Findings suggest antivirals underprescribed for patients at risk for flu complications

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Patients likely to benefit the most from antiviral therapy for influenza were prescribed these drugs infrequently during the 2012-2013 influenza season, while antibiotics may have been overprescribed. Published in *Clinical Infectious Diseases* and now available online, the findings suggest more efforts are needed to educate clinicians about the appropriate use of antivirals and antibiotics in the outpatient setting.

Influenza is a significant cause of mortality and morbidity, resulting in more than 200,000 hospitalizations in the U.S. each year, on average. While annual vaccination remains the best defense, current recommendations advise prompt antiviral treatment for high-risk patients with influenza, including those who are hospitalized, who have severe influenza illness, or who are at higher risk for complications.

In their study, Fiona Havers, MD, MHS, and a team from the Centers for Disease Control and Prevention and several other institutions analyzed data for approximately 6,800 patients with acute respiratory illness who were seen at five outpatient care centers in Washington state, Wisconsin, Texas, Michigan, and Pennsylvania. The researchers examined prescription records for two influenza antiviral drugs (oseltamivir and zanamivir) and three common antibiotics (amoxicillin-clavulanate, amoxicillin, and azithromycin).

Overall, only 19 percent of the patients at high risk for influenza-associated complications who saw a primary-care provider within two days of the onset of their symptoms received antiviral treatment. Among

patients with laboratory-confirmed influenza, just 16 percent were prescribed antivirals. In contrast, 30 percent of these patients received one of the three antibiotics.

"Our results suggest that during 2012-'13, antiviral medications were underprescribed and antibiotics may have been inappropriately prescribed to a large proportion of outpatients with influenza," the authors wrote. "Continuing education on appropriate antibiotic and antiviral use is essential to improve health care quality."

While some of the antibiotics may have been appropriate for bacterial infections secondary to influenza, which is caused by a virus, it is likely most were unnecessary, potentially contributing to the growing problem of antibiotic resistance, the authors noted.

In a related editorial, Michael G. Ison, MD, MS, Medical Director of the Transplant & Immunocompromised Host Infectious Diseases Service for Northwestern Medicine and associate professor of Infectious Diseases and Organ Transplantation at the Northwestern University Feinberg School of Medicine, noted additional benefits associated with antiviral therapy for influenza, including reductions in lower respiratory infections, hospitalizations, antibiotic use, and stroke risk. This latest study "demonstrates that we are clearly failing our patients by not providing antiviral therapy to patients with influenza consistent with current guidelines while exposing many of the patients to antibiotics from which they likely derive little benefit."

Fast Facts

- Influenza is a significant cause of mortality and morbidity, resulting in more than 200,000 hospitalizations in the U.S. each year, on average.
- Annual vaccination remains the best defense against influenza;

prompt treatment with antiviral drugs is recommended for high-risk patients.

- This study suggests antivirals were underprescribed in the outpatient setting during the 2013-2013 influenza season for patients at high risk for influenza-related complications, while antibiotics may have been overprescribed.

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