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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1350. 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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Background. Men who have sex with men (MSM) are at high risk for invasive meningococcal disease (IMD). Following a 2016 IMD outbreak in Southern California, public health officials issued an advisory that urged at-risk adult gay and bisexual men to get vaccinated and all people with HIV, to obtain immunizations. Despite public health efforts to increase MCV4 coverage, uptake and acceptance among MSM remains unknown. Thus, our study sought to: (1) estimate reported MCV4 immunization among MSM in Los Angeles, CA; and (2) document the facilitators and barriers to the newest vaccination recommendation following the recent outbreak.

Methods. From November 2016 through February 2017, we used venue-based sampling to recruit MSM in Los Angeles (N = 513). Eligible participants completed a 30-minute iPad survey that included items on MCV4 status, sexual behavior, vaccination knowledge and behaviors among other factors. Chi-square and independent sample t-tests were used to determine bivariate associations. Statistically significant variables from bivariate analyses were included in a multivariate logistic regression model predicting MCV4 uptake.

Results. Participants were young (mean=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 were: bisexual relationship status to young men’s age (aOR=2.51), pre-STI diagnosis (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). For MCV4 intent, 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.

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
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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 older adults of one or two doses of an intramuscular bivalent virus-like particle (VLP) vaccine candidate (genotypes GI.1 and multivalent GII.4c) formulated with alum and with/without MPL (3-O-deacyl-4′-monophosphoryl lipid A) adjuvant.

Methods. 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 included a 50μg GI.1 VLP antigen, or 50μg GII.4c VLP antigen, or both VLP antigens at Day 1 and with or without 15μg MPL adjuvant. A fifth group of 26 healthy 18–49 year-olds received one dose of MPL-free vaccine. Humoral immunity was assessed as ELISA pan-Ig and histo-blood 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.

Results. Marked increases in pan-Ig and HBGA to both genotypes occurred by Day 29 with the formulations containing MPL. Responses were similar in magnitude when assessed by age groups (60–74, 75–84 and ≥85 years of age) and when compared with those to a single vaccine dose in 18–49 year-olds. No clinically relevant differences in CMI responses 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 over 60 years displayed immune responses to NoV VLP vaccines that were similar to those in younger adults with no apparent signs of immunosenescence. These data support the further development of the MPL-free vaccine candidate in older adults.


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Background. Herpes zoster (HZ), or shingles, is a viral infection caused by varicella-zoster virus (VZV). The disease typically presents as a painful skin rash called shingles, which usually affects one side of the body. While HZ typically affects older adults, it can occur at any age. The most common risk factor for developing HZ is getting older. Other risk factors include a history of cancer, diabetes, HIV, chronic kidney disease, and liver disease.

Methods. The Herpes Zoster Vaccine Study (HZVS) was a randomized, controlled, double-blind, placebo-controlled trial conducted in the United States to evaluate the efficacy and safety of a new herpes zoster vaccine in older adults.

Results. The study included over 38,000 participants aged 60 years and older. The vaccine was found to be highly effective in preventing HZ and postherpetic neuralgia (PHN) compared to placebo. The vaccine was well tolerated, with a similar safety profile to that seen in placebo recipients.

Conclusion. The herpes zoster vaccine has been shown to be effective and safe for the prevention of HZ and PHN in older adults. It is recommended for individuals aged 60 years and older who are at increased risk of developing HZ.