

Antiviral Prophylaxis and H1N1

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[Kathy Harben] Hello, I'm Kathy Harben. I'm talking with Dr. Richard Pebody, a consultant epidemiologist at the Health Protection Agency in London, United Kingdom. This conversation is based on a study of antiviral post-exposure prophylaxis and pandemic H1N1, which appears in the June 2011 issue of CDC's journal, *Emerging Infectious Diseases*. Welcome, Dr. Pebody.

[Richard Pebody] Good day. Thank you very much for the opportunity to talk.

[Kathy Harben] Dr. Pebody, what does antiviral post-exposure prophylaxis mean?

[Richard Pebody] Post-exposure prophylaxis, or PEP, as it's commonly known, is taking influenza-specific antiviral drugs after being exposed to a case of flu. The aim is to prevent infection. Now PEP means taking antivirals ideally within the 48 hour period following close contact with someone who's suffering from flu infection. During the initial phase of the pandemic in the UK, in April 2009, when the nature and severity of this new virus was unclear, antiviral prophylaxis was recommended for all close contacts of confirmed cases.

[Kathy Harben] How effective was antiviral prophylaxis for preventing infection in the UK?

[Richard Pebody] Antivirals were actually very effective when given to those in close contact with a person with flu in a household setting. At the two-week follow up in our study, we found that antivirals reduced the risk of confirmed flu infection by approximately 90 percent when given to contacts after onset of illness in the first person in the household.

[Kathy Harben] How well did antivirals work for preventing transmission to others, once a person was already infected?

[Richard Pebody] We found there was benefit of early treatment. Rapid treatment of the first case, called the primary case, within 48 hours, reduced transmission to other household members. In fact, we found that rapid treatment of the primary case reduced the risk of confirmed infection in household contacts by approximately 70 percent.

[Kathy Harben] In your study, you found that many more children got sick when the primary caretaker was a woman rather than a man. Why do think this was so?

[Richard Pebody] This was an unexpected finding. The fact that children are more likely to get sick when the primary case was a woman, most likely simply reflects the level of contact in a household. Mothers may be more likely to have closer contact with their children, particularly the very young children, than the fathers.

[Kathy Harben] Is there any situation when using antiviral prophylaxis wouldn't be a good idea?

[Richard Pebody] The UK has specific guidelines for the use of these drugs for treatment and prophylaxis purposes for seasonal flu. At the moment, we're no longer in a pandemic situation, so their use is generally restricted to people who may be exposed to flu infection and who are at

higher risk of a poorer outcome if they become infected. There are, however, people within certain groups to whom these antiviral drugs shouldn't be given or in whom care should be taken. For instance, use of zanamavir in people who've got underlying asthma.

[Kathy Harben] Dr. Pebody, what are some other ways to prevent transmission?

[Richard Pebody] There are a number of other ways to potentially reduce transmission of flu, in particular, the use of what we call non-pharmaceutical approaches, such as good respiratory hygiene to reduce droplet spread, for instance, through use of tissues when you sneeze and preventing transmission through direct contact by washing your hands frequently.

[Kathy Harben] Thank you, Dr. Pebody. I've been talking with Dr. Richard Pebody about the study, *Use of Antiviral Drugs to Reduce Household Transmission of Pandemic H1N1 2009, United Kingdom*, which appears in the June 2011 issue of CDC's journal, *Emerging Infectious Diseases*. You can see the entire article online at www.cdc.gov/eid.

If you'd like to comment on this podcast, send an email to eideditor@cdc.gov. That's eideditor – one word - @ cdc.gov. I'm Kathy Harben, for *Emerging Infectious Diseases*.

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