

Oseltamivir

A Viewpoint by D.M. Fleming

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Oseltamivir (GS4104) is an orally administered prodrug of the neuraminidase inhibitor GS4071. In community-based clinical trials of naturally occurring influenza in adults, it has been shown to be an effective treatment reducing both the duration and severity of the illness, and effective when used prophylactically. The duration of viral shedding was reduced in patients receiving oseltamivir experimentally infected with influenza A. As with amantadine and zanamivir, the earlier the treatment is given the greater the benefit. Though sickness was observed as a significant adverse effect, it was not sufficient to cause recipients to withdraw from clinical trials. Prescribed in tablet form as opposed to an inhaled form, it will be preferred by many patients.

We now have 2 neuraminidase inhibitors available to treat both influenza A and probably influenza B. The rationale of annual vaccination programmes rests chiefly on the excess mortality and high hospitalisation and economic consequences

of influenza epidemics, which, though particularly identifiable in persons with cardiorespiratory comorbidity are certainly not confined to these groups. It is equally for these reasons that effective and safe treatments of influenza are needed. Because at least to date in clinical trials, the emergence of resistant strains of influenza virus has not been a problem, the neuraminidase inhibitors greatly increase our capacity to manage a pandemic situation. They are not a substitute for routine vaccination but their availability will influence the population to be targeted for vaccination.

Rational use of these drugs depends on community-based surveillance of influenza, satisfactory arrangements for delivery early in the course of the illness, and the ability to distinguish influenza infections which are minor and requiring no treatment from those which are severe. A high temperature is one marker of severity; variations in baseline temperature and in temperature response to illness limit its use as a sole marker. Physicians and the funders of health care cannot relish the prospect of universal treatment of people with minor illness, unless we truly cannot separate these from those more seriously ill. ▲ ▲