

Researchers warn: 'Antivirals might be wasted on the elderly'

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A model of influenza transmission and treatment suggests that, if the current swine flu pandemic behaves like the 1918 flu, antiviral treatment should be reserved for the young. Researchers writing in the open access journal *BMC Infectious Diseases* found that, in this situation, providing the elderly with antiviral drugs would not significantly reduce mortality, and may lead to an increase in resistance.

Stefano Merler, from the Bruno Kessler Foundation, an Italian research organization, worked with researchers from the Istituto Superiore di Sanità to model the effect of antiviral treatment on the spread of [influenza](#).

He said, "Although it is too early to confidently predict some important features of the ongoing influenza pandemic, the use of antivirals is confirmed to be the most effective single intervention, in the absence of vaccines. It requires, however, a very large stockpile of [antiviral drugs](#). Our work demonstrates that even in countries where the antiviral stockpile is not sufficient to treat 25% of the population, the minimum level suggested by the WHO, it is possible to reduce morbidity and excess mortality by prioritizing the use of antivirals by age".

Merler and his colleagues modeled the effects of flu outbreaks of varying virulence, finding that, depending on the behavior of the virus, treatment of over 65s may not lead to any significant reduction in the cumulative number of cases. He said, "Although a policy of age-specific prioritization of antiviral use will be controversial ethically, it may be the

most efficient use of stockpiled therapies. This is of particular importance for countries where the amount of drug stockpiled is well below the WHO's suggested level". Obtaining early estimates of the overall impact of the epidemic and of age-specific case fatality rates can thus be crucial for optimizing the use of antivirals during the ongoing influenza pandemic.

More information: Age-prioritized use of antivirals during an [influenza pandemic](#), Stefano Merler, Marco Ajelli and Caterina Rizzo, *BMC Infectious Diseases* (in press), www.biomedcentral.com/bmcinfectdis/

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