



# Effective Health Care

## Antivirals for Influenza

### Nomination Summary Document

#### Results of Topic Selection Process & Next Steps

- *Antivirals for Influenza*, will not go forward for refinement as a systematic review. Though this is an important topic, other topics have higher priority at this time.

#### Topic Description

**Nominator(s):** Individual on behalf of a public policy maker/payer

**Nomination Summary:** The nominator is interested in understanding the effects of influenza antiviral treatment, administered within the first 36 hours of symptom onset (i.e., early treatment), for reducing the risk of serious influenza-related complications. Specifically, the group would like to understand the comparative effectiveness of various antiviral therapies (e.g., neuraminidase inhibitors).

This topic was given high priority by a multi-disciplinary stakeholder panel convened to identify and select important research questions on respiratory tract infection amenable for systematic review.

#### Staff-Generated PICO

**Population(s):** Individuals for whom influenza antiviral treatment can be administered within 36 hours after symptom onset. Specifically:

- Persons with lab-confirmed or highly suspected influenza infection at high risk for developing complications;
- Persons requiring hospitalization for lab-confirmed or highly suspected influenza infection at high risk for developing complications;
- Outpatients with lab-confirmed or highly suspected influenza infection who are not at increased risk of complications and who wish to shorten duration of illness or who are in close contact with persons at high risk of complicated influenza.

**Intervention(s):** Influenza antivirals

**Comparator(s):** Placebo and other influenza antivirals

**Outcome(s):**

- Reduction in serious influenza-related complications (e.g., bacterial or viral pneumonia or exacerbation of chronic diseases)
- Reduction in duration of hospitalization or hospitalization rates
- Reduction in time to return to work or school
- Reduction in all-cause and influenza-specific mortality rates

**Key Questions from Nominator:** What is the comparative effectiveness of different influenza antiviral therapies for reducing a) the risk of infection-related complications, b) duration of hospitalization, c) hospitalization rates, d) time to return to work or school, and d) all-cause and influenza-specific mortality, among individuals for whom treatment can be administered within 36 hours after symptom onset?

## Considerations

- The topic meets all EHC Program appropriateness criteria. (For more information, see <http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/>.)
- Seasonal influenza has the potential to affect a large proportion of the population, including healthy individuals and those considered at-risk for health related complications. There are two neuraminidase inhibitors, oseltamivir and zanamivir, currently used in the US for treatment of influenza.
- A number of guidelines, including a guideline from the Centers for Disease Control and Prevention (CDC) informed by the Advisory Committee on Immunization Practices (ACIP), titled *Antiviral agents for the treatment and chemoprophylaxis of influenza --- recommendations of the Advisory Committee on Immunization Practices*, recommend the use of antivirals for reducing the duration of symptoms in adult and pediatric patients with influenza. (The CDC guidelines are available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6001a1.htm>.)
- Several high-quality systematic reviews are available on the comparative effectiveness of various antiviral therapies for influenza.
  - Wang K, Shun-Shin M, Gill P, Perera R, Harnden A. Neuraminidase inhibitors for preventing and treating influenza in children (published trials only). Cochrane Database of Systematic Reviews 2012, Issue 4. Art. No.: CD002744
  - Jefferson T, Jones MA, Doshi P, Del Mar CB, et al. Neuraminidase inhibitors for preventing and treating influenza in healthy adults and children. Cochrane Database of Systematic Reviews 2012 Jan;1: CD008965
- There are also 18 ongoing clinical trials studying the effects of antivirals on patients at higher risk for complications due to influenza infection.
- While this topic is highly relevant and important, given the existence of high quality systematic reviews, guidelines, and a number of clinical trials to be completed in the next 2-3 years, no further activity will be undertaken on this topic at this time.