

Study: Quick responses to influenza outbreaks reduces illness and death

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Influenza outbreaks were shorter and resulted in fewer cases and fewer deaths at long-term care facilities that started residents on preventive antiviral medications within five days of the first case, compared to those that started later, according to a new study in the July 1 issue of *Clinical Infectious Diseases*.

Long-term care facilities housing elderly people are vulnerable to influenza outbreaks. Once an outbreak has occurred at a facility, antiviral medications are generally given to the residents to prevent more people from getting sick. This preventive administration of medication is known as chemoprophylaxis.

Common sense suggests that the sooner antiviral medications are given to long-term care residents who were potentially exposed to influenza, the more likely it would be that influenza infection could be prevented and facility outbreaks controlled. The new study confirms this by showing significant differences in outcomes when administering chemoprophylaxis within five days of detecting an influenza outbreak versus initiating medications more than five days after influenza outbreaks were identified.

"Prompt initiation of chemoprophylaxis after identification of influenza A in a long-term care facility can decrease the severity of influenza outbreaks in those settings," said Marcie Rubin, MPH, MPA, of the Columbia University Mailman School of Public Health.



Ms. Rubin and personnel from the New York City Department of Health and Mental Hygiene's Bureau of Communicable Diseases looked at data from 52 outbreaks of influenza A in New York City long-term care facilities over the course of three influenza seasons. An outbreak was defined as either a single laboratory-confirmed case or a cluster of two or more cases of influenza-like illness.

Facilities that began prophylaxis within five days of the influenza outbreak's detection had outbreaks that lasted only about a third as long as those institutions that took longer to begin treating people (6.7 vs. 18.3 days). Early intervention also led to far fewer cases (6.2 cases/100 residents vs. 10.5 cases/100 residents) and deaths (0.45 deaths/100 ill residents vs. 3.3 deaths/100 ill residents).

Given the striking benefits of a quick response, the authors recommend the development of strategies that might hasten an intervention. They suggest that facility staff increase their vigilance for diagnosing influenza cases. They also recommend that the process for collecting respiratory specimens for influenza detection be streamlined, with rapid testing and efficient communication of results from the laboratory to the staff.

The outbreaks the researchers studied occurred between 2001-2004, at which time amantadine was the frontline therapy for treatment and prophylaxis of influenza A. Since 2004, there has been increasing influenza resistance to amantadine and neuraminidase inhibitors have become the newest antivirals of choice. Further study is needed to determine whether rapid initiation of chemoprophylaxis with this class of antiviral drugs will result in similar positive impacts.

Source: Infectious Diseases Society of America



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