

Higher dose flu shot decreases hospitalization of older nursing home residents

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In the largest nursing home study to date on the effect of high dose flu vaccine, researchers found that shots with four times the strength of standard flu shots significantly reduced the risk of being hospitalized during the influenza season. There was a 1.2 percent difference (19.7 percent versus 20.9 percent) in admission for the group that received the high dose vaccine compared to the one that received the standard dose vaccine. The findings were presented as a late breaking research presentation on Oct. 10 at the Infectious Diseases Society of America meeting in San Diego.

"If given to all approximately 1.5 million nursing home residents, a one percent drop in hospitalizations would translate to thousands fewer being hospitalized," said Stefan Gravenstein, MD, MPH, lead author of the study, Director of the Center for Geriatrics and Palliative Care at University Hospitals Case Medical Center, and on faculty at both the Case Western Reserve University School of Medicine and adjunct at the Warren Alpert Medical School at Brown University.

According to the Centers for Disease Control and Prevention (CDC), the risk of hospitalization is one in five during the flu season, the same as in this study.

The study involved more than 50,000 participants 65 years old and older (nearly 14,000 were over the age of 90) from 823 nursing homes in 38 states. The residents were given [influenza](#) shots to help protect them from influenza during the period of November 2013 to March 2014.

"Flu in a nursing home population is a major cause of hospitalizations," said Dr. Gravenstein. "In addition to pneumonia, flu can contribute to heart attacks, heart failure, and strokes, especially in an older nursing home population where it can easily spread among residents. In our study, for every 83 individuals receiving the high dose vaccine a person was prevented from being hospitalized during the [influenza season](#)," he said.

The nursing homes in the study were randomly assigned to one of two groups as a care standard for influenza prevention, with either the regular dose of the [influenza vaccine](#) or the high dose vaccine as the care standard for their residents age 65 and older.

The study was also of interest in that the benefit observed was during a year in which the dominant circulating influenza strain was one where benefit from vaccination has been questioned for this population.

Whether the higher dose becomes the preferred procedure for nursing homes would be determined by the Advisory Committee on Immunization Practices (ACIP), a group of medical and public health experts that develop recommendations on use of vaccines in the civilian population.

Provided by University Hospitals Case Medical Center

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