2455. Is Category B Working? Uptake Patterns of Meningococcal Group B Vaccine Among US Adolescents and Young Adults
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Session: 251. Adolescent Vaccines Saturday, October 6, 2018: 12:30 PM

Background. In October 2015, ACIP recommended that serogroup B meningococcal vaccine may be administered to persons aged 16–23 years (age 16–18 preferentially) as Category B (individual clinical decision-making), in addition to the licensed quadrivalent meningococcal conjugate vaccine (NCT02982535) and MenACWY-CRM induced robust boosting in adolescents and adults already vaccinated than those parents who did not receive the recommendation from their HCP. These data underscore the critical need for robust understanding and consistent implementation of ACIP’s Category B recommendation to reduce inequities in MenB vaccine awareness and utilization.

Results. Of the weighted sample, 57% were unaware of MenB vaccines (Figure 1). Among 2,501,188 AYAs aged 10–25 years, MenB vaccine uptake was only 1.4% at the end of May 2017. MenB vaccination varied by age, with uptake of 0.2% in ages 10–15, 1.6% in ages 16–18, and 24.5% in ages 19–24 years (P < 0.01, respectively). Lower uptake was observed for non-Hispanic blacks (1.0% vs. 1.4% among non-Hispanic whites, P < 0.01), AYAs in lower income households (1.0% vs. 2.2% lowest vs. highest income deciles, P < 0.01), and those living in rural (0.6%) or urban/inner-city (0.9%) areas (vs. 1.5% in suburban areas, P < 0.01). The strongest predictors of MenB vaccination were previously receiving quadrivalent meningococcal vaccine (MenACWY) or human papillomavirus (HPV) vaccines. These AYAs were 36.1 and 5.1 times more likely to have received MenB vaccine and had MenB uptake of 9.8% and 5.1%, respectively.

Conclusion. As of May 2017, MenB vaccine uptake among AYAs aged 10–25 years was low (<2%). Even though absolute differences were small, significant disparities in MenB vaccine uptake existed. Uptake was notably higher for AYAs who had received ≥2 doses of MenACWY or HPV vaccine. This suggests MenB vaccination is occurring primarily among AYAs who have received other Category A vaccines, and that conversations between clinicians and patients about MenB vaccination—which are at the heart of a Category B recommendation—are limited outside of this context. Given the real-world inadequacies of a Category B recommendation highlighted by our study, future efforts should improve the AYAs vaccination platform to ensure adequate immunization of MenB, especially in underserved communities.

Disclosures. F. L. Khan, Pfizer, Inc.: Employee and Shareholder, Salary and Stock and Stock Options. D. L. Seward, Pfizer, Inc.: Employee and Shareholder, Salary. L. J. York, Pfizer, Inc.: Employee and Shareholder, Salary and Stock and Stock Options. P. Balmer, Pfizer, Inc.: Employee and Shareholder, Salary and Stock and Stock Options. R. E. Isturiz, Pfizer, Inc.: Employee and Shareholder, Salary and Stock and Stock Options. J. M. McLaughlin, Pfizer, Inc.: Employee and Shareholder, Salary and Stock and Stock Options.

2456. Immunogenicity and Safety of a MenACWY-CRM Booster Dose 4–6 Years After Primary Quadrivalent Meningococcal Conjugate Vaccination in Healthy US Adolescents and Adults
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Session: 251. Adolescent Vaccines Saturday, October 6, 2018: 12:30 PM

Background. Neisseria meningitidis serogroups A, B, C, W, and Y are a leading cause of bacterial meningitis and sepsis worldwide. Infants <1 year, adolescents and young adults are at the highest risk. The US Advisory Committee on Immunization Practices (ACIP) recommends routine MenACWY conjugate vaccination for adolescents at 11–12 years of age, with a booster dose 5 years later. We examined responses to a booster dose of MenACWY-CRM given 4–6 years after primary vaccination with a licensed quadrivalent meningococcal conjugate vaccine (NCT02982535).

