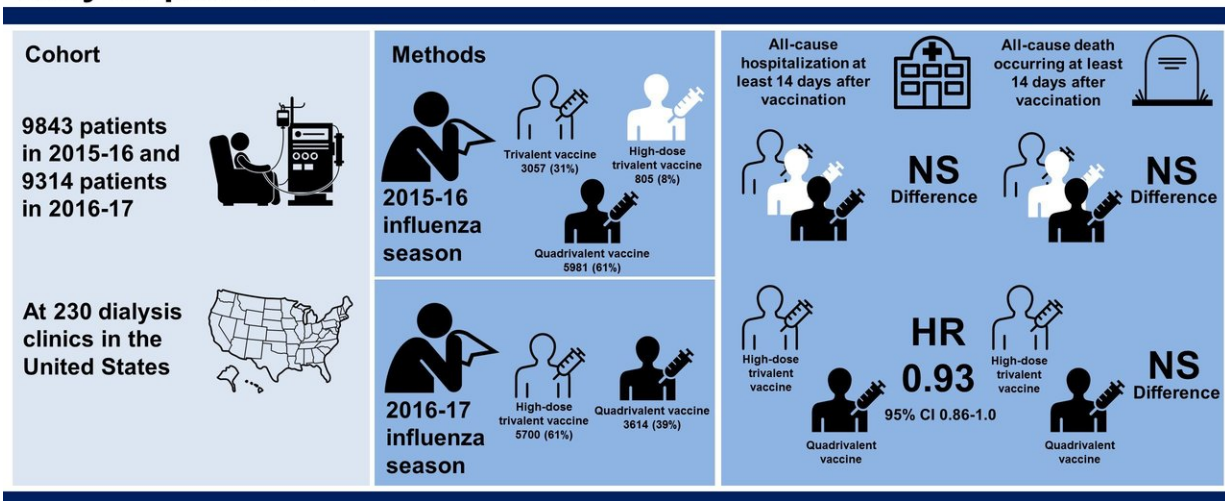


# High-dose influenza vaccine linked with lower hospitalization rates in dialysis patients

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## Does high-dose trivalent influenza vaccine benefit dialysis patients?

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**Conclusions** Receipt of high-dose as compared to standard dose influenza vaccine in 2016-17 was associated with lower rates of hospitalization in dialysis patients, although that was not seen in 2015-16.

Dana Miskulin, Daniel Weiner, Hocine Tighiouart, Eduardo Lacson Jr, Klemens Meyer, Taimur Dad, and Harold Manley. *High Dose Seasonal Influenza Vaccine in Patients Undergoing Dialysis*. CJASN doi: 10.2215/CJN.03390318

Credit: Miskulin

Results from a new study suggest that high-dose influenza vaccine is associated with lower risk for hospitalizations in kidney failure patients on dialysis. The findings appear in an upcoming issue of the *Clinical Journal of the American Society of Nephrology (CJASN)*.

High-dose [influenza vaccine](#), which contains fourfold more antigen than

the standard dose, is linked with fewer cases of [influenza](#) and less severe influenza symptoms in the elderly general population. Whether the high-dose influenza vaccine benefits dialysis [patients](#), whose immune response to vaccination is less robust than healthy patients, is uncertain. To investigate, Dana Miskulin, MD (Tufts Medical Center) and her colleagues compared hospitalizations and deaths during the 2015-16 and 2016-17 influenza seasons by vaccine type (standard trivalent, standard quadrivalent, and high-dose trivalent influenza vaccine) administered to more than 9000 patients in season within a national dialysis organization.

Receiving high-dose vs. standard dose influenza vaccine in 2016-17 was associated with lower rates of hospitalization in dialysis patients, although this association was not seen in 2015-16. There were no differences in rates of death between patients receiving the high-dose vs. standard dose influenza vaccine during either influenza season.

"We found that the administration of the high-dose influenza vaccine was associated with 8% fewer first hospitalizations than the standard dose vaccine in 2016-17. In 2015-16 there was no difference by vaccine type although statistical power was limited, with only 8% of patients receiving high dose that year, compared with 61% in 2016-17," said Dr. Miskulin.

Dr. Miskulin noted that the 2016-17 season results are consistent with lower hospitalizations with high-dose as compared with standard dose seen in the elderly general population. Adverse events were not collected in this study, but large clinical trials in the general population suggest that the high-dose vaccine is not associated with more adverse effects.

"While these results should not be considered definitive, because vaccine type was not randomized, they suggest that there may be a reduction in influenza related morbidity in dialysis patients with use of the high-dose vs. standard dose vaccine," said Dr. Miskulin.

Studies of other strategies to increase influenza vaccine effectiveness in [dialysis](#) patients and other immunocompromised populations, including the use of adjuvants and booster doses, could also be beneficial, according to an accompanying editorial by Megan Lindley, MPH and David Kim, MD (Centers for Disease Control and Prevention). "Even in the absence of increased vaccine effectiveness, improvements in influenza vaccination coverage among medically vulnerable populations such as [dialysis patients](#) could increase protection against influenza," they wrote. "In groups where the burden of influenza disease and its complications are disproportionately felt, small improvements in [vaccine](#) effectiveness and vaccination coverage may have large impacts."

**More information:** "High Dose Seasonal Influenza Vaccine in Patients Undergoing Dialysis," *Clinical Journal of the American Society of Nephrology* (2018). [DOI: 10.2215/CJN.03390318](https://doi.org/10.2215/CJN.03390318)

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