Vaccination Response to an Ongoing Meningitis Outbreak: Uptake and Attitudes among Men Who Have Sex with Men in Los Angeles, CA

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Model predicting MCV4 uptake.

Participants were young (M=33, SD=10) and racially/ethnically diverse: White (35.7%), Black/African American (14.6%), Hispanic (36.5%), Asian/Pacific Islander (4.1%), Other (9.2%). Reported MCV4 immunization among MSM (25.4%) and MSM living with HIV (37.7%) was low. Statistically significant correlates of MCV4 uptake included: multivariate model B (aOR=3.11), being younger age (aOR=2.21), believing MCV4 vaccination was important (aOR=3.45), having confidence in the MCV4 vaccine (aOR=5.43), and knowing someone who had received the vaccination (aOR=5.79). MSM's perceived health risk, vaccine confidence, and knowledge of someone who received the MCV4 vaccine were important indicators of meningitis immunization in this outbreak context. Provider and public health education efforts may be enhanced by messages that emphasize personal health risks, the safety and efficacy of MCV4, and the importance of meningococcal vaccines for men's health.

Popular opinion leader programs facilitated by someone who had been vaccinated are warranted to enhance MCV4 uptake.

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1351. Bivalent Norovirus VLP Vaccine Candidate in Older Adults: Impact of MPL and a Second Dose in a Randomized, Controlled, Double-Blind Clinical Trial  Jim Sherwood, BA1; Jakob Cramer, MD1; Nancy Bouveret Le Cam, MD2; Stella Lin, MD1; F. Baehner, MD1; Paul Mendelman, MD1; Astrid Borkowski, MD1; Development Center Americas, Inc., Deerfield, Illinois

Background. Acute norovirus (NoV) gastroenteritis may cause significant morbidity in healthy adults and can prove fatal in older subjects. We investigated the safety and immunogenicity in healthy adults and can prove fatal in older subjects. We investigated the safety and immunogenicity in healthy adults and can prove fatal in older subjects.

Method. In a phase II, double-blind, controlled trial, 294 healthy adults ≥ 60 years of age randomized to 4 equal groups received one or two immunizations 28 days apart. One dose groups received placebo (saline) on Day 1. Vaccine formulations with 50µg AK0941 and 50µg GILC4 VLP antigens, with or without 15µg MPL adjuvant. A fifth group of 26 healthy 18–49 year-olds received one dose of MFL-3D vaccine. Humoral immunity was assessed as ELISA pan-Ig and histoblood-group antigen blocking (HBGA) antibody titers at Days 1, 8, 29 and 57. Cell-mediated immunity (CMI) and avidity indices (AI) were also measured.

Results. Safety was assessed as solicited local and systemic adverse events (AE) for 7 days, and unsolicited AEs until Day 28 after each vaccination.

Conclusion. Older adults aged ≥ 60 years of age randomized to 4 equal groups received one or two immunizations 28 days apart. One dose groups received placebo (saline) on Day 1. Vaccine formulations with 50µg AK0941 and 50µg GILC4 VLP antigens, with or without 15µg MPL adjuvant. A fifth group of 26 healthy 18–49 year-olds received one dose of MFL-3D vaccine. Humoral immunity was assessed as ELISA pan-Ig and histoblood-group antigen blocking (HBGA) antibody titers at Days 1, 8, 29 and 57. Cell-mediated immunity (CMI) and avidity indices (AI) were also measured. Safety was assessed as solicited local and systemic adverse events (AE) for 7 days, and unsolicited AEs until Day 28 after each vaccination.

Marked increases in pan-Ig and HBGA to both genotypes occurred by Day 8 after first vaccination. Geometric mean titers were similar in magnitude in all groups and did not show similar levels through Day 56. No increases in unsolicited adverse events or changes in antibody avidity were observed between formulations. Both formulations were generally well tolerated, the most frequent reaction being mild pain at the injection site. No vaccine-related SAEs were reported.

Conclusion. Older adults aged 60 years displayed immune responses to NoV VLP vaccine that were similar to those in younger adults with no apparent signs of immunosenescence. These data support the further development of the MFL-3 free vaccine candidate in older adults.