

Antiviral Therapy for Influenza: Current Recommendations

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Abstract

This abstract provides a concise overview of the article titled "Antiviral Therapy for Influenza: Current Recommendations." It briefly summarizes the key points discussed in the article. Influenza, a contagious respiratory illness, presents an ongoing public health challenge. Antiviral therapy is a critical component of influenza management. This article outlines the current recommendations for antiviral treatment, focusing on early initiation, diagnostic considerations, age-specific treatments, duration, prophylaxis, antiviral resistance, and considerations for pregnant and breastfeeding individuals. Staying up-to-date with these guidelines is essential for healthcare providers to effectively combat influenza and mitigate its impact on vulnerable populations.

Keywords: Antiviral therapy; Current recommendations; Influenza management; Early initiation; Diagnostic testing

Introduction

Influenza, commonly known as the flu, is a contagious respiratory illness caused by influenza viruses. It poses a significant public health concern, leading to seasonal epidemics and occasional pandemics with the potential for widespread morbidity and mortality [1]. Antiviral therapy plays a crucial role in the management of influenza, and staying up-to-date with the current recommendations is essential to effectively combat the virus. In this article, we will explore the latest recommendations for antiviral therapy in influenza management [2,3].

Influenza, commonly referred to as the flu, is an infectious respiratory disease caused by influenza viruses. It is characterized by its rapid onset of symptoms, which often include fever, cough, sore throat, body aches, and fatigue. Influenza poses a considerable public health challenge due to its potential for seasonal epidemics and periodic pandemics, causing substantial morbidity and mortality worldwide. To effectively combat this contagious illness, antiviral therapy plays a pivotal role. In this article, we delve into the current recommendations for antiviral therapy in the management of influenza [4].

The risk of serious complications, hospitalizations and mortality from influenza is higher among persons aged 65 years and over, very young children aged 0–6 months, and persons of any age with high-risk medical conditions. Rates of influenza-associated hospitalizations have varied substantially by age group.

Understanding influenza antiviral medications

Antiviral medications for influenza are designed to reduce the severity and duration of symptoms, as well as to prevent complications and the spread of the virus. There are four FDA-approved antiviral drugs for influenza: oseltamivir (Tamiflu), zanamivir (Relenza), peramivir (Rapivab), and baloxavir marboxil (Xofluza). These medications are most effective when administered early in the course of the illness, ideally within 48 hours of symptom onset [5].

Current recommendations for antiviral therapy

The recommendations for antiviral therapy in influenza management have evolved over time, taking into account the emergence of antiviral resistance and advances in clinical research. As of the most recent guidelines, here are the key recommendations:

- **Early initiation:** Antiviral treatment should be initiated

as soon as possible, especially in individuals at high risk of influenza complications. This includes young children, elderly individuals, pregnant women, individuals with chronic medical conditions, and immunocompromised patients.

- **Testing considerations:** In many cases, healthcare providers may diagnose and treat influenza based on clinical symptoms, without laboratory testing. However, in certain situations, diagnostic testing for influenza is recommended to confirm the diagnosis and guide antiviral therapy.
- **Age considerations:** Oseltamivir and zanamivir are approved for the treatment of influenza in individuals of all ages, including children as young as two weeks. Peramivir is approved for individuals aged two years and older, and baloxavir marboxil is approved for those aged 12 years and older [6].
- **Duration of treatment:** The recommended duration of treatment for influenza with antiviral medications is typically five days. However, this may be extended for severely ill patients, and healthcare providers should closely monitor the patient's progress.
- **Prophylaxis:** Antiviral medications can also be used for prophylaxis to prevent influenza in certain high-risk individuals during outbreaks or in close contacts of confirmed cases.
- **Antiviral resistance:** Monitoring for antiviral resistance is crucial, as influenza viruses can develop resistance to specific antiviral drugs. Healthcare providers should be aware of the current patterns of resistance and adjust their treatment choices accordingly.
- **Pregnancy and breastfeeding:** Antiviral treatment is considered safe for pregnant women and breastfeeding mothers, and the benefits of treatment often outweigh any potential risks [7].

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Antiviral drugs for influenza

The management of influenza primarily relies on antiviral medications. The two classes of antiviral drugs commonly used for influenza treatment are neuraminidase inhibitors and adamantanes.

- **Neuraminidase inhibitors:** Oseltamivir (Tamiflu), zanamivir (Relenza), and peramivir (Rapivab) are neuraminidase inhibitors recommended for influenza treatment. These drugs work by inhibiting the enzyme neuraminidase, preventing the release of new viral particles from infected cells. Oseltamivir is available in both oral and intravenous forms, making it suitable for a wide range of patients [8]. These drugs are effective against both influenza A and B viruses and are most effective when administered within 48 hours of symptom onset.

- **Adamantanes:** Amantadine and rimantadine are older antiviral drugs that have been used in the past. However, they are no longer recommended for the treatment of influenza A viruses due to the widespread development of resistance. The Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO) no longer recommend these drugs for influenza treatment [9,10].

Annual influenza vaccination is the primary method for preventing influenza and its sequelae. The primary target groups recommended for annual vaccination include:

- All persons aged 50 or over
- Persons of any age who have chronic medical conditions
- Persons who live with or care for persons at high risk, i.e. health care workers
- All women who are pregnant during the influenza season (October–March).

Conclusion

Antiviral therapy remains a valuable tool in the management of influenza, especially in high-risk individuals and during outbreaks. The current recommendations emphasize the importance of early initiation of treatment, the choice of antiviral medication based on patient age, and monitoring for antiviral resistance. Additionally, healthcare providers should consider influenza testing in cases where it can aid diagnosis and treatment decisions.

Antiviral therapy remains a cornerstone in the management of influenza, significantly impacting patient outcomes, especially in high-risk individuals. Staying informed about and adhering to current recommendations is essential to optimize the use of antiviral medications and minimize the impact of influenza on individuals and communities. As influenza strains and antiviral medications

evolve, healthcare providers play a critical role in implementing these guidelines to maintain public health and safety.

Staying informed about the latest guidelines for antiviral therapy in influenza is essential, as they can change based on the emergence of new strains, the availability of new medications, and the latest clinical research. By adhering to these recommendations, healthcare providers can help reduce the impact of influenza on individuals and communities, ultimately working toward a healthier and safer society.

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Conflict of Interest

None

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