

# Statins may reduce mortality in patients hospitalized with influenza

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The two main ways to prevent and control influenza today are annual immunization and antiviral drugs. A team of investigators has found that statins, cholesterol-lowering drugs, may offer an additional treatment to complement these approaches and reduce mortality among patients hospitalized with influenza. The findings are published in *The Journal of Infectious Diseases* and are now available online.

In an observational study led by Meredith L. Vandermeer, MPH, then with the Oregon Public Health Division in Portland, researchers used data for hospitalized adults during the 2007-2008 [influenza season](#) to evaluate the association between patients prescribed statins and influenza-related deaths. The data were drawn from the Centers for Disease Control and Prevention's Emerging Infections Program, which conducts active surveillance for patients hospitalized with confirmed influenza in 59 counties in 10 states.

Among 3,043 hospitalized patients with laboratory-confirmed influenza, 33 percent were given statin medications prior to or during hospitalization. After adjusting for various factors, patients not receiving statins were almost twice as likely to die from influenza as those who did receive the medication.

"Our study found that statins were associated with a decrease in odds of dying among cases hospitalized with laboratory-confirmed influenza, when adjusted for age, race, cardiovascular disease, [chronic lung disease](#), renal disease, [influenza vaccine](#) receipt, and initiation of antivirals

within 48 hours of admission," the study authors wrote.

Because the study was observational, the authors noted there may have been confounding factors that were not found through the review of patients' charts. Researchers also did not attempt to track the amount of statin use by patients during their entire hospital stay. [Randomized controlled trials](#) would best address the potential benefits of statins for influenza treatment, the researchers concluded, and "would allow for examination of such issues as dose response, use in younger age groups, and identifying the most effective class of statins."

In an accompanying editorial, Edward E. Walsh, MD, of the Infectious Diseases Division at Rochester General Hospital in Rochester, N.Y., noted that there have been previous observational studies suggesting statins may reduce mortality from influenza and pneumonia. "One of the important strengths of the current study," Dr. Walsh added, "is that only patients with laboratory-confirmed influenza were included in the analysis," avoiding the uncertainty of disease misclassification possible in other methods.

Provided by Infectious Diseases Society of America

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