Methods. 602 adolescents and adults aged 15–55 years who had received either MenACWY-CRM (N = 301) or MenACWY-D (N = 301) 4–6 years earlier, and a control group of vaccine-naive participants (N = 102) were enrolled at 37 centers across the US and 701 overall received a single dose of MenACWY-CRM at Day 1, across study groups. Immunogenicity was evaluated pre-vaccination, either 4 or 6 days post-vaccination (sampling subgroups) and 29 days post-vaccination by serum bactericidal activity assay using human complement (iSBRA). After vaccination, all participants were to be monitored for 7 days for reactogenicity, 29 days for unsolicited adverse events (AES), and 6 months for occurrence of medically attended events, AES leading to withdrawal and serious AES.

Results. 16% of the immune response to a booster dose of MenACWY-CRM was demonstrated as the lower limit of the 1-sided 97.5% confidence interval for the proportion of responders to the MenACWY meningococcal vaccine. A difference between the proportions of responders to MenACWY meningococcal vaccine was found to be significant between the categories of vaccine receipt at year 4, with the proportion of responders to MenACWY meningococcal vaccine being higher among adolescents who had received MenACWY-CRM (N = 301) than MenACWY-D (N = 301) 4–6 years earlier, and a control group of vaccine-naive participants (N = 102) was enrolled at 37 centers across the US and 701 overall received a single dose of MenACWY-CRM at Day 1, across study groups. Immunogenicity was evaluated pre-vaccination, either 4 or 6 days post-vaccination (sampling subgroups) and 29 days post-vaccination by serum bactericidal activity assay using human complement (iSBRA). After vaccination, all participants were to be monitored for 7 days for reactogenicity, 29 days for unsolicited adverse events (AES), and 6 months for occurrence of medically attended events, AES leading to withdrawal and serious AES.

Conclusion. MenACWY-CRM induced robust boosting in adolescents and adults already vaccinated with a quadrivalent meningococcal conjugate vaccine 4–6 years earlier, with an acceptable clinical safety profile.

Funding: GSK Biologics SA.

Disclosures. S. L. Block, GSK: Research Contractor, Research support. P. Keshavan, GSK Vaccines: Employee, Salary. T. Mzolo, GSK Vaccines: Employee, Salary. M. Pellegrini, GSK Vaccines S.r.l.: Employee and Shareholder, Salary.

2457. Multivariate Analyses of Socio-Economic Inequities in Parental Awareness and Utilization of Meningococcal Serogroup B Vaccines
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Session: 251. Adolescent Vaccines Saturday, October 6, 2018: 12:30 PM

Background. In 2015, the US Advisory Committee on Immunization Practices (ACIP) made a Category B recommendation for serogroup B meningococcal (MenB) vaccines for adolescents 16–18 years. In 2016, MenB caused ~60% of invasive meningococcal disease among US individuals 16–23 years old; however, utilization of MenB vaccines was much lower than other vaccines with Category A recommendations. Therefore, we examined factors associated with awareness and utilization of MenB vaccines.

Methods. An online quantitative survey was fielded among 619 US parents of adolescents aged 16–19 years, recruited from GfK’s KnowledgePanel in December 2016. Demographics, access to care, decision making, and vaccine use were collected. A population-based weighting method was applied. Four logistic regressions and Classification And Regression Trees (CART) were conducted to examine most influential factors associated with MenB vaccine awareness and utilization.

Results. Of the weighted sample, 57% were unaware of MenB vaccines (Figure 1). Results from logistic regression models (Table 1) revealed that awareness was likely associated with gender and race. Parents who obtained a recommendation from HCPs were 4.8 (95% CI: 2.5–9.4) times more likely to vaccinate or intend to vaccinate their adolescent compared to those parents who were 4.8 (95% CI: 2.5–9.4) times more likely to vaccinate or intend to vaccinate their adolescent compared to those parents who did not receive the recommendation from HCP. Race/ethnicity and insurance type were associated with awareness and vaccine utilization. The results from CART verified that HCP’s recommendation is the most influential factor to predict the vaccine status of parents and their relationship with HCP’s were among the most influential predictors of awareness of MenB vaccines or interest in learning about MenB vaccines if they were unaware.

Conclusion. MenB awareness and vaccination are associated with parents’ social status and HCP’s recommendation. Even among those unaware, there was a willingness to vaccinate when recommended by an HCP. These data underscore the critical need for robust understanding and consistent implementation of ACIP’s Category B recommendation to reduce inequities in MenB vaccine awareness and utilization.