

Zanamivir

A Viewpoint by Douglas M. Fleming

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Zanamivir is the first of the neuraminidase inhibitors. It has been shown to be effective in reducing the severity^[1] and duration^[2] of influenza symptoms when given early in the illness, with minimal adverse effects. Zanamivir is specific for use in infections due to influenza virus. However, influenza-like illnesses are common, most are minor, and the causative organism cannot be identified from the clinical presentation.

How then can zanamivir be used effectively?

- Young children mount a rapid febrile response to respiratory viral infections and are often seen by doctors relatively early in the illness. Effective use of zanamivir will depend mainly on rapid and accurate diagnosis. A near patient test needs to be available at low cost, with results available in a few minutes with high accuracy in circumstances where the quality of specimens may be less than ideal.
- Adults (aged 15 to 64 years) do not usually consult within 36 hours of symptom onset. Change towards earlier consultation is unlikely; it would involve many persons who did not have serious illness or illness due to influenza virus. Thus, an 'over-the-counter' arrangement, with pharmacists

(or even the patients themselves) undertaking diagnostic tests, may have a role. Patient payment for a diagnostic test would break new ground in some countries. Nevertheless, inappropriate use of zanamivir must be avoided, particularly until we can be reassured that neuraminidase inhibition does not promote the emergence of resistant strains.

- Elderly patients (aged ≥ 65 years) tend to consult later in the illness, often because of lingering respiratory symptoms. To date, trials have concentrated on the healthy and more information is needed in patients with comorbid conditions.

An illness lasting 5 or 6 days gives little opportunity for improvement when medication is started on the third day. However, as the severity of the illness is reduced we would expect fewer complications. More information is needed here, especially as trials published so far have not included a serious epidemic.

References

1. Aoki F, Fleming D, Lacey L, et al. Impact of treatment of influenza with zanamivir on patients' health status, sleep quality, productivity and healthcare use [in 384] [N-15]. 37th Interscience Conference on Antimicrobial Agents and Chemotherapy 1997 Sep 28-Oct 1
2. Hayden FG, Osterhaus ADME, Treanor JJ, et al. Efficacy and safety of the neuraminidase inhibitor zanamivir in the treatment of influenzavirus infections. *N Engl J Med* 1997 Sep 25; 337: 874-80