

Study finds older people with severe asthma need higher H1N1 vaccine dose

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(PhysOrg.com) -- Older people with severe asthma may need a double dose of H1N1 vaccine for adequate protection, according to a study headed by University of Wisconsin School of Medicine and Public Health (SMPH) scientists.

Dr. William Busse, professor of medicine in the allergy and [asthma](#) section of the School of Medicine and Public Health, directed the first multi-center clinical trial on adequate and safe [H1N1](#) vaccine dosages for people with asthma. During the 2009 pandemic, people with asthma were hospitalized at a rate four to five times higher than otherwise healthy adults.

The findings are published in the December issue of the *Journal of Allergy and Clinical Immunology*.

The study looked at the vaccine's safety for asthmatics and its ability to induce an [immune response](#) with two H1N1 doses (15mcg and 30mcg) for 390 men and women with mild to severe asthma. A second dose was administered three weeks after the first.

The research found that both doses, including the standard 15mcg dose, were adequate and safe for people with mild to moderate asthma. However, only 78 percent of older people with severe asthma were adequately immunized with the conventional dose compared to 94 percent with the higher dose.

"People aged 60 and older in particular were not adequately immunized against H1N1 with the lower, conventional vaccine dosage," said Busse. "That suggests older adults with severe asthma may need doses higher than the average person."

The current high-dose seasonal [vaccine](#), formulated to protect against H1N1, has an adequate dosage to protect people with severe asthma.

The study also found that the second vaccination given three weeks after the first did not provide further protection against H1N1. In fact, the findings also note that the immune protection dropped after the second vaccination for older participants with mild to moderate asthma. Busse says that could indicate that a higher dose would also be appropriate for them.

The study is co-sponsored by the National Institute of [Allergy](#) and Infectious Diseases (NIAID) and the National Heart, Lung and Blood Institute (NHLBI) Both NIAID and NHLBI are part of the National Institutes of Health (NIH).

In addition to the University of Wisconsin, six other research centers participated in the clinical trials including the Cleveland Clinic, Emory University, University of Pittsburgh, University of Virginia, Wake Forest University and Washington University.

More information: [www.jacionline.org/article/S0091-6749\(10\)2810-2901764-1/abstract](http://www.jacionline.org/article/S0091-6749(10)2810-2901764-1/abstract)

Provided by University of Wisconsin-Madison

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