



Title	Antiviral Drugs for the Treatment of Influenza: A Systematic Review and Economic Evaluation
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Aim

To assess the effectiveness and cost effectiveness of antiviral drugs in treating seasonal influenza in healthy and at-risk individuals (eg, people with lung or heart diseases, diabetes, or other health problems).

Conclusions and results

The use of neuraminidase inhibitors to treat healthy people presenting with flu symptoms is unlikely to be the most appropriate course of action during a seasonal outbreak. The systematic review combined data from 29 trials of zanamivir (relenza) or oseltamivir (tamiflu). The trials varied in quality, with completeness of follow-up an issue in many, despite the shortness of duration (up to 28 days).

The review found that, compared to placebo, zanamivir or oseltamivir reduced the time to alleviation of influenza symptoms by approximately 0.5 to 1.0 day in otherwise healthy adults. For people considered 'at risk' of influenza-related complications, the time to alleviation of symptoms was generally reduced by up to 2.0 days with zanamivir, and less than 1.0 day with oseltamivir across populations. These reductions in symptoms are relatively small in the context of the overall length of symptoms for most patients. Where larger reductions in symptom duration were observed, data were limited, and there was considerable uncertainty about the results.

Insufficient data were available from which to draw conclusions regarding the potential of either zanamivir or oseltamivir to reduce the incidence of complications, eg, bronchitis or pneumonia.

Important variations appeared in the cost-effectiveness estimates, with more favorable estimates in the at-risk populations (eg, adults and children with comorbid conditions and the elderly) compared with otherwise healthy populations. Based on cost-effectiveness considerations in each of the separate at-risk populations considered, zanamivir appeared to be the optimal treatment. In contrast, oseltamivir was considered the optimal treat-

ment in healthy populations (both adults and children). However, the overall differences between the two antivirals, in terms of the absolute estimates of both costs and outcomes, were minor across all populations.

Recommendations

Although the evidence for clinical effectiveness in healthy and at-risk populations is similar, and the data relating to complications is lacking in both groups, it is reasonable to recommend precautionary treatment to people at increased risk of suffering influenza-related complications. Even if active management of seasonal influenza in healthy adults was deemed a public health priority, recommending the use of antiviral drugs to treat healthy people presenting with symptoms is unlikely to be the most appropriate course of action.

Methods

See Executive Summary link at www.hta.ac.uk/project/1701.asp.

Further research/reviews required

See Executive Summary link at www.hta.ac.uk/project/1701.asp.