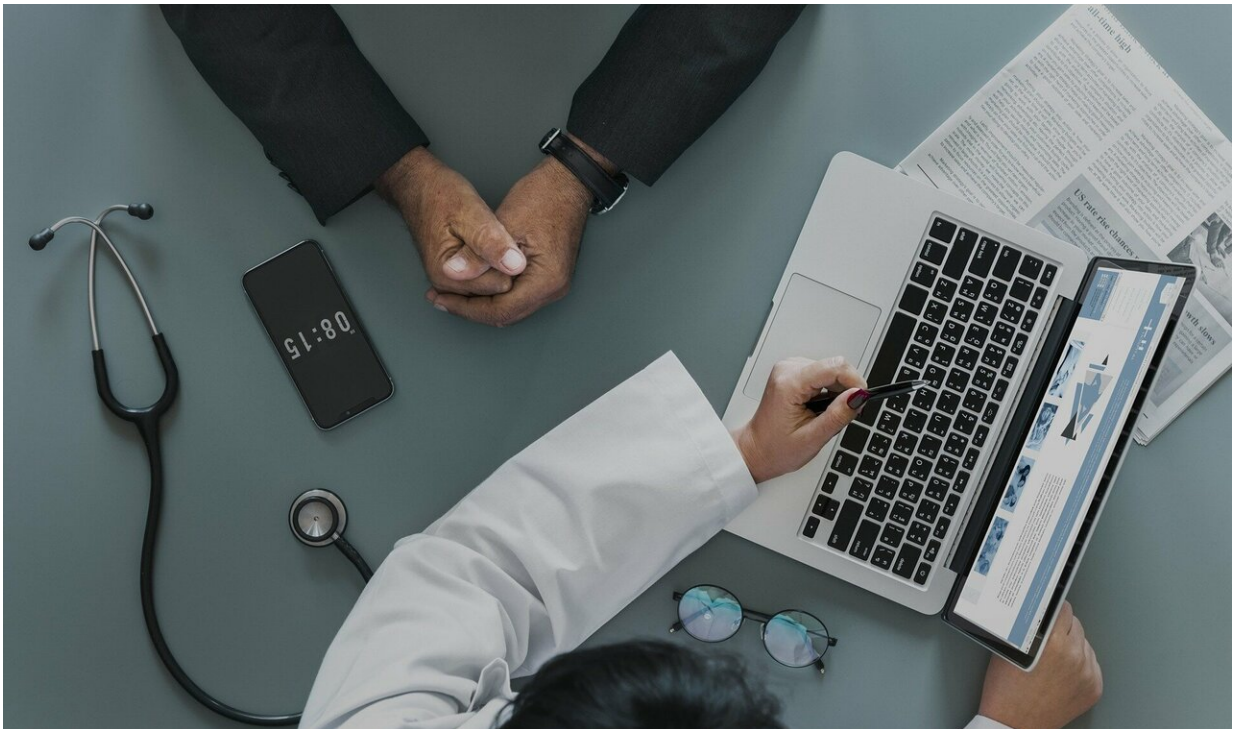


# Flu antiviral has bigger benefits for sicker, older patients

December 20 2019

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A Europe-wide study conducted over three flu seasons finds that the antiviral drug, oseltamivir (Tamiflu), can help people recover from flu-like illness about one-day sooner on average, with older, sicker patients who have been unwell for longer recovering two-to-three days sooner.

Published today in *The Lancet*, the European Commission-funded "ALIC4E" study was led by the Universities of Oxford (UK) and Utrecht (The Netherlands).

Despite being stockpiled in the UK since 2006 and being widely prescribed during the swine flu outbreak in 2009, oseltamivir remains one of the most controversial drugs in use. This is due to a lack of evidence from independent clinical trials to demonstrate its effectiveness in everyday care overall, and whether it benefits key groups of patients.

A member of a class of drugs called neuraminidase inhibitors, oseltamivir is recommended by public health agencies worldwide for treating and preventing severe outbreaks of seasonal and [pandemic influenza](#).

Carried out with 3266 patients recruited from general practices across 15 European countries, and with 26 partner organizations, it is the first large-scale publicly funded, international trial of its kind to assess antiviral treatment for influenza-like illness in primary care.

As well as looking at the overall benefits of oseltamivir, the researchers investigated the effects in key groups of patients, such as the very young or elderly, who consulted their general practitioner (GP) with symptoms of flu-like illness.

Lead Oxford investigator Professor Chris Butler, a GP in the Cwm Taf University Health Board in Wales and Professor of Primary Care at the University of Oxford's Nuffield Department of Primary Care Health Sciences, said:

"We found that oseltamivir helps people recover from flu-like illness one day sooner, on average, than would be the case without it.

"Older, sicker, patients with comorbidities and a longer duration of previous illness showed greater overall benefit, and could expect to see their symptoms clear up two-to-three days sooner than those who had not received the drug. However, we also found that people who took oseltamivir experienced more vomiting and nausea.

"By providing evidence through a study of this scale, and using a novel clinical trial approach, we expect the results will be of great interest to governments, policy makers, companies, practitioners and patients. The vision of the EU in funding this study has to be acknowledged, a study of this kind could only have been done with extensive international clinical and research collaboration supported by far-sighted funders who are committed to improving the evidence to support patient care on a wide scale. Studies of this kind put Europe at the forefront of innovative, large scale clinical trials in clinical settings."

The study was part of a large multidisciplinary EU project, PREPARE, coordinated by Professor Herman Goossens from the University of Antwerp, Belgium.

Co-lead investigator Professor Theo Verheij, Professor of General Practice at the Julius Center, UMC Utrecht, the Netherlands, explained: "What made the ALIC4E study different to those that came before it was that it took place across three flu seasons, between January 2015 and April 2018 in 15 European countries.

"It was also independently led, designed to better reflect how the drug would be used in real-world practice, and assessed a relevant outcome, combining return to usual activities with fever, headache, and muscle ache being minor or absent. We used a novel, flexible study design to not only identify average effects but also to see whether there was any specific additional benefit for those with certain risk factors, allowing for more accurate and personalised prescribing decisions to be made."

The research also found that:

- Contrary to many clinical guidelines, beginning treatment with oseltamivir 48 hours after symptoms first appear results in similar benefits as taking it within 48 hours of symptoms first appearing;
- Slightly fewer antibiotics (a 4% reduction) were used by those who were given oseltamivir;
- There were slightly fewer reports (a 6% reduction) of new influenza-like infections in the households of those that got the drug.
- Participants with confirmed influenza did not benefit more than those who tested negative for the virus.

The study confirmed the known side effects of [oseltamivir](#), with patients taking it showing higher incidences of vomiting or nausea, suggesting that GPs will need to weigh the negative effects of the drug against the potential benefits for different groups of patients.

The full paper, "Oseltamivir plus usual care versus usual care for influenza-like illness in [primary care](#): an open-label, pragmatic, randomized controlled trial," is published in *The Lancet*.

**More information:** Christopher C Butler et al. Oseltamivir plus usual care versus usual care for influenza-like illness in primary care: an open-label, pragmatic, randomised controlled trial, *The Lancet* (2019). [DOI: 10.1016/S0140-6736\(19\)32982-4](https://doi.org/10.1016/S0140-6736(19)32982-4)

Provided by University of Oxford

Citation: Flu antiviral has bigger benefits for sicker, older patients (2019, December 20)

retrieved 2 May 2024 from

<https://medicalxpress.com/news/2019-12-flu-antiviral-bigger-benefits-sicker.html>

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