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ADJUVANTED FLU VACCINE PROVIDES BETTER PROTECTION THAN HIGH-DOSE VERSION FOR AT-RISK ELDERLY

A study of patient data from the 2019-20 flu season in the U.S. found that the **adjuvanted flu vaccine** provided better **protection** than the high-dose flu vaccine against severe flu complications in at-risk elderly adults.

The study compared the trivalent adjuvanted flu vaccine (aTIV) with the high-dose trivalent flu vaccine (HD-TIV), both designed for adults aged 65 and older who are at high risk for severe flu complications. An adjuvant is an agent added to vaccines to **enhance the immune response.**

Previous studies indicated similar efficacy between the two vaccines in older adults, including those with at least one underlying condition known to increase the risk of severe flu. However, research on how multiple concurrent conditions affect vaccine efficacy has been limited.

Using data from **electronic pharmacy records and medical registries**, researchers estimated the relative vaccine effectiveness (rVE) of aTIV in 1,115,725 recipients and HD-TIV in 2,561,718 recipients from August 2019 to January 2020. The primary outcome was the prevention of flu-related medical visits (IRME). Secondary outcomes included IRME in outpatient settings and hospitalizations for flu and pneumonia.

Among older adults with risk factors for complications, aTIV was more effective than HD-TIV in preventing any IRME, with a relative vaccine effectiveness of 12.5% (95% confidence interval [CI], 10.0% to 15.0%) for those with one or more risk factors; 18.4% (95% CI, 13.7% to 22.8%) for those with one or two risk factors; and 10.4% (95% CI, 7.4% to 13.3%) for those with three or more risk factors. No difference in rVE was observed among elderly adults without risk factors.

Similar **trends** were observed for secondary outcomes, including outpatient IRME and hospitalizations related to flu or pneumonia.

The broader immune response provided by the MF59 adjuvant may explain the greater vaccine efficacy observed among the most vulnerable in the population study. However, further research is needed to investigate how the immune response generated by aTIV contributes to overall vaccine efficacy across populations with varying risk profiles.

Adapted after Chris Dall, 19 August 2024