the means to afford travel. Similarly, low-income urban neighborhoods often face a shortage of pharmacies, leaving residents with limited options for obtaining antiviral medications ([USC Today](#)). These areas may also have fewer healthcare providers, which can result in longer wait times for appointments, delaying prescriptions and reducing timely antiviral intervention.

The Digital Divide and Telehealth Limitations

The COVID-19 pandemic accelerated the adoption of telehealth as a vital tool to help reach patients remotely, yet it also highlighted limitations for those who lack reliable internet access and those with limited familiarity with digital platforms. Studies have shown that more than 30% of urban households do not have access to high-speed internet, with even higher rates in certain minority and rural communities ([Science Direct](#)). The lack of access and experience with technology can prevent high-risk patients from accessing digital care and timely consultations for an antiviral prescription.

4 Patient Awareness and Perception Issues

Limited public awareness and misconceptions about the benefits of antivirals significantly impact their utilization. Many patients are either unaware of the need for early intervention or mistakenly believe that antivirals only benefit those who are severely ill. Paxlovid, for example, has proven to be highly effective in preventing severe COVID-19 outcomes but remains underused in the U.S., even among high-risk populations. A July 2023 survey of 1,430 U.S. adults revealed that 85% had little or no awareness of Paxlovid, with 31% having never heard of it ([Health Affairs](#)). Misconceptions about its effectiveness (39%), side effects (86%), and timing requirements (61%) were prevalent, especially among medically vulnerable groups, including unvaccinated individuals, those with lower education levels, and Black and Hispanic/Latino adults ([Advisory Board](#)).

Limited Public Health Messaging on Antivirals

Public health efforts have largely prioritized messaging around vaccines and symptom management, with minimal focus on antiviral options. This lack of awareness has left many individuals, particularly those at higher risk, unaware of the benefits and availability of antiviral treatments. Consequently, patients are less likely to seek these treatments promptly ([Health Affairs](#)).

Cultural and Language Barriers to Antiviral Awareness

Language and cultural barriers may also contribute to limited antiviral awareness. Non-English-speaking communities often have reduced access to information about antivirals, and cultural perceptions may impact acceptance of traditional medical treatments ([NIH](#)). Without adequate language support and culturally sensitive education, these populations face heightened challenges in understanding and accessing antiviral options.



CONCLUSION

Addressing barriers to antiviral uptake requires a comprehensive, multi-faceted approach. Enhancing provider confidence through targeted education on the efficacy, safety, and appropriate use of COVID-19 and flu antivirals can significantly improve prescribing practices.

Addressing cost and coverage.



Policymakers can prioritize including antivirals on the list of drugs covered by CMS and providing for provider and pharmacist reimbursement to ensure continued affordability for high-risk populations reliant on Medicare and Medicaid. Encouraging formulary coverage and reimbursement for antivirals and maintaining patient assistance programs for the uninsured and underinsured can help address financial barriers, enabling timely treatment within the critical window for effectiveness.

Addressing systemic healthcare disparities.



Strengthening collaborations with Federally Qualified Health Centers (FQHCs), non-profits, and community health organizations can extend antiviral access to underserved populations. Incentivizing pharmacies and healthcare providers to operate in primary care and pharmacy deserts can further bridge these gaps. Additionally, cultural competency training and equitable care frameworks are essential to help address biases and improve prescribing practices.

Bridging the digital divide.



Expanding the nation's broadband infrastructure, promoting digital literacy, and providing tools to navigate telehealth services can help facilitate timely antiviral consultations, particularly in underserved areas.

Addressing patient awareness and perceptions.



Public health campaigns emphasizing the importance of early treatment, highlighting how antivirals work, and providing clear, actionable information can help address questions and encourage people to test early and ask about available treatments at the first sign of infection.

By implementing these strategies, we can ensure that life-saving antiviral treatments are accessible to those who need them most.

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