

**Minimal benefits from neuraminidase inhibitors in influenza**

---

<b>Clinical Question</b>	How effective are neuraminidase inhibitors (NIs) in preventing and treating influenza in healthy adults and children?
<b>Bottom Line</b>	Both oseltamivir and zanamivir reduced the time to symptomatic improvement in adults (but not asthmatic children) with influenza-like illness. The size of this effect was small, approximately half a day. Neither agent reduced the risk of complications of influenza, particularly pneumonia, nor reduced risk of hospitalisation or death, even in individuals at higher risk of complications, such as children with asthma or the elderly. When used to prevent the occurrence of influenza in individuals or families, there was minimal effect. Oseltamivir increased the risk of adverse effects, such as nausea, vomiting, psychiatric effects and renal events in adults and vomiting in children. Overall, there was little support for the use of NIs to prevent serious outcomes or as prophylactic agents during influenza epidemics.
<b>Caveat</b>	All trials were sponsored by the manufacturers. The mechanism of action proposed by the producers (influenza virus-specific) did not fit the clinical evidence which suggested a multi-system and central action. Statements made on the capacity of oseltamivir to interrupt viral transmission and reduce complications were not supported by any data the reviewers were able to access.
<b>Context</b>	NIs are stockpiled and recommended by public health agencies for treating and preventing seasonal and pandemic influenza. They are used clinically worldwide. This review was based on manufacturers' reports to regulators (clinical study reports) and the regulators' comments.
<b>Cochrane Systematic Review</b>	<a href="#">Jefferson T et al. Neuraminidase inhibitors for preventing and treating influenza in healthy adults and children. Cochrane Reviews, 2014, Issue 4. Art. No.: CD008965.DOI: 10.1002/14651858.CD008965.pub4.</a> This review contains 46 studies involving 24,251 participants.

---

**PEARLS No. 461, March 2015. C1****By Brian R McAvoy** Honorary/Adjunct Professor of General Practice at the Universities of Auckland, Melbourne, Monash and Queensland.