National study finds any booster strategy more effective than single J&J vaccine to prevent moderate to severe COVID-19

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A new nationwide study from the U.S. Centers for Disease Control and

Prevention comparing booster strategies for the millions of people who have received Johnson and Johnson (J&J) vaccines, provides strong evidence that boosters following vaccination with the J&J vaccine are effective in protecting against hospitalizations from COVID-19.

"We found that any booster strategy is better than a single J&J dose, which should encourage anyone who has only had a J&J vaccine to get a second COVID-19 vaccine as soon as possible, especially before the expected next surge in COVID," said Brian Dixon, Ph.D., MPA, of the Regenstrief Institute and Indiana University Richard M. Fairbanks School of Public Health, who is the senior author on the CDC study. "Individuals with three doses of mRNA had the strongest level of protection against severe consequences from the disease, but being boosted made a significant difference in protection for those who had J&J vaccines."

Vaccine effectiveness against COVID-19-associated emergency department and urgent care visits was only 24% after one J&J vaccine. It increased to 54% after two J&J doses, and 79% after one J&J dose plus an mRNA booster. That's compared to 83% after three mRNA doses.

Vaccine effectiveness for the same strategies against COVID-19 associated hospitalizations was 31% for the single J&J shot, 67% for two J&J shots, 78% for one J&J shot and an mRNA booster, and 90% for three mRNA doses.

"Even though our study focused on booster effectiveness during the period of Omicron prevalence, data continue to show that we should expect that boosters will be effective against new variants as they emerge," said Dr. Dixon. "This paper reinforces the importance of getting boosted. It's important to do it now when rates of disease are low, so you are protected against the resurgence that we expect to see later this year, especially among individuals in high-risk groups."

More information: Karthik Natarajan et al, Effectiveness of Homologous and Heterologous COVID-19 Booster Doses Following 1 Ad.26.COV2.S (Janssen [Johnson & Johnson]) Vaccine Dose Against COVID-19–Associated Emergency Department and Urgent Care Encounters and Hospitalizations Among Adults—VISION Network, 10 States, December 2021–March 2022, *MMWR. Morbidity and Mortality Weekly Report* (2022). DOI: 10.15585/mmwr.mm7113e2

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