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Session: 251. Adolescent Vaccines Saturday, October 6, 2018: 12:30 PM

Background. The first quadrivalent meningococcal conjugate vaccine (MenACYW-TT) reported for use in adolescents in 2005. Soon after, case reports of Guillain-Barré syndrome (GBS) following vaccination prompted subsequent studies, with a meta-analysis concluding that the attributable risk of GBS after MenACYW-D is unlikely to exceed 1 case per million vaccinations. We conducted a retrospective cohort study in the Vaccine Safety Datalink to assess the risk of 10 outcomes, including GBS, following MenACYW-D.

Methods. We included adolescents (aged 11–18 years) vaccinated with MenACYW-D during the years 2005–2014. We identified pre-specified outcomes using ICD-9 (International Classification of Disease, version 9) codes. We used automated data only for fever, seizure, syncope, and we confirmed incident cases by medical record review for acute disseminated encephalomyelitis (ADEM), acute transverse myelitis (ATM), anaphylaxis, chronic inflammatory demyelinating polyneuropathy (CIDP), GBS and Henshoch-Schönlein purpura (HSP). We used a self-controlled risk interval design to estimate relative risk (RR).

Results. Following 1.4 million doses of MenACYW-D, we detected increased risks for fever in the 1–6 days following vaccination (RR 1.5, 95% confidence interval [CI] 1.3–1.7) and syncope on the day of vaccination (RR 5.8, 95% CI 4.1–8.3), but not for seizures (RR 1.1, 95% CI 0.7–1.9) or Bell’s palsy (RR 1.1, 95% CI 0.8–1.5). We detected no cases in the post-vaccination risk intervals for CIDP, ADEM or ATM. We detected few cases of the other outcomes resulting in relatively unstable RR estimates: anaphylaxis (RR 1.9, 95% CI 0.5–7.1), GBS (RR 2.5, 95% CI 0.6–10.0) and HSP (RR 1.6, 95% CI 0.7–3.3). We estimated that the attributable risk of GBS was 1.5 cases per million vaccinations (upper bound of one-sided 95% CI, 4.9).

Conclusion. In a large retrospective cohort, we detected increased risks for syncope and fever, but not seizures or Bell’s palsy, following vaccination with MenACYW-D. Outcomes were rare. Our findings, consistent with previous studies, suggest that the increased risk of GBS, if any, is likely small (<5 excess cases of GBS per million vaccinations).

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2462. Immunogenicity and Safety of a Quadrivalent Meningococcal Conjugate Vaccine (MenACYW-TT) Administered in Individuals 56 Years of Age and Older Robert W. Wheat, MD, MPH, Andrea Esteves-Jaramillo, MD, MPH, MHS, MPH1, Eliza M. Novartis Pharmacists1, Emilia Jordanov, MD, and Mandeeep S Dhingra, MD2, MedPharmics, LLC, Metairie, Louisiana, 1Global Clinical Sciences, Sanofi Pasteur, Swiftwater, Pennsylvania, 2Global Pharmacovigilance, Sanofi Pasteur, Swiftwater, Pennsylvania, 3Sanofi Pasteur, Swiftwater, Pennsylvania

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Background. The MenACYW-TT conjugate vaccine is a quadrivalent meningococcal vaccine candidate intended for global use in all age groups. This Phase III trial was conducted in the United States through the end of 2017. We analyzed the first 3 years of US post-licensure safety data in the Vaccine Adverse Event Reporting System (VAERS).

Methods. We searched VAERS, a spontaneous reporting system, for US reports of adverse events (AEs) following MenACYW-TT from December 1, 2014 to December 31, 2017. We conducted descriptive analysis of reports and assessed the most common signs and symptoms of AEs. Physicians reviewed reports and available medical records for reports classified as serious (death, life-threatening illness, hospitalization, prolongation of hospitalization and permanent disability) and for selected pre-specified conditions of interest.

Results. VAERS received 7,244 reports following MenACYW-TT; 186 (2.6%) were classified as serious. In 5,411 (74.7%), MenACYW-TT was administered alone. The most frequently reported symptoms were dizziness (579; 8.6%), syncope (517; 7.1%), headache (418; 6.8%), nausea (361; 5.6%), and injection site pain (324; 4.5%). Median time from vaccination to symptom onset was <1 day (range 0–751 days). There were 7 (0.1%) death reports; 2 verified from autopsy report, death certificate, and/or medical records (causes of death were cardiac arrest and cerebellar aneurysm) and 5 “hearsay” reports with no verifiable medical information. Reports of selected pre-specified conditions of interest included anaphylaxis (9; 0.1%), Guillain-Barré syndrome (8; 0.1%), postural orthostatic tachycardia syndrome (17; 0.2%), primary ovarian insufficiency (3; <0.1%), and complex regional pain syndrome (1; <0.1%). No unusual clustering around onset interval was observed.

Conclusion. In our VAERS review, the safety profile of MenACYW-TT was consistent with that observed from pre-licensure clinical trials and from post-licensure safety monitoring of other HPV vaccines. We did not observe any new safety signals or unexpected patterns of AE.

Disclosures. All authors: no reported disclosures.

2464. A Significant Portion of College Students Are Not Aware of HPV Disease and HPV Vaccine Recommendations Jessica Leyva, Expected: Bachelor's Degree1; Elizabeth Sanchez, Expected: Bachelor's Degree2; Ayana Arroyo, Expected: Bachelor's Degree1; Kasia Wade, Expected: Bachelor's Degree1; Nguyen Dinh, Expected: Bachelor's Degree2; Cailyn Kellogg, BA1 and Ozlem Equils, MD1,2,3,4; 1California State University, Long Beach, Long Beach, California, 2MiOra, Los Angeles, California, 3Cedars-Sinai Medical Center, UCLA School of Medicine, MiOra, Los Angeles, California

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Background. Although HPV vaccination has been shown to be very effective in preventing genital warts and cancers caused by the vaccine strains, immunization rates are low, especially among young men and certain ethnic groups. ACIP has recommended that the HPV vaccine be administered to females through age 26 and males through age 21 (26 in MSM). Therefore, there is a significant amount of time for catch up. We assessed college students’ awareness of HPV disease and ACIP HPV vaccine recommendations in Los Angeles County.

Methods. A 31-question survey was developed and IRB approved (WIRB No 1920852-43973015). CSULB Health Sciences students were trained on HPV disease and prevention, and they administered the survey in-person to other students at various locations on campus and recorded the data.

Results. A hundred eighty six students were surveyed from February to April 2018. The average age of the respondents was 21 ± 2 years. The majority (110 out of 180; 61.1%) of the respondents were female. 75 out of 180 (41.7%) respondents were Latino/Hispanic, 62 out of 180 (34.4%) were Caucasian, 30 out of 180 (16.7%) were Asian