HIGH-DOSE INFLUENZA VACCINE LINKED WITH LOWER HOSPITALIZATION RATES IN DIALYSIS PATIENTS

Highlight

- 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 (when few dialysis patients received the high-dose vaccine).
- There were no differences in rates of death between patients receiving the high-dose vs. standard dose influenza vaccine during either time period.

Washington, DC (October 23, 2018) — 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.”

Study co-authors include Daniel Weiner, MD, Hocine Tighiouart, MS, Eduardo Lacson Jr., MD, Klemens Meyer, MD, Taimur Dad, MD, and Harold Manley, PharmD.

Disclosures: The authors reported no financial disclosures.


The content of this article does not reflect the views or opinions of The American Society of Nephrology (ASN). Responsibility for the information and views expressed therein lies entirely with the author(s). ASN does not offer medical advice. All content in ASN publications is for informational purposes only, and is not intended to cover all possible uses, directions, precautions, drug interactions, or adverse effects. This content should not be used during a medical emergency or for the diagnosis or treatment of any medical condition. Please consult your doctor or other qualified health care provider if you have any questions about a medical condition, or before taking any drug, changing your diet or commencing or discontinuing any course of treatment. Do not ignore or delay obtaining professional medical advice because of information accessed through ASN. Call 911 or your doctor for all medical emergencies.

Since 1966, ASN has been leading the fight to prevent, treat, and cure kidney diseases throughout the world by educating health professionals and scientists, advancing research and innovation.
communicating new knowledge, and advocating for the highest quality care for patients. ASN has more than 20,000 members representing 131 countries. For more information, please visit www.asn-online.org or contact the society at 202-640-4660.

###

Tweet: High-dose influenza vaccine linked with lower hospitalization rates in dialysis patients.

Facebook: Results from a new study suggest that high-dose influenza vaccine may help reduce hospitalizations in kidney failure patients on dialysis. The findings appear in the Clinical Journal of the American Society of Nephrology